



**VOL 4(1)**

**e-ISSN**

**2602-3733**

**Research on Education  
and Psychology (REP)**

**Bülent Dilmaç (Editor-in-Chief, PhD)**  
Necmettin Erbakan University, Konya, Turkey

**Halil Ekşi (Editor, PhD)**  
Marmara University, İstanbul, Turkey  
Subject Area: Psychology

**Osman Tolga Arıca (Editor, PhD)**  
Hasan Kalyoncu University, Gaziantep, Turkey  
Subject Area: Psychology

**Sevim Cesur (Editor, PhD)**  
İstanbul University, İstanbul, Turkey  
Subject Area: Psychology

**Ahmet Akin (Editor, PhD)**  
İstanbul Medeniyet University, İstanbul, Turkey  
Subject Area: Psychological Counseling and Guidance

**Füsun Ekşi (Editor, PhD, Assoc. Prof. of Education)**  
İstanbul Medeniyet University, İstanbul, Turkey  
Subject Area: Psychological Counseling and Guidance

**Tolga Seki (Editor, PhD, Assoc. Prof. of Education)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Psychological Counseling and Guidance

**İrfan Erdoğan (Editor, PhD, Prof. of Education)**  
İstanbul University, İstanbul, Turkey  
Subject Area: Educational Administration and Supervision

**Mustafa Yavuz (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Educational Administration and Supervision

**Yan Liu (Editor, PhD)**  
Central Connecticut State University, USA  
Subject Area: Educational Administration and Supervision

**Mustafa Otrar (Editor, PhD)**  
Marmara University, İstanbul, Turkey  
Subject Area: Measurement and Evaluation in Education

**Ayfer Sayın (Editor, PhD)**  
Gazi University, Ankara, Turkey  
Subject Area: Measurement and Evaluation in Education

**Georgina Durate (Editor, PhD)**  
Indiana State University, USA  
Subject Area: Curriculum and Instruction

**Ömer Beyhan (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Curriculum and Instruction

**Işıl Tanrıseven (Editor, PhD)**  
Mersin University, Mersin, Turkey  
Subject Area: Curriculum and Instruction

**Şeyma Akın (Editor)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Sociology of Education

**Karen Wicketl (Editor, PhD)**  
Plymouth University, Plymouth, United Kingdom  
Subject Area: Early Childhood Education

**Ozana Ural (Editor, PhD)**  
Marmara University, İstanbul, Turkey  
Subject Area: Early Childhood Education

**Ümit Deniz (Editor, PhD)**  
Gazi University, Ankara, Turkey  
Subject Area: Early Childhood Education

**Özcan Karaaslan (Editor, PhD)**  
Marmara University, İstanbul, Turkey  
Subject Area: Special Education

**Salih Çakmak (Editor, PhD)**  
Gazi University, Ankara, Turkey  
Subject Area: Special Education

**Cladiu Marian Bunăiaşu (Editor, PhD)**  
Craiova University, Romania  
Subject Area: Foreign Language Education

**Fatih Tepebaşlı (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Foreign Language Education

**Mustafa Serkan Öztürk (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Foreign Language Education

**Ali Fuat Arıcı (Editor, PhD)**  
Yıldız Teknik University, İstanbul, Turkey  
Subject Area: Turkish Language Learning

**Hakan Taş (Editor, PhD)**  
Marmara University, İstanbul, Turkey  
Subject Area: Turkish Language Learning

**Mustafa Kaçalin (Editor, PhD)**  
Marmara University, İstanbul, Turkey  
Subject Area: Turkish Language Learning

**Ebru Kılıç Çakmak (Editor, PhD)**  
Gazi University, Ankara, Turkey  
Subject Area: Computer Education and Instructional Technologies

**Bahadır Kılcan (Editor, PhD)**  
Gazi University, Ankara, Turkey  
Subject Area: Social Sciences Education

**İbrahim Yüksel (Editor, PhD)**  
Gazi University, Ankara, Turkey  
Subject Area: Science Education

**Hakan Kurt (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Science Education

**Mehmet Kızılkaya (Editor, PhD)**  
Kâtip Çelebi University, İzmir, Turkey  
Subject Area: Medical & Health Education

**Sevim Ulupınar (Editor, PhD)**  
İstanbul University, İstanbul, Turkey  
Subject Area: Medical & Health Education

**Ayşe Tuğba Öner (Editor, PhD)**  
İstanbul Medeniyet University, İstanbul, Turkey  
Subject Area: Mathematics Education

**Erhan Ertekin (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Mathematics Education

**Mary Margaret Capraro (Editor, PhD)**  
Texas A&M University, USA  
Subject Area: Mathematics Education

**Robert M. Capraro (Editor, PhD)**  
Texas A&M University, USA  
Subject Area: Mathematics Education

**Tuğba Horzum (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Mathematics Education

**Hasan Hüseyin Bircan (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Philosophy Group Training

**Bilal Kuşpınar (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Philosophy of Education

**Oğuz Dilmaç (Editor, PhD)**  
Atatürk University, Erzurum, Turkey  
Subject Area: Fine Arts Education

**Mohammed Al-Amri (Editor, PhD)**  
Sultan Qaboos University, Umman  
Subject Area: Fine Arts Education

**Teresa Eca (Editor, PhD)**  
Porto University, Portugal  
Subject Area: Fine Arts Education

**Ahmet Uzun (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Sport and Education

**Mustafa Sarıtepeci (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Lifelong Learning

**Hatice Yıldız Durak (Editor, PhD)**  
Bartın University, Bartın, Turkey  
Subject Area: Lifelong Learning

**Eda Ercan Demirel (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Language Editors

**Galip Kartal (Editor)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Language Editors

**Mustafa Serkan Öztürk (Editor, PhD)**  
Necmettin Erbakan University, Konya, Turkey  
Subject Area: Language Editors

International Editorial Board

Adnan Baki (Karadeniz Teknik University)  
Adnan Kulaksızoğlu (İstanbul Sabahattin Zaim University)  
Aidata Cornelia Stoian (University of Craiova, Romania)  
Alexandru Constantin Strungă (University of Craiova, Romania)  
Ali Karababa (Uşak University)  
Besra Taş (İstanbul Sabahattin Zaim University)  
Çiğdem Kılıç (İstanbul Medeniyet University)  
Daniela-Viorica Osiac (University of Craiova, Romania)  
Deniz Gülmez (Necmettin Erbakan University)  
Emine Erkin (Boğaziçi University)  
Hasan Bacanlı (Fatih Sultan Mehmet University)  
Hatice İrem Özteke Kozan (Necmettin Erbakan University)  
Kamil Arif Kırkiç (İstanbul Sabahattin Zaim University)  
Mehmet Dinç (Hasan Kalyoncu University)  
Mehmet Kandemir (Kırıkkale University)  
Mehmet Mart (Necmettin Erbakan University)  
Muhammad Akram (University of Education, Pakistan)  
Mustafa Baloğlu (Hacettepe University)  
Mustafa Kınık (Necmettin Erbakan University)  
Özer Yıldız (Necmettin Erbakan University)  
Patrick Rowley (Rosemont College)  
Roslinda Rosli (University of Kebangsaan, Malaysia)  
Seung-Hwan Ham (Hanyang University, South Korea)  
Soner Durmuş (Abant İzzet Baysal University)  
Şahin Kesici (Necmettin Erbakan University)  
Yisu Zhou (Macau University, China)  
Zhidong Zhang (Texas Rio Grande Valley University, USA)

List of Reviewers for Vol. 4 Issue: 1

Ali Karababa (Uşak University)  
Deniz Gülmez (Necmettin Erbakan University)  
Elif Esra Arıkan (İstanbul Sabahattin Zaim University)  
Esra Kısacık (Nuh Naci Yazgan University)  
Esra Töre (İstanbul Sabahattin Zaim University)  
Gökhan Baş (Niğde Ömer Halisdemir University)  
Hatice İrem Özteke Kozan (Necmettin Erbakan University)  
İzzet Görgeç (Muğla Sıtkı Koçman University)  
Kamil Yıldırım (Aksaray University)  
Mustafa Serkan Öztürk (Necmettin Erbakan University)  
Necmi Gökyer (Fırat University)  
Nesibe Günay Molu (Necmettin Erbakan University)  
Saliha Defne Erdem Mete (Selçuk University)  
Sevginar Vatan (Hacettepe University)  
Tolga Seki (Necmettin Erbakan University)  
Tuba Özaydın (Selçuk University)  
Tuncay Oral (Pamukkale University)

\* In alphabetical order

URL: <http://dergipark.gov.tr/rep>  
Email: [editor.journalrep@gmail.com](mailto:editor.journalrep@gmail.com)

# ■ Table of Contents

## Research Articles

**Hamide Ayyör, Aliye Çayır**

*The Effect of Nursing Students' General Self-Efficacy on Gender Roles* ..... 1

**Kamil Arif Kırkıç, Ahmet Pulat**

*Do Primary Schools Exist Only for Academic Achievement? The School Characteristics that Affect Parents' Private Primary School Preferences for Their Children* ..... 20

**Gamze Arğıt, Eda Ercan Demirel, Onur Köksal**

*Teaching Vocabulary through Games: A Comparative Study of 4th and 7th Grades*..... 41

**Füsün Gülderen Alacapınar, Hatice Uysal**

*The Effect of Cooperative Learning in Education: A Meta-Analysis Study* ..... 54

**Aysel Ateş, Ali Ünal**

*Parents Educational Concerns about Their Middle School Children* ..... 73

**Yusuf Bayar, Melike Sayıl, Yeliz Kındap Tepe**

*The Relationship of Autonomous Motivation to Prosocial Behavior: Mediator Role of Prosocial Friends and Friendship Quality among Turkish Adolescents* ..... 98

**Hatice Seher Özpehriz**

*Positive Prevention Theory: The Investigation of Parenting Styles as A Predictor of Optimism* ..... 114

Received: November 11, 2019

Accepted: January 15, 2020

<http://dergipark.org.tr/rep>

e-ISSN: 2602-3733

Copyright © 2020

June 2020 • 4(1) • 1-19

*Research Article*

## The Effect of Nursing Students' General Self-Efficacy on Gender Roles

Hamide Aygör<sup>1</sup>

*Necmettin Erbakan University*

Aliye Çayır<sup>2</sup>

*Necmettin Erbakan University*

### Abstract

Gender roles define the features and behaviors traditionally attributed to the both sex. This study was therefore designed to determine the relationship between the general self-efficacy and gender roles of students studying in a faculty of nursing and the factors affecting their gender roles. The study universe consists of nursing students studying in the 2018-2019 school year in the Faculty of Nursing of a university. No sample was chosen in the study. The personal data form, gender roles attitude scale and general self-efficacy scale were used to collect data by researchers. The analyses of the data obtained in the study were conducted using SPSS 20 statistical analysis program. As a result of the study, students' general self-efficacy was found to be at midlevel, while they adopt the traditional attitude related to gender roles; besides, factors affecting students' gender roles attitude were found as sex, grade, and mother's educational status; furthermore, no relationship was found between the general self-efficacy and gender roles attitude. In order to create awareness about gender roles, it may be suggested that gender equality courses should be taught in all departments of universities.

### Key Words

Gender roles • General self-efficacy • Nursing

<sup>1</sup> **Correspondance to:** Hamide Aygör (PhD), Department of Obstetrics and Gynecology Nursing, Necmettin Erbakan University, Faculty of Nursing, Konya, Turkey. Email: hamidedindas@hotmail.com **ORCID:** 0000-0001-7920-6279

<sup>2</sup> Department of Nursing Education , Necmettin Erbakan University, Faculty of Nursing, Konya, Turkey. Email: aliye.cyr@gmail.com **ORCID:** 0000-0003-0760-4248

Gender is the personality characteristics and behaviors ascribed to women and men by society (Dökmen, 2012). It includes the expectations of society and culture, the gender-specific meanings and psychological characteristics. It determines the aspects of gender differences in social context (Orhan & Yücel, 2017). It contains many concepts such as gender and gender roles.

Gender roles define the features and behaviors traditionally attributed to the both sex. As a result of gender roles, the individual is expected to playing the specific man or woman role which is dictating by society. Society demands from women and men to stay loyal to these roles dictated (Cornell, 2016; Dökmen, 2012). Gender roles are affected by many factors. Studies conducted reveal that these factors are sex, financial condition, educational status, family type, and employment status (Can, Erenoğlu, & Tambağ, 2018; Güzel, 2016; Seven, 2019).

Self-efficacy refers to “an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments” (Bandura, 1977). A strong self-efficacy ensures success and well-being, and most importantly, personal development and diversity of skills. On the other hand, the attitude towards life also influences the views and roles (Bandura, 2012). Self-efficacy makes a difference in way of thinking, feeling and behavioral pattern of individuals (Abdel Khalek & Lester, 2017). There is a limited number of studies in the literature on gender and self-efficacy, besides, several studies state that individuals with a high self-efficacy level have a higher level of gender perception (Özpulat, 2016), or some others argue that there is no relationship between gender perception and self-efficacy (Özpulat & Varış, 2018).

No studies were found in the literature examining the effect of self-efficacy on gender roles. This study was therefore designed to determine the relationship between the general self-efficacy and gender roles of students studying in a faculty of nursing and the factors affecting their gender roles.

## Method

### Research Model

This research is a descriptive type.

### Study Universe and Group

The study universe consists of nursing students studying in the Department of Nursing in the 2018-2019 school year in the Faculty of Nursing of a university located in Konya. A total of 503 students studying in the Department of Nursing at 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades during the spring term. No sampling method was used in the study, besides, the study was completed with 406 students meeting the inclusion criteria (students studying in the Department of Nursing at 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades, being volunteered to participate in the study and completed the questionnaire completely).

According to the post hoc power analysis performed by G\*Power (3.1.9.2) program based on R2: .29 value obtained with regression analysis, which determined that three independent variables were effective on the total score of the Gender Roles Attitude Scale of the students and considered to be the primary outcome of this study, the effect size was found as f2: .41 (major effect) and power were 1.00 (%100); furthermore, the number of samples in the study was found to be sufficient (Karagöz, 2014).

### Data Collection and Data Collection Tools

The Personal Data Form, Gender Roles Attitude Scale and General Self-Efficacy Scale were used to collect data by researchers.

**Personal Data Form.** It was prepared by the researchers as a result of related literature review (Altıparmak, 2018; Can et.al., 2018; Köken Durgun & Cambaz Ulaş, 2019; Türkmenoğlu Zöhre & Vefikuluçay, 2018). It consists of 13 questions such as age, gender, marital status, class, the place of residence and region, residence in Konya, income assessment, types of family, educational and employment status of mother and father.

**The Gender Roles Attitude Scale (GRAS).** This scale was developed by Zeyneloğlu and Terzioğlu (2011), to determine the attitudes of individuals towards gender roles. This 38-item scale consists of five subscales (egalitarian gender roles, female gender roles, marriage gender roles, traditional gender roles and male gender roles), and is a 5-point likert type scale (egalitarian attitude responses to gender roles; 5 points for “completely agree”, 4 points for “agree”, 3 points for “undecided”, 2 points for “disagree”, and 1 point for “absolutely disagree”). The highest possible score from the scale was 190 and the lowest was 38 according to this scoring scale. If the total score mean from all items on the scale was 95 and above, it is stated that the sample adopts an egalitarian attitude. If the total score mean was below 95, the sample was stated to adopt a traditional attitude. The Cronbach's Alpha coefficient of the scale was reported as 0.92 (Zeyneloğlu & Terzioğlu, 2011). In this study, the Cronbach's Alpha coefficient of GRAS was found as follow: .95 for all scale; among the subscales, .92 for egalitarian gender roles; .73 for female gender roles; .94 for marriage gender roles; .81 for traditional gender roles, and .82 for male gender roles.

**General Self-Efficacy (GSE) Scale.** It was developed by Schwarzer and Jarusalem in 1979 to determine general self-efficacy perceptions. The Turkish validity and reliability study was performed by Aypay in 2010. It is a 10-item scale and in 4-point likert type (1 point for “not at all true”, 2 points for “hardly true”, 3 points for “moderately true”, and 4 points for “exactly true”). The points range from 1 to 4 for each item of the scale. The highest possible score from the scale was 40 and the lowest was 10 according to this scoring scale. It is concluded that as the points taken from the General Self-Efficacy Scale increase, the perception of general self-efficacy increase, too. The internal consistency coefficient of Cronbach's Alpha was .86 (Aypay, 2010). The GSE Scale Cronbach Alpha coefficient was found as .87 in this study. Data were collected by self-report method.

### Data Analysis

The analyses of the data obtained in the study were conducted using SPSS 20 statistical analysis program (Chicago, IL, USA). For data analysis, number, percentage, mean and standard deviation were given in the descriptive statistics. The compatibility of numerical variables with normal distribution was evaluated with Skewness and Kurtosis, and it was found to have a normal distribution according to Skewness (between .12 and 1.35) and Kurtosis (between -.24 and 1.69) values. In the comparison of the mean total scores of GRAS and subscales according to the independent variants (descriptive characteristics of students and their parents); t-test and Mann Whitney U test were used in independent groups according to the number of samples in two-group variables, while one-way analysis of variance (further Tukey HSD analysis) and Kruskal Wallis analysis (further Mann Whitney U test with Bonferroni correction) were used for the independent groups by sample size in

variables with three or more groups. The relation between GSE Scale scores and GRAS scores was examined by Pearson correlation analysis. Independent variables having an effect on GRAS scores in primary analyzes were evaluated by multiple linear regression (backward method) analysis. The significance level was accepted as  $p < .05$ .

### Ethical Approval.

Ethics committee approval was obtained from the Noninvasive Clinic Ethical Committee of the Medical Faculty at Necmettin Erbakan University (Decision no. 2019/88). Institution approval of the study was obtained from the institution in which the study is conducted and verbal consent was obtained from the students.

### Findings

Among the students participated in the study, those following results were determined: their average age  $20.12 \pm 1.41$ ; 80.3% of them female; almost all of them (96.6%) single; 83.0% of them, with nuclear family; 58.9% of them stay in student's dormitories; half of them (50.2%) live in the Central Anatolia Region. Most of the students stated that they have a balanced income-expense level (%67.0, Table 1).

Table 1

*Descriptive Characteristics of Students (n: 406)*

Socio-demographic characteristics	Min.– Max.	$\bar{X} \pm SS$
<b>Age</b>	17-26	20.12±1.41
	<b>n</b>	<b>%</b>
<b>Gender</b>		
Female	326	80.3
Male	80	19.7
<b>Marital Status</b>		
Single	392	96.6
Married	14	3.4
<b>Class</b>		
1. Class	92	22.7
2. Class	106	26.1
3. Class	99	24.4
4. Class	109	26.8
<b>Family Type</b>		
Nucleus family	337	83.0
Extended family	58	14.3
Fragmented family	11	2.7
<b>Locations of family</b>		
Village	52	12.8
Town	100	24.6
City	254	62.6
<b>Types of accomodation</b>		
With family/relative	96	23.6
In dormitory	239	58.9
In house	71	17.5
<b>Region of settlement</b>		
Central Anatolia Region	204	50.2
Black Sea Region	25	6.2
Mediterranean Region	83	20.4
Aegean Region	18	4.4
Eastern Anatolia Region	18	4.4
Southeastern Anatolia Region	34	8.4



Marmara Region	13	3.2
Abroad Region	11	2.7
<b>Income assessment</b>		
Income less than expense	109	26.8
Income balanced to expense	272	67.0
Income is more than expense	25	6.2

Most of the mothers (67.7%) and half of the fathers (52.7%) of the students participated in the study were literate/primary/secondary school graduate. 10.8% of the mothers and 74.1% of the fathers have a job (Table 2).

Table 2

*Descriptive Characteristics of Students' Parents (n: 406)*

Characteristics of Students' Parents	n	%
<b>Mothers' educational status</b>		
Illiterate	35	8.6
Literate/primary/secondary school	275	67.7
High School and above	96	23.6
<b>Mothers' employment status</b>		
Employed	44	10.8
Unemployed	362	89.2
<b>Fathers' educational status</b>		
Illiterate	8	2.0
Literate/primary/secondary school	214	52.7
High School and above	184	45.3
<b>Fathers' employment status</b>		
Employed	301	74.1
Unemployed	105	25.9

GSE Scale total score  $27.19 \pm 5.53$  (Table 3) and the result of our study revealed that the students participated in the study have a mid-level of self-efficacy. The total score mean from GRAS taken by the study group was found as  $83.26 \pm 30.53$  and as a result of our research, it was determined that the students participating in the study adopted the traditional attitude towards gender roles (Table 3).

Table 3

*Students' Scores Concerning GSE Scale and GRAS (n: 406)*

Scale and subscales	Min.-Max	$\bar{X} \pm SS$
<b>GSE total score</b>	12-40	27.19±5.53
<b>GRAS total score</b>	38-190	83.26±30.53
<b>GRAS subscales</b>	<b>Egalitarian gender roles</b>	8-40 15.08±8.37
	<b>Female gender roles</b>	8-40 21.74±6.49
	<b>Marriage gender roles</b>	8-40 14.06±8.38
	<b>Traditional gender roles</b>	8-40 19.87±7.00
	<b>Male gender roles</b>	6-30 12.51±5.79

When the students' GRAS scores by gender were examined, it was found that the total score mean of GRAS of male students was higher than that of female students; the difference between the groups was found to be

very significant ( $p < .001$ ) in terms of total score, female gender roles, traditional gender roles and male gender roles sub-dimensions; and marriage gender roles was found to be highly significant ( $p < .01$ ) (Table 4).

When the GRAS scores of the students were examined according to grade level, it was determined that there was a significant difference between the total and five sub-dimension scores of the groups ( $p < .001$ , Table 3). In further analysis to determine which groups have a difference, it was determined that the total and all sub-dimension score means of the second-grade students were significantly higher than the other grades ( $p < .05$ ) (Table 4).

When the students' GRAS scores by their family type were examined, the total score, and subscales of female gender roles and male gender roles were found to be highly significant ( $p < .01$ ); besides, it was identified that there was a significant difference in the subscales of egalitarian gender roles, marriage gender roles, and traditional gender roles ( $p < .05$ , Table 4). In the further analysis, it was found that the mean score of students with extended families was significantly higher ( $p < .05$ ) in the egalitarian gender subscale than those with fragmented families; in terms of total score and other four subscales, on the other hand, the mean score of students with nuclear and extended families was found to be significantly higher ( $p < .05$ ) than those with fragmented families (Table 4).

When the students' GRAS scores by the regions they live were examined, no significant difference was found in the total score mean of egalitarian gender role subscale ( $p > .05$ ); very highly significant difference was found in the total scores and the subscales of female gender roles and traditional gender roles ( $p < .001$ ); on the other hand, highly significant difference was found in the subscales of marriage gender roles and male gender roles (Table 4). In the further analysis, these following results were found respectively;

- in terms of the total score and subscales of marriage gender roles and male gender roles; the mean scores of the students living in the regions with a coastline and in abroad was significantly lower than those who live in the Central Anatolia and in the continental climate (Eastern and Southeastern Anatolia) ( $p < .05$ ),

- in terms of female gender roles; the mean scores of the students living in the regions with coastline and in abroad and in the Central Anatolia was significantly lower than those who live in the continental climate (Eastern and Southeastern Anatolia) ( $p < .05$ ),

- in terms of traditional gender roles; the mean scores of the students living in the regions with coastline and in abroad was significantly lower than those who live in the Central Anatolia and in the continental climate (Eastern and Southeastern Anatolia) ( $p < .05$ ); however, the mean scores of the students living in the Central Anatolia was significantly lower than those who live in the continental climate (Eastern and Southeastern Anatolia) ( $p < .05$ ).

Table 4 I

The comparison of GRAS Mean Scores by the Students' Descriptive Characteristics I (n: 406)

Characteristics	n	GRAS Total $\bar{X} \pm SS$	Egalitarian gender roles $\bar{X} \pm SS$	Female gender roles $\bar{X} \pm SS$	Subscales		
					Marriage gender roles $\bar{X} \pm SS$	Traditional gender roles $\bar{X} \pm SS$	Male gender roles $\bar{X} \pm SS$
<b>Gender</b>							
Female	326	79.48±31.06	14.78±8.78	20.63±6.07	13.46±8.59	18.63±6.61	11.98±5.79
Male	80	98.65±22.57	16.31±6.35	26.24±6.24	16.51±7.04	24.90±6.29	14.69±5.31
<i>t/p</i>		<b>5.193 / .000</b>	<b>1.782 / .077</b>	<b>7.357 / .000</b>	<b>2.948 / .003</b>	<b>7.667 / .000</b>	<b>3.811 / .000</b>
<b>Marital Status</b>							
Single	392	83.11±30.84	15.07±8.45	21.68±6.50	14.06±8.49	19.81±7.08	12.50±5.85
Married	14	87.43±19.87	15.36±6.12	23.43±6.28	14.14±4.50	21.57±4.13	12.93±3.89
<i>U/p</i>		<b>2143.5 / .164</b>	<b>2375.5 / .390</b>	<b>2369.0 / .384</b>	<b>2149.0 / .164</b>	<b>2126.5 / .152</b>	<b>2309.5 / .312</b>
<b>Class</b>							
1. Class	92	77.66±19.37	13.93±6.48	21.88±5.80	11.88±4.17	19.11±5.94	10.86±3.77
2. Class	106	106.92±41.34	20.89±11.62	24.81±6.38	20.87±12.72	23.66±8.45	16.69±7.70
3. Class	99	76.02±21.67	13.14±6.18	20.65±6.76	12.06±4.05	18.68±6.04	11.49±4.62
4. Class	109	71.54±18.10	12.17±3.90	19.61±5.82	11.09±3.84	17.90±5.64	10.77±3.66
<i>F/p</i>		<b>37.406 / .000</b>	<b>28.613 / .000</b>	<b>13.965 / .000</b>	<b>41.280 / .000</b>	<b>16.180 / .000</b>	<b>30.718 / .000</b>
difference		<b>(2 &gt; 1, 3, 4)</b>	<b>(2 &gt; 1, 3, 4)</b>	<b>(2 &gt; 1, 3, 4)</b>	<b>(2 &gt; 1, 3, 4)</b>	<b>(2 &gt; 1, 3, 4)</b>	<b>(2 &gt; 1, 3, 4)</b>
<b>Family Type</b>							
Nucleus family <sup>a</sup>	337	82.98±30.42	14.95±8.28	21.74±6.41	14.02±8.42	19.81±6.94	12.46±5.75
Extended family <sup>b</sup>	58	88.93±31.76	16.31±8.71	22.74±6.95	15.12±8.71	21.16±7.38	13.60±6.15
Fragmented family <sup>c</sup>	11	61.73±13.67	12.55±9.23	16.45±4.06	9.73±2.49	14.73±4.63	8.27±1.90
<i>KW/p</i>		<b>10.635 / .005</b>	<b>6.393 / .041</b>	<b>10.386 / .006</b>	<b>8.267 / .016</b>	<b>7.527 / .023</b>	<b>10.655 / .005</b>
difference		<b>(a, b &gt; c)</b>	<b>(b &gt; c)</b>	<b>(a, b &gt; c)</b>	<b>(a, b &gt; c)</b>	<b>(a, b &gt; c)</b>	<b>(a, b &gt; c)</b>

t: t-test in the independent groups, degrees of freedom (df): 404

U: Mann Whitney U test

F: Variance analysis in independent groups, intergroup / intragroup / total df: 3/402/405 (post hoc analysis Tukey HSD) KW: The Kruskal Wallis test, df: 2 (Post hoc analysis: Mann Whitney U test with Bonferroni correction)

Table 4 II

The Comparison of GRAS Mean Scores by the Students' Descriptive Characteristics II (n: 406)

Characteristics	n	GRAS Total $\bar{X} \pm SS$	Egalitarian gender roles $\bar{X} \pm SS$	Female gender roles $\bar{X} \pm SS$	Subscales		
					Marriage gender roles $\bar{X} \pm SS$	Traditional gender roles $\bar{X} \pm SS$	Male gender roles $\bar{X} \pm SS$
<b>Locations of family</b>							
Village	52	84.33±27.81	14.62±6.91	22.08±5.42	14.62±8.37	20.38±6.44	12.63±5.29
Town	100	80.57±31.99	14.87±8.63	21.36±6.91	13.30±8.45	19.40±7.68	11.64±5.59
City	254	84.09±30.52	15.26±8.56	21.81±6.54	14.24±8.38	19.94±6.85	12.83±5.95
F / p		.514 / .599	.169 / .844	.257 / .773	.585 / .558	.379 / .685	1.534 / .217
<b>Types of accomodation</b>							
With famil/relative	96	88.77±31.35	16.25±8.64	22.63±6.08	15.66±8.89	20.97±6.74	13.27±6.21
In dormitory	239	82.23±31.23	15.01±8.55	21.42±6.37	13.80±8.57	19.48±7.22	12.51±5.86
In house	71	79.25±26.06	13.73±7.18	21.59±7.39	12.76±6.67	19.69±6.55	11.48±4.82
F / p		2.327 / .099	1.874 / .155	1.196 / .303	2.727 / .067	1.585 / .206	1.963 / .142
<b>Region of settlement</b>							
Coastline and abroad <sup>a</sup>	150	76.67±27.32	14.00±7.96	20.54±6.46	12.46±7.14	18.25±6.31	11.42±5.17
Central Anatolia Region <sup>b</sup>	204	85.01±31.55	15.42±8.61	21.78±6.27	14.75±8.87	20.13±6.85	12.93±5.99
Continental Climate <sup>c</sup>	52	95.35±31.11	16.87±8.28	25.02±6.42	15.94±9.09	23.50±8.07	14.02±6.24
F / p		8.186 / .000	2.622 / .074	9.581 / .000	4.831 / .008	11.704 / .000	5.061 / .007
difference		a < b, c		a, b < c	a < b, c	a < b < c	a < b, c

F: Variance analysis in independent groups, intergroup/intragroup/ total degrees of freedom: 2/403/405. (post hoc analysis Tukey HSD)

a : Coastline (Mediterranean, Black Sea, Marmara, Aegean) and abroad

c: Continental Climate (Eastern and Southeastern Anatolia)

No significant difference was found between the GRAS scores of the students by their mother's employment status, father's employment status and income level of the family and five subscales (egalitarian gender roles, female gender roles, marriage gender roles, traditional gender roles, and male gender roles) ( $p>.05$ , Table 5).

When the GRAS scores of the students by their mother's educational level is examined, total and five subscale mean scores of the students whose mother is primary school graduate and uneducated were found to be higher than those whose mother is high school and university graduate; the difference between the groups was highly significant in terms of total scores and subscales of egalitarian gender roles, female gender roles, and traditional gender roles ( $p<.01$ ), however, it was found to be significant in terms of subscales of marriage gender roles and male gender roles ( $p<.05$ ) (Table 5).

When the GRAS scores of the students by their father's educational level is examined, there was no significant difference between the groups in terms of total score and the subscales of egalitarian gender roles, marriage gender roles and male gender roles ( $p>.05$ ). However, in terms of the subscales of female gender roles and traditional gender roles, total mean scores of the students whose father is primary school graduate and uneducated were found to be higher than those whose father is high school and university graduate ( $p<.05$ , Table 5).

Table 5

*The comparison of GRAS Mean Scores by Descriptive Characteristics of Students' Parents (n: 406)*

<i>Characteristics</i>	<b>n</b>	<b>GRAS Total</b> $\bar{X} \pm SS$	<b>Egalitarian gender roles</b> $\bar{X} \pm SS$	<b>Female gender roles</b> $\bar{X} \pm SS$	<b>Subscales</b>		
					<b>Marriage gender roles</b> $\bar{X} \pm SS$	<b>Traditional gender roles</b> $\bar{X} \pm SS$	<b>Egalitarian gender roles</b> $\bar{X} \pm SS$
<b>Mothers' educational status</b>							
≤ primary	310	85.99±30.92	15.69±8.61	22.34±6.44	14.58±8.67	20.51±7.11	12.87±5.89
≥ High School	96	74.43±27.56	13.13±7.23	19.79±6.33	12.39±7.18	17.78±6.25	11.34±5.33
<i>t/p</i>		3.282 / .001	2.640 / .009	3.401 / .001	2.483 / .014	3.382 / .001	2.274 / .023
<b>Mothers' employment status</b>							
Employed	44	78.43±30.88	14.73±9.23	20.39±6.17	13.02±7.77	18.64±6.74	11.66±5.95
Unemployed	362	83.84±30.47	15.12±8.27	21.90±6.52	14.19±8.46	20.02±7.03	12.62±5.77
<i>t/p</i>		1.111 / .267	.297 / .767	1.462 / .144	.868 / .386	1.235 / .218	1.035 / .301
<b>Fathers' educational status</b>							
≤ Primary	222	85.74±31.40	15.52±8.58	22.36±6.34	14.52±8.81	20.62±7.31	12.73±5.99
≥ High School	184	80.26±29.24	14.55±8.11	20.98±6.62	13.51±7.83	18.96±6.52	12.26±5.55
<i>t/p</i>		1.808 / .071	1.167 / .244	2.135 / .033	1.212 / .226	2.384 / .018	.813 / .417
<b>Fathers' employment status</b>							
Employed	301	84.35±31.29	15.17±8.50	22.05±6.49	14.42±8.79	19.97±7.10	12.74±6.01
Unemployed	105	80.12±28.13	14.84±8.01	20.83±6.47	13.03±7.04	19.58±6.75	11.85±5.10
<i>t/p</i>		1.222 / .222	.345 / .730	1.667 / .096	1.629 / .105	.486 / .628	1.479 / .140
<b>Income assessment</b>							
Income less than expense	109	84.45±35.18	15.79±9.18	22.06±7.15	14.59±9.39	19.44±8.02	12.58±6.56
Income balanced to expense	272	83.41±29.46	15.12±8.27	21.47±6.25	14.20±8.24	20.06±6.64	12.56±5.63
Income is more than expense	25	76.36±17.23	11.56±4.00	23.20±6.08	10.24±2.52	19.64±6.31	11.72±3.70
<i>KW/p</i>		.442 / .802	4.710 / .095	2.241 / .326	5.608 / .061	1.934 / .380	.539 / .764

t: t test in Independent Groups, df: 404

KW: Kruskal Wallis test, df: 2

There was a weak, negative and significant relationship between the Students' GSE Scale Score and GRAS in terms of the subscale of egalitarian gender roles ( $p < .05$ ). As the Students' GSE Scale Score increases, their scores in egalitarian gender roles decrease. No significant relationship between the students' GSE Scale Scores and total score of GRAS and other four subscales (female gender roles, marriage gender roles, traditional gender roles, and male gender roles) ( $p > .05$ , Table 6).

Table 6

*The Relationship Between GSE Scale and GRAS Scores of Students*

Scale and subscales		GSE score	
		r	p
<b>GRAS total score</b>		-.02	.739
<b>GRAS subscales</b>	<b>Egalitarian gender roles</b>	-.12	<b>.020</b>
	<b>Female gender roles</b>	-.01	.881
	<b>Marriage gender roles</b>	-.01	.803
	<b>Traditional gender roles</b>	.02	.649
	<b>Male gender roles</b>	.08	.112

r: Pearson correlation analysis

In order to evaluate the effect of independent variables determined to have an impact on the GRAS total and five subscale scores of the students in the primary analysis, a multiple regression analysis (backward method) was performed. Among the independent variables included in the regression model, no autocorrelation was found according to correlation analysis and Collinearity statistics (Table 7).

In the multiple regression analysis conducted to evaluate the effect of five independent variables that were found to have an effect on the GRAS total score of the students in the primary analysis; two independent variables, the place of residence and type of family, were excluded from the regression model, respectively, since they did not have sufficient effect ( $p > .05$ ). Three independent variables determined to have an effect on the GRAS total score of the students were ranked from the most important to the least important according to the  $\beta$  coefficient: grade level, sex ( $p < .001$ ) and their mother's educational level ( $p < .01$ ). Three independent variables explain the variance of GRAS total score by 29% (Table 5). Students' GRAS total score of those in the second grade increases 31.51 points compared to the other grades (1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades), the scores of male students increase by 18.84 points compared to female students, and the scores of the students whose mother's educational level is at high school and university level decrease by -9.32 compared to those whose mother is primary school graduate and uneducated.

Table 7

*The Effect of Independent Variables on GRAS Total and Subscale Scores of Students: Multiple Regression Analysis Results (n: 406)*

Independent variants	B	S. Error	$\beta$	t	p	B to 95% Confidence Range	Collinearity statistic		
							Tolerance	VIF	
<b>Total Score</b>									
(Constant)	32.50	6.80		4.782	.000	19.14	45.86		
Class	31.51	2.92	.45	10.799	.000	25.77	37.24	.997	1.003
Gender	18.84	3.22	.25	5.853	.000	12.51	25.16	.999	1.001
Mothers' educational	-9.32	3.02	-.13	3.090	.002	-15.26	-3.39	.996	1.004
R: .54    Adjusted R <sup>2</sup> : .29    F: 55.21    p: .000    Durbin Watson:    Effect size: .41									
<b>Egalitarian gender roles</b>									
(Constant)	13.44	2.45		5.484	.000	8.62	18.25		
Class	7.82	.85	.41	9.192	.000	6.15	9.49	.996	1.004
GSE Scale	-.20	.07	-.13	2.973	.003	-.33	-.07	.998	1.002
Mothers' educational	-2.23	.88	-.11	2.529	.012	-3.95	-.50	.996	1.004
R: .45    Adjusted R <sup>2</sup> : .19    F: 33.44    p: .000    Durbin Watson:    Effect size: .23									
<b>Female gender roles</b>									
(Constant)	4.56	3.68		1.241	.215	-2.67	11.80		
Gender	5.45	.72	.33	7.616	.000	4.05	6.86	.997	1.003
Class	3.94	.65	.27	6.055	.000	2.66	5.21	.993	1.007
Mothers' educational	-2.22	.67	-.15	3.311	.001	-3.54	-.90	.996	1.004
Family Type	4.27	1.76	.11	2.429	.016	.81	7.73	.993	1.007
R: .48    Adjusted R <sup>2</sup> : .22/.22 model 2    F: 29.75    p: .000    Durbin Watson:    Effect size: .28									
<b>Marriage gender roles</b>									
(Constant)	-1.19	1.54		.775	.439	-4.22	1.83		
Class	9.21	.82	.48	11.230	.000	7.60	10.82	1.000	1.000



Gender	3.04	.91	.14	3.356	.001	1.26	4.82	1.000	1.000
R: .50 Adjusted R <sup>2</sup> : .25 /.26 model2 F: 68.75 p: .000 Durbin Watson: Effect size: .33									
<b>Traditional gender roles</b>									
(Constant)	7.47	1.71		4.364	.000	4.10	10.83		
Gender	5.80	.77	.33	7.508	.000	4.28	7.32	.956	1.046
Class	4.80	.69	.30	6.961	.000	3.45	6.16	.983	1.018
Mothers' educational	-2.11	.71	-.13	2.968	.003	-3.51	-.71	.986	1.014
Region of settlement	1.15	.47	.11	2.441	.015	.22	2.07	.931	1.074
R: .51 Adjusted R <sup>2</sup> : .25 /.26 model2 F: 35.38 p: .000 Durbin Watson: Effect size: .33									
<b>Male gender roles</b>									
(Constant)	-2.36	3.27		.722	.471	-8.79	4.07		
Class	5.51	.58	.42	9.537	.000	4.38	6.65	.993	1.007
Gender	2.61	.64	.18	4.094	.000	1.35	3.86	.997	1.003
Family Type	3.18	1.56	.09	2.032	.043	.10	6.25	.993	1.007
Mothers' educational	-1.18	.60	-.09	1.983	.048	-2.36	-1.01	.996	1.004
R: .48 Adjusted R <sup>2</sup> : .23 F: 30.56 p: .000 Durbin Watson: Effect size: .30									

In the multiple regression analysis conducted to evaluate the effect of four independent variables that were found to have an effect on the students' GRAS egalitarian gender roles subscale score in the primary analysis; the variable of family type was excluded from the regression model since it did not have sufficient effect ( $p > .05$ ). Three independent variables determined to have an effect on the students' GRAS egalitarian gender roles subscale score were ranked from the most important to the least important: grade level, general self-efficacy level ( $p < .01$ ) and their mother's educational level ( $p < .05$ ). Three independent variables explain the variance of the students' GRAS egalitarian gender roles subscale score by 19%. GRAS egalitarian gender roles subscale score of the students in the second grade increases 7.82 points compared the other grades (1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades), and the scores of the students whose mother's educational level is at high school and university level decrease by -2.23 compared to those whose mother is primary school graduate and uneducated. One-unit increase in students' GSE Scale score leads to a -.20 points decrease in the egalitarian gender roles subscale score (Table 7).

In the multiple regression analysis conducted to evaluate the effect of six independent variables that were found to have an effect on the students' GRAS female gender roles subscale score in the primary analysis; the variables of father's educational level and the place of resident were excluded from the regression model since they did not have sufficient effect ( $p > .05$ ). Four independent variables determined to have an effect on the students' GRAS female

gender roles subscale score were ranked from the most important to the least important: sex, grade level ( $p < .001$ ), their mother's educational level ( $p < .01$ ), and type of family ( $p < .05$ ). Four independent variables explain the variance of the students' GRAS female gender roles subscale score by 22%. GRAS female gender roles subscale score of the students of the male students increases by 5.45 points compared the female students; the scores of the students in the second grade increase by 3.94 points compared to the other grades (1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades), the score of the students with nuclear and extended families increase by 4.27 compared to those with fragmented families, and the scores of the students whose mother's educational level is at high school and university level decrease by -2.22 compared to those whose mother is primary school graduate and uneducated (Table 7).

In the multiple regression analysis conducted to evaluate the effect of five independent variables that were found to have an effect on the students' GRAS marriage gender roles subscale score in the primary analysis; the variables of family type, mother's educational level and the place of resident were excluded from the regression model since they did not have sufficient effect ( $p > .05$ ). Five independent variables determined to have an effect on the students' GRAS female gender roles subscale score were ranked from the most important to the least important as grade ( $p < .001$ ) and sex ( $p < .01$ ). Two independent variables explain the variance of the students' GRAS marriage gender roles subscale score by 25%.

GRAS marriage gender roles subscale scores of the students in the second grade increase by 9.21 points compared to the other grades (1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades), the scores of the male students increase by 3.04 points compared to the female students (Table 7).

In the multiple regression analysis conducted to evaluate the effect of six independent variables that were found to have an effect on the students' GRAS traditional gender roles subscale score in the primary analysis; the variables of father's educational level and family type were excluded from the regression model since they did not have sufficient effect ( $p > .05$ ). Four independent variables determined to have an effect on the students' GRAS traditional gender roles subscale score were ranked from the most important to the least important: sex, grade level ( $p < .001$ ), their mother's educational level ( $p < .01$ ), and the place of resident ( $p < .05$ ). Four independent variables explain the variance of the students' GRAS traditional gender roles subscale score by 25%.

GRAS traditional gender roles subscale score of the male students increases by 5.80 points compared the female students; the scores of the students in the second grade increase by 4.80 points compared to the other grades (1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades), the scores of the students whose mother's educational level is at high school and university level decrease by -2.11 compared to those whose mother is primary school graduate and uneducated. The subscale score of traditional gender roles of the students living in the coastline regions/abroad increase by 1.15 (Table 7).

In the multiple regression analysis conducted to evaluate the effect of five independent variables that were found to have an effect on the students' GRAS male gender roles subscale score in the primary analysis; the variable of the place of resident was excluded from the regression model since they did not have sufficient effect ( $p > .05$ ). Four independent variables determined to have an effect on the students' GRAS traditional gender roles subscale score were ranked from the most important to the least important according to the  $\beta$  coefficient: grade level, sex ( $p < .001$ ), family type and their mother's educational level ( $p < .05$ ). Four independent variables explain the variance of the

students' GRAS male gender roles subscale score by 23% (Table 7). GRAS male gender roles subscale the scores of the students in the second grade increase by 5.51 points compared to the other grades (1<sup>st</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades); the scores of the male students increases by 2.61 points compared the female students; the scores of those with a nuclear and extended family increase by 3.18 compared to those with fragmented family; and the scores of the students whose mother's educational level is at high school and university level decrease by -1.18 compared to those whose mother is primary school graduate and uneducated.

### Discussion

Determining the views of university students on gender roles is very important to shape the views of the next generation on gender roles in an egalitarian way. This study has determined the relationship between general self-efficacy and gender role attitudes of students and other variables affecting their attitude to gender roles.

In the study, self-efficacy of the nursing students was found to be at mid-level (Table 1). Similar to the study findings, [Kassem, Elsayed, and Elsayed \(2015\)](#) also found the general self-efficacy of the students to be at mid-level. However, unlike the study findings, in their study, [Bilgiç, Temel, and Çelikkalp \(2017\)](#) found that the general self-efficacy of the students was above the mid-level. According to these results, it is thought that self-efficacy varies according to sociocultural differences and upbringing method of the family and there are many parameters affecting self-efficacy.

Our research results show that the students participating in the research adopted the traditional attitude towards gender roles. Similar to the study findings, [Seven \(2019\)](#) stated that students adopted traditional attitudes towards gender roles. Contrary to the findings of the study, there are also other studies suggesting that the students adopted egalitarian attitudes towards gender roles attitude ([Can et al., 2018](#); [Karasu, Göllüce, Güvenç, & Çelik, 2017](#); [Köken Durgun & Cambaz Ulaş, 2019](#); [Türkmenoğlu Zöhre & Vefikuluçay, 2018](#)). Gender roles are the roles that society attributes to individuals and expects them to show these roles. People adopt the attitude towards gender roles of the society in which they grow up. These differences in the studies are thought to be due to sample differences and it is thought that these studies should be conducted in the different societies with the same culture and thus a comparison should be done. Factors affecting students' gender roles attitude were found as sex, grade and mother's educational level.

The following results were reached in our research: sex is related to gender roles attitude; female and male students have different attitudes towards gender roles; the egalitarian view of gender roles of male students is greater than that of female students. Similar to the study findings, in the studies carried out by [Karasu, Göllüce, Güvenç and Çelik \(2017\)](#) and [Türkmenoğlu et al. \(2018\)](#), it was determined that male students had more egalitarian attitudes than female students. Contrary to the findings of the study, in some other studies, it was stated that the egalitarian view of gender roles of female students is higher than male students ([Can et al., 2018](#); [Güzel, 2016](#); [Özpulat & Varış, 2018](#)). In his study, [Alptekin \(2014\)](#) examined the sexism tendencies of students and found that male students got higher scores than female students in both total scale score and hostile sexism subscale score, while female students got higher scores than male students in terms of protective sexism subscale score. In another study, it was stated that preservice teachers adopted traditional role expressions, while both sexes had affirmative expressions about their

gender, they used negative expressions towards the opposite sex (Aslan, 2015). In our research, determining that male students have an egalitarian attitude towards gender roles is a pleasing finding that attitudes towards gender roles differ.

In the study, it was found that the grade level was associated with gender roles attitudes and the students in the second grade had more egalitarian attitudes than the other grade students ( $p < .05$ ). Similarly, in their study, Özpulat and Özvarış (2018) found that Gender Roles Attitude Scale scores of the second grade students were higher than the other grades. Unlike the study findings, in their study, Dinç and Çalışkan (2016) determined that the grade level had no effect on the attitudes towards gender roles. In some studies, it was found that the mean score of the 4th grade students concerning the gender attitude scores was higher (Köken Durgun & Cambaz Ulaş, 2019; Öngen & Aytaç, 2019).

In the study, it was found that the Gender Roles Attitude of the students whose mother is primary school graduate and uneducated was higher than those whose mother is high school and university graduate. Similarly, in their study, Özpulat and Özvarış (2018) found that the Gender Perception Scale mean scores of the students whose mother is secondary school graduate was  $103.35 \pm 15.24$ ; gender perceptions of students vary according to mothers' education level ( $< 0.05$ ); and the difference was caused by illiterate mothers ( $> 0.05$ ). Çetinkaya (2013) stated that the students whose mother is primary and high school graduate have more egalitarian attitudes regarding gender roles. Unlike the study findings, in some studies, it was found that the educational level of the students' mothers did not affect attitudes towards gender roles (Aydın et al., 2016; Dinç & Çalışkan, 2016). This situation is thought to be due to the fact that women with primary education and uneducated women experience gender related problems more; thus, women are considered as an example to their children in the family by adopting a more egalitarian attitude towards gender roles.

In the study, no correlation was found between the GSE Scale scores of the students and the total and four other subscales (female gender roles, marriage gender roles, traditional gender roles, and male gender roles) of the gender roles attitude scale ( $p > .05$ , Table 4). Similarly, in the study of Özpulat and Varış (2018), no significant relationship was found between students' self-efficacy and gender perceptions ( $r = .035$ ,  $p = .503$ ). Unlike this result, in the study of Özpulat (2016), it was revealed that there was a relationship between students' self-efficacy levels and their gender perceptions, and that the students with higher self-efficacy level had higher gender perceptions.

As a result of the study, students' general self-efficacy was found to be at midlevel, while they adopt the traditional attitude related to gender roles; besides, factors affecting students' gender roles attitude were found as sex, grade, and mother's educational status; furthermore, no relationship was found between the general self-efficacy and gender roles Attitude. In line with these results, it is possible to suggest that;

Further studies on gender and self-efficacy should be conducted in different sample groups,

The issue should be discussed also by students at student congresses to be held about gender,

Peer education should be provided to create an egalitarian gender perception and university students should transfer this information to their friends studying in different departments,

Based on the fact that gender roles are experienced in the family, to determine the views and attitudes related to gender roles, studies involving parents should be carried out and trainings should be organized,

In order to raise awareness of gender roles, egalitarian gender roles courses should be taught in all departments of universities.

## References

- Abdel Khalek, A.M., & Lester, D. (2017). The association between religiosity, generalized self-efficacy, mental health, and happiness in Arab college students. *Personality and Individual Differences*, doi:[10.1016/j.paid.2016.12.010](https://doi.org/10.1016/j.paid.2016.12.010)
- Alptekin, D. (2014). Inquiry of gender discrimination in contrast emotions: a study on perception of gender of youth university. *Selcuk University Journal of Institute of Social Sciences*, 32, 203-211.
- Altıparmak, İ. B. (2018). A sociological research on gender: resources and suggestions for struggle area. *Turkish Studies Social Sciences*, 13, 179-194.
- Aslan, G. (2015). A metaphoric analysis regarding gender perceptions of preservice teachers. *Education and Science*, 40, 363-84.
- Aypay, A. (2010). The adaptation study of general self-efficacy (GSE) scale to Turkish. *Inonu University Journal of The Faculty of Education*, 11(2), 113-131.
- Bandura, A. (1977). Self-efficacy toward a unifying theory of behavioral change. *Psychological Review*, 84 (2), 191-215. doi:[10.1037/0033-295X.84.2.191](https://doi.org/10.1037/0033-295X.84.2.191)
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38, 9-44.
- Bilgiç, Ş., Temel, M., & Çelikkalp, Ü. (2017). Assesment of learned resourcefulness, self-efficacy and hope levels of nursing students: a case study Tekirdağ. *Journal of health and nursing Management*, 3(4), 117-126. doi:[10.5222/SHYD.2017.117](https://doi.org/10.5222/SHYD.2017.117)
- Can, R., Erenoğlu, R., & Tambağ, H. (2018). Views of nursing students on gender equality. *Journal of the Human and Social Science Researches*, 7(4), 3039-3058.
- Cornell, R.W. (2016). *Toplumsal cinsiyet ve iktidar* [Gender and Power] (C. Soydemir, Trans.). İstanbul, Turkey: Ayrıntı Yayınları.
- Dinç, A., & Çalışkan, C. (2016). The perspectives of university students on gender roles. *Journal of Human Sciences*, 13(3), 3671-3683. doi:[10.14687/jhs.v13i3.3801](https://doi.org/10.14687/jhs.v13i3.3801)
- Dökmen, Z. Y (2012). *Toplumsal cinsiyet: sosyal psikolojik açıklamalar* [Gender: Social psychological explanations]. İstanbul, Turkey: Remzi Kitabevi.
- Güzel, A. (2016). Gender roles attitudes of university students and related factors. *Gümüşhane University Journal of Health Sciences*, 5(4), 1222-1232.
- Karagöz, Y (2014). *SPSS 21.1 uygulamalı biyoistatistik* [SPSS 21.1 applied biostatistics]. Ankara: Nobel Yayınları.
- Karasu, F., Göllüce, A., Güvenç, E., & Çelik, S. (2017). The attitudes of the university students' regarding the gender roles. *SDÜ Journal of Institute of Health Sciences*, 8(1), 21-27. doi: [10.22312/sdusbed.303098](https://doi.org/10.22312/sdusbed.303098)
- Kassem, A.H., Elsayed, R.S., & Elsayed, W.A. (2015). Bullying behaviors and self efficacy among nursing students at clinical settings: Comparative study. *Journal of Education and Practice*, 6(35), 25-36.
- Köken Durgun, S., & Cambaz Ulaş, S. (2019). Determination of attitudes of midwifery/nursing students towards social gender roles. *Medical Sciences (NWSAMS)*, 14(2), 93-103.

- Orhan, B., & Yücel, Ö.R. (2017). Gender perspective to health services in Turkey, *Marmara University Journal of Women and Gender Studies*, 1, 53-59.
- Öngen, B., & Aytaç, S. (2013). Attitudes of university students regarding to gender roles and relationship with life values. *Journal of Economy Culture and Society*, 48(2), 1-18.
- Özpulat, F., & Bahar Özvarış, Ş. (2018). The determination of the self-efficacy levels and gender perception among the students of the Akşehir school of health. *Sted*, 28(2), 98-107. doi: [10.17942/sted.43101](https://doi.org/10.17942/sted.43101)
- Özpulat, F. (2016). The relationship between self-efficacy level and gender perception of university students: Beyşehir example. *International Journal of Human Sciences*, 13(1), 1222-1232. doi:[10.14687/ijhs.v13i1.3570](https://doi.org/10.14687/ijhs.v13i1.3570)
- Seven, N. (2019). The attitudes of university students on social gender roles. *Pesa International Journal of Social Studies*, 5(2),134-149. doi:[10.25272/j.2149-8385.2019.5.2.08](https://doi.org/10.25272/j.2149-8385.2019.5.2.08)
- Türkmenoğlu Zöhre, D.M., & Vefikuluçay, Y. (2018). Attitudes of determine first and final class of nursing Students' regarding to gender roles. *The Journal of Social Science*, 5(20), 123-136.
- Zeyneloğlu, S., Terzioğlu, F. (2011). Development and psychometric properties gender roles attitude scale. *H. U. Journal of Education*, 40, 409-420.

Received: November 23, 2019

Accepted: March 23, 2020

<http://dergipark.org.tr/rep>

e-ISSN: 2602-3733

Copyright © 2020

June 2020 • 4(1) • 20-40

*Research Article*

## Do Primary Schools Exist Only for Academic Achievement? The School Characteristics that Affect Parents' Private Primary School Preferences for Their Children

Kamil Arif Kırkıcı<sup>1</sup>

*İstanbul Sabahattin Zaim University*

Ahmet Pulat<sup>2</sup>

*Private Bilgiçağı Schools*

### Abstract

In the research process, it was aimed to determine the factors affecting the private school preferences of primary school parents. The population of the study is the parents of students studying in private schools in the Anatolian side of Istanbul in the 2017-2018 academic year. The research group consisted of 205 volunteer parents whose children were students in different private schools in Üsküdar, Ümraniye and Kadıköy districts of the Asian side of Istanbul. A personal information form and a 41-item questionnaire were applied to the participants. As a data collection tool, "Private School Preference Criteria" questionnaire was formed by taking expert opinion. According to the findings obtained from the analysis of the data collected in the research, the factors affecting the reasons for parents to prefer private schools are listed in order of priority: the characteristics of management and academic staff, physical conditions of the school, economic resources, communication processes, artistic, sportive, social and cultural activities and the last one educational activities. According to the preference of the parents varies according to being a mother or father, three items of the physical conditions; two items in teaching activities and one item in artistic, cultural, sportive, social and cultural activities dimensions were determined. No item differentiated in the other two dimensions.

### Key Words

Private school • Primary school • Parents' primary school preferences • Academic achievement

\* This research is based on the second author's master's thesis.

<sup>1</sup> **Correspondance to:** Kamil Arif Kırkıcı (PhD), Faculty of Education, İstanbul Sabahattin Zaim University, İstanbul, Turkey. E-mail: [kamil.kirkic@izu.edu.tr](mailto:kamil.kirkic@izu.edu.tr) **ORCID:** 0000-0002- 8902-437X

<sup>2</sup>.Teacher, Private Bilgiçağı Schools, İstanbul, Turkey. E-mail: [ahmetmirza.pulat@gmail.com](mailto:ahmetmirza.pulat@gmail.com) **ORCID:** 0000-0001-5986-4573

**Citation:** Kırkıcı, K. A., & Pulat, A. (2020). Do primary schools exist only for academic achievement? The school characteristics that affect parents' private primary school preferences for their children. *Research on Education and Psychology (REP)*, 4(1), 20-40.



School is considered the most important institution in a society as it is the educational institutions that educate the generations of the future. Schools may be official or private institutions. Official schools are institutions where student selection cannot be made and where students attend as compulsory (Yılmaz, 2005). Official schools continue their activities as state-supported institutions in many countries (Candaş, Akkan, Günseli, & Deniz, 2011). As for private schools, they are institutions where students attend according to parents' preferences (Regulation on Private Education Institutions, 2012). In different countries like U.S. where parents prefer private schools for different reasons like smaller class size, relatively higher achievement levels of private schools or higher SES students (Goldhaber, 1996). Whereas in Malaysia, parents prefer private schools in terms of their syllabus, the environment and physical conditions of schools and as the third factor for the performances of schools (Yaacob, Osman, & Bachok, 2014). In this research conducted on why private schools are preferred, it is aimed to explain the reasons for preferring private primary schools and which characteristics of parents' preferences vary according to some characteristics of the parents?

Due to the expansion of private schools and the rise in demand for private schools, such a study was deemed necessary to be prepared. The percentage of number of private schools in the total number of schools and the percentage of students enrolled in private schools in the total number of enrolled students were 17.8% and 8.3% respectively, in 2017-2018 academic year. However, there was an important increase in both, the percentage of private schools and the percentage of students enrolled in private schools, in 2018-2019 academic year. The percentage of number of private schools in the total number of schools and the percentage of students enrolled in private schools in the total number of enrolled students were 19.2% and 8.7% respectively, in 2018-2019 (National Educational Statistics, 2019). The increase in the importance of private schools' place in today's education system is one of the main factors in the preparation of a study in this way. Private schools that respond to the requirements of the current age seem to be an important research subject because of this nature.

The main purpose of the research is to identify factors affecting the private school preferences of private primary school parents. In line with the purpose of the research, answers to the following problems were sought.

- What characteristics of schools do parents prioritize when choosing primary schools for their children?
- Are the school characteristics that parents prioritize as mothers or fathers different from each other when choosing schools for their children?
- What are the main reasons for parents to take their children from their school to another school?

## **Method**

### **Research Model**

The research was prepared according to the survey model. The survey models are research approaches that aim to describe a past or present situation, as it exists (Karasar, 2005). The research was conducted to determine the reasons for primary school parents' private school preferences and to identify the determining criteria in the preference process.

### **Study Group**

The sample of the study consisted of 205 parents of private schools in Üsküdar, Ümraniye and Kadıköy districts of the Anatolian side of Istanbul, selected by convenience sampling method. The researcher sent the

questionnaire to the parents of private schools who would like to answer this study. In this type of sampling, the researcher uses very little authority to select the sample and the universe is represented on the basis of proximity. This non-probability sampling method is used when there are time and cost constraints in gathering feedback (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2016).

Of the primary school parents who participated in the study, 67.3% were mothers and 32.7% were fathers. Looking at the age distribution of parents, the largest age group was 62.0% of 31-40 year olds and the smallest group was 3.9% of those aged 51 and above. Of the parents, 2.4% graduated from primary school and 4.4% from secondary school, while the largest educational group was college and university graduates with 56.6%.

Table 1

*Frequency and Percentage Distribution of Parents by the gender of the parents*

<i>Variable</i>	<i>Group</i>	<i>f</i>	<i>%</i>
<i>Kinship degree of the person filling out the questionnaire</i>	<i>Mother</i>	138	67.3
	<i>Father</i>	67	32.7

Of the primary school parents surveyed, 67.3% were mothers and 32.7% were fathers.

Table 2

*Frequency and Percentage Distribution of Parents by Age*

<i>Variable</i>	<i>Group</i>	<i>f</i>	<i>%</i>
<i>Age</i>	<i>Age 21-30</i>	18	8.8
	<i>Age 31-40</i>	127	62.0
	<i>Age 41-50</i>	52	25.4
	<i>51 and older</i>	8	3.9

When it is examined the age distribution of parents, the largest age group is 62.0% of 31-40 year olds and the smallest group is 3.9% of those aged 51 and above.

Table 3

*Frequency and Percentage Distribution of Parents by Educational Level*

<i>Variable</i>	<i>Group</i>	<i>f</i>	<i>%</i>
<i>Parents' education level</i>	<i>Primary School graduate</i>	5	2.4
	<i>Secondary School graduate</i>	9	4.4
	<i>High School graduate</i>	37	18.0
	<i>College / University graduate</i>	11	56.6
	<i>Postgraduate Degree</i>	38	18.5

Of the parents, 2.4% graduated from primary school and 4.4% from secondary school, while the largest educational group was college and university graduates with 56.6%.

### Data Collection Tools

In the study, as a data collection tool, the questionnaire "Private School Preference Criteria" was created by taking expert opinion. The questionnaire consists of two parts: parent personal recognition questions and private school preference criteria. The details of the questionnaire used to collect the data in the study are as follows.

**Parent Personal Recognition Section.** In the questions created to describe the parents, three items were used: the parent's degree of kinship to the child (mother or father), the age of the parent, the educational level of the parent, the average monthly income of the family.

**Section of Private School Preference Criteria.** This section consists of the subsections of private schools preference criteria: physical conditions; educational activities; artistic, sportive, social and cultural activities; the characteristics of management and academic staff, communication processes, and economic resources. These sections contain criteria associated with the title. The section contains a total of 41 items prepared using five-point Likert scale. In order to investigate the factors affecting the private school preferences of primary school parents, a questionnaire consisting of six sections and a total of 41 items developed by the researcher was applied using literature review and expert opinion. The questionnaire was designed according to a five-point Likert scale with the options between 1 = 'I never take into account' and 5 = 'I definitely take into account' to be evaluated by the parents involved in the study. The sections of the questionnaire and the number of questions are as follows:

Physical Conditions of the School: 11 items

Educational Activities: five items

Artistic, Sportive, Social and Cultural Activities: six items

Characteristics of Management and Academic Staff: eight items

Communication Processes: seven items

Economic Resources: four items

Based on the assumption that the intervals included in the evaluation of the questionnaire items (1 = 'I never take into account' and 5 = 'I definitely take into account') are equal  $[(5-1)/5=0.80]$ . The following options, score ranges and levels were taken into account in the calculation and evaluation of the scores of the parents involved in the questionnaire on the factors (the questionnaire items) affecting their private schools preferences. The average score obtained indicates the parent's level of attention to the situation mentioned in that statement/item.

Option	Score Range	Level
I never take into account	1.00-1.80	Not important at all / very low
I do not take into account	1.81-2.60	Slightly important / low
I am undecided	2.61-3.40	Neither important nor unimportant (moderate)
I take into account	3.41-4.20	Important / high
I definitely take into account	4.21-5.00	Very important / very high

### Data Analysis

All the data collected from the parents involved in the questionnaire by Personal Information Form and Factors Affecting Primary School Parents' Private School Preferences Questionnaire were subjected to statistical analysis program. Before the data collected from the parents for the research were transferred to statistical analysis, it was checked whether these data were within the limits set in the questionnaire, and whether they contained errors and serious deficiencies. After that, it was determined that the data groups showed normality distribution by the Kolmogorov-Smirnov (K-S) test before the selection of statistical techniques to be applied depending on the determined objectives of the research. In order to summarize the demographic/personal characteristics of the parents, the frequency (*f*) and percentage (%) distributions of their variables were calculated.

In order to investigate the factors influencing the parents' preferences for private schools, their average scores ( $\bar{X}$ ) given to the questionnaire items and standard deviations (*sd*) were calculated. The unrelated (independent) samples t test was applied to examine whether parents' views on factors affecting their private school preferences differed according the gender of the parents.

### Findings

In this section, firstly, the levels of factors affecting the primary school parents' private school preferences were examined in general; then, it was looked at whether these criteria showed significant differentiation for the parents according to being a mother or father.

When the reasons for primary school parents' preferences for private schools were examined for the dimension of management and academic staff, the sub dimension with the highest value was that the school administrators communicated well with the parents. The lowest rated item by parents was the political opinion reflected by the school. Accordingly, in terms of management and academic staff, the parents involved in the study take into account the political opinion reflected by the school less than all other factors.

Table 4

*Descriptive Statistics of Parents' Average Scores on Management and Academic Staff Characteristics*

<i>Item</i>	$\bar{X}$	<i>sd</i>
<i>01. School administrators communicating well with parents</i>	4.72	0.50
<i>02. Experienced teachers working at the school</i>	4.56	0.71
<i>03. Political opinion reflected by the school</i>	4.15	1.00
<i>04. Religious opinion reflected by the school</i>	4.36	0.96
<i>05. The school's staff of teachers not changing frequently</i>	4.68	0.52
<i>06. Having full-time medical staff at the school</i>	4.44	0.70
<i>07. Having many young and dynamic teachers</i>	4.23	0.84
<i>08. Continuous lack of permanent school staff of teachers</i>	4.42	0.85
<i>Management and Academic Staff Characteristics</i>	4.45	0.46

When the descriptive statistics of parents based on the dimension of the physical conditions of the school are examined, the levels of the questionnaire for the factors affecting parents' private school preferences regarding

the dimension of the physical conditions of the school are generally high. The criterion that the parents who participated in the study put most importance among the physical conditions of the school is the importance that the school attaches to hygiene and cleanliness. The least important criterion for parents is that the school building is new.

Table 5

*Descriptive Statistics of Parents' Average Scores for the Dimension of the Physical Conditions of the School*

<i>Item</i>	$\bar{X}$	<i>sd</i>
08. <i>The importance the school attaches to cleanliness and hygiene</i>	4.76	0.54
07. <i>Having a quality security service at the school</i>	4.66	0.59
09. <i>Healthy and delicious meals served in school dining hall</i>	4.65	0.65
05. <i>Having the appropriate equipment at the school in line with the technological developments</i>	4.54	0.63
04. <i>The importance the school attaches to technological developments</i>	4.52	0.68
03. <i>The quality of the technical infrastructure (electricity, heating etc.) at the school</i>	4.45	0.65
06. <i>Having social facilities at the school such as laboratory, library, gymnasium, pool</i>	4.45	0.74
10. <i>The quality of transportation services of the school</i>	4.32	0.90
02. <i>The physical competence and attraction of classes</i>	4.30	0.78
01. <i>District/neighborhoods location characteristics of the school</i>	4.08	0.96
11. <i>Having a new school building</i>	3.76	1.15
<i>Physical conditions of the school</i>	<i>4,41</i>	<i>0,53</i>

When the descriptive statistics of the parents regarding the dimension of economic resources were examined, the parents stated that they definitely took into account the dimension of economic resources. When the criteria for the dimension of economic resources were examined, the highest criterion was that school prices were in line with the family budget and the lowest score was that social activities performed during the school year were free.

Table 6

*Descriptive Statistics of Parents' Average Scores for the Dimension of Economic Resources*

<i>Item</i>	$\bar{X}$	<i>sd</i>
01. <i>The school fee in line with the family budget</i>	4.49	0.63
02. <i>Fairness of the school's scholarship policy</i>	4.47	0.78
03. <i>Social activities free of charge during the school period</i>	4.04	1.05
04. <i>Lack of high costs of books and stationery</i>	4.21	0.98
<i>Economic resources</i>	<i>4.30</i>	<i>0.69</i>

When the descriptive statistics of parents regarding the communication dimension were examined, the communication process that parents placed most importance on among the communication processes was the quality of teacher-parent communication. In terms of communication processes, parents who participated in the study take into account the ads given by the school less than all other factors.

Table 7

*Descriptive Statistics of Parents' Average Scores for the Dimension of Communication Processes*

<i>Item</i>	$\bar{X}$	<i>sd</i>
<i>01. Comments made by other parents at the school</i>	3.80	0.97
<i>02. Reference of people</i>	4.09	0.81
<i>03. Ads given by the school</i>	3.05	1.15
<i>04. Teachers open to communication</i>	4.67	0.49
<i>05. Quality of teacher-parent communication</i>	4.75	0.48
<i>06. Teachers taking into account the wishes and demands of parents</i>	4.63	0.55
<i>07. Provision of parent participation in activities carried out during the academic year</i>	4.46	0.67
<i>Communication processes</i>	4.21	0.45

When the descriptive statistics of parents regarding the artistic, sportive, social and cultural dimension were examined, the most considered criterion for the parents involved in the study in terms of the activities they cared about most was sports activities carried out at the school. What the parents who participated in the study took into account least among artistic, sportive, social and cultural activities were the school's international memberships and the artistic activities carried out at the school.

Table 8

*Descriptive Statistics of Parents' Average Scores for Artistic, Sportive, Social and Cultural Activities Dimension*

<i>Item</i>	$\bar{X}$	<i>sd</i>
<i>01. Guidance work conducted within the school</i>	4.48	0.68
<i>02. The school's international memberships</i>	3.76	1.06
<i>03. Artistic activities carried out within the school</i>	4.12	0.84
<i>04. Sports activities carried out within the school</i>	4.24	0.84
<i>05. School participation in social responsibility projects</i>	4.29	0.77
<i>06. Additional study time and club activities provided by the school to students</i>	4.38	0.79
<i>Artistic, sportive, social and cultural activities</i>	4.21	0.64

When the descriptive statistics of the parents' average scores for the dimension of educational activities were examined, the criteria reaching the highest scores were common exams in high numbers and high success at English. When we look at the scores given to the items in this dimension, the lowest score was school uniforms of high quality and niceness.

Table 9

*Descriptive Statistics of Parents' Average Scores for the Dimension of Educational Activities*

<i>Item</i>	$\bar{X}$	<i>sd</i>
<i>03. Foreign language education success of the school</i>	4.53	0.69
<i>02. TEOG achievement of the school</i>	4.21	0.93
<i>05. Amount of homework given daily</i>	3.80	1.10
<i>01. Old-dated establishment of the school</i>	3.49	1.12
<i>04. School uniforms of high quality and niceness</i>	3.29	1.22
<i>Educational activities</i>	3.87	0.75

Associated with the primary school period, descriptions of the subdimensions that affect private school preferences are mentioned above. If a comparison is made within subdimensions, the correct order from the most effective subdimension to the least effective one is as follows: management and academic staff characteristics; physical conditions of schools; economic resources; artistic, sportive, social and cultural activities; communication processes; and educational activities.

Table 10

*The Result of t-Test Analysis Showing the Differentiation of Parents' Views on Physical Conditions of the School According to Being a Mother or Father*

<i>Item (Physical Conditions of the School)</i>	<i>Parent</i>	<i>Descriptive Sta.</i>			<i>t-Test</i>		
		<i>n</i>	$\bar{X}$	<i>sd</i>	<i>t</i>	<i>df</i>	<i>p</i>
<i>01. District/neighborhoods location characteristics of the school</i>	<i>Mother</i>	138	4.07	1.00	0.22	203	0.824
	<i>Father</i>	67	4.10	0.89			
<i>02. The physical competence and attraction of classes</i>	<i>Mother</i>	138	4.28	0.84	0.72	203	0.475
	<i>Father</i>	67	4.36	0.64			
<i>03. School uniforms of high quality and niceness</i>	<i>Mother</i>	138	3.25	1.18	-0.78	203	0.437
	<i>Father</i>	67	3.39	1.31			
<i>04. The quality of the technical infrastructure (electricity, heating etc.) at the school</i>	<i>Mother</i>	138	4.46	0.65	0.32	203	0.748
	<i>Father</i>	67	4.43	0.63			
<i>05. The importance the school attaches to technological developments</i>	<i>Mother</i>	138	4.52	0.68	0.14	203	0.889
	<i>Father</i>	67	4.51	0.70			
<i>06. Having the appropriate equipment at the school in line with the technological developments</i>	<i>Mother</i>	138	4.57	0.63	0.93	203	0.352
	<i>Father</i>	67	4.48	0.64			
<i>07. Having social facilities at the school such as laboratory, library, gymnasium, pool</i>	<i>Mother</i>	138	4.43	0.81	0.52	203	0.603
	<i>Father</i>	67	4.49	0.59			
<i>08. Having a quality security service at the school</i>	<i>Mother</i>	138	4.77	0.58	2.13	203	0.044*
	<i>Father</i>	67	4.52	0.61			
<i>09. The importance the school attaches to</i>	<i>Mother</i>	138	4.82	0.49	2.23	203	0.027*

	<i>Father</i>	67	4.64	0.62			
10. Healthy and delicious meals served in school dining hall	<i>Mother</i>	138	4.74	0.57	2.05	203	0.047*
	<i>Father</i>	67	4.49	0.79			
11. The quality of transportation services of the school	<i>Mother</i>	138	4.36	0.85	0.86	203	0.389
	<i>Father</i>	67	4.24	1.00			
12. Having a new school building	<i>Mother</i>	138	3.72	1.15	0.69	203	0.489
	<i>Father</i>	67	3.84	1.15			

\* $p < .05$

Whether the parents' statements / items regarding physical conditions differ according to being a mother or father for those who participated in the questionnaire of the factors affecting parents' private school preferences was examined by independent samples t-Test and it was seen that statistically only three items (factors) in this dimension were evaluated significantly different (Items 7, 8 and 9). Accordingly;

It was found that parents' views on the school having a quality security service (Item 8) differed according to being a mother or father, and this difference was in favour of mothers [ $t_{(203)}=2.13$ ;  $p < .05$ ]. The mothers ( $\bar{X} = 4.77$ ), who participated in the study, took into account / put more emphasis on the school having a quality security service than the fathers ( $\bar{X} = 4.52$ ). It was found that the consideration levels of parents taking into account the importance the school attaches to cleanliness and hygiene (Item 9) also differed according to being a mother or father, and this difference was again in favor of mothers [ $t_{(203)}=2.23$ ;  $p < .05$ ]. The mothers ( $\bar{X} = 4.82$ ), who participated in the study cared more about the importance the school attaches to cleanliness and hygiene than the fathers who participated in the study ( $\bar{X} = 4.64$ ).

Finally, it was also found that parents' views on the school serving healthy and delicious meals in the school dining hall (Item 10) differed according to being a mother or father, and this difference was found one more time in favor of mothers [ $t_{(203)}=2.05$ ;  $p < .05$ ]. The mothers who participated in the study ( $\bar{X} = 4.74$ ), gave more importance to / took more account of the school serving healthy and delicious meals in the school dining hall than fathers did ( $\bar{X} = 4.49$ ).

When it comes to the parents' other statements / items regarding other physical conditions for those who participated in the questionnaire of the factors affecting parents' private school preferences, there is no significant difference between mothers or fathers' views (their views are similar) ( $p > .05$ ).

Table 11

*The Result of t-Test Analysis Showing the Differentiation of Parents' Views on Educational Activities According to Being a Mother or Father*

Item (Educational Activities)	Parent	Descriptive Sta.			t-Test		
		n	$\bar{X}$	sd	t	df	p
01. Old-dated establishment of the school	<i>Mother</i>	138	3.61	1.04	2.14	203	0.033*
	<i>Father</i>	67	3.25	1.26			
02. TEOG achievement of the school	<i>Mother</i>	138	4.31	0.84	2.16	203	0.032*



	<i>Father</i>	67	4.01	1.08			
03. Foreign language education success of the school	<i>Mother</i>	138	4.58	0.63	1.43	203	0.153
	<i>Father</i>	67	4.43	0.80			
04. Amount of homework given daily	<i>Mother</i>	138	3.76	1.07	-0.64	203	0.522
	<i>Father</i>	67	3.87	1.15			
05. Guidance work conducted within the school	<i>Mother</i>	138	4.48	0.70	0.14	203	0.888
	<i>Father</i>	67	4.49	0.64			

\* $p < .05$

Only two of the items regarding educational activities for those who participated in the questionnaire of the factors affecting parents' private school preferences differed depending on whether they are mothers or fathers (Items 1 and 2). Accordingly; it was found that the parents' views on the old establishment date of the school (Item 1) differed and this difference was in favor of the mothers [ $t_{(203)}=2.14$ ;  $p < .05$ ]. The mothers ( $\bar{X} = 3.61$ ) who participated in the study put a greater emphasis on / took more account of the fact that the school's establishment date is old than fathers ( $\bar{X} = 3.25$ ).

It was found that the parents' views on the school's TEOG achievement (Item 2) differed according to being a mother or father, and this difference was again in favour of mothers [ $t_{(203)}=2.16$ ;  $p < .05$ ]. The mothers ( $\bar{X} = 4.31$ ), who participated in the study, placed more importance on / took into consideration the school's TEOG achievement than fathers ( $\bar{X} = 4.01$ ).

As for the parents' other statements / items regarding educational activities for those who participated in the questionnaire of the factors affecting parents' private school preferences, there is no significant difference between mothers or fathers' views ( $p > .05$ ).

Table 12

*The Result of t-Test Analysis Showing the Differentiation of Parents' Views on Artistic, Sportive, Social and Cultural Activities According to Being a Mother or Father*

Item (Artistic, Sportive, Social and Cultural Activities)	Parent	Descriptive Sta.			t-Test		
		N	$\bar{X}$	sd	t	df	p
01. The school's international memberships	Mother	138	3.62	1.09	2.62	203	0.009**
	Father	67	4.03	0.94			
02. Artistic activities carried out within the school	Mother	138	4.07	0.85	1.39	203	0.166
	Father	67	4.24	0.82			
03. Sports activities carried out within the school	Mother	138	4.20	0.86	1.18	203	0.239
	Father	67	4.34	0.79			
04. School participation in social responsibility projects	Mother	138	4.30	0.73	0.31	203	0.756
	Father	67	4.27	0.85			
05. Additional study time and club activities provided by the school to students	Mother	138	4.35	0.81	0.72	203	0.473
	Father	67	4.43	0.76			

\*\* $p < .01$

According to the independent samples t-Test conducted to investigate the parents' views on artistic, sportive, social and cultural activities, it was determined that the only difference between the parents' views was the one regarding the school's international memberships [ $t_{(203)}=2.62$ ;  $p < .01$ ]. The fathers ( $\bar{X}=4.03$ ) who participated in the study put a greater emphasis on / took more account of the fact that the school has international memberships than mothers ( $\bar{X}=3.62$ ). The other items (factors) related to artistic, sportive, social and cultural activities were similarly evaluated (taken into account) by the mothers and fathers involved in the questionnaire ( $p > .05$ ).

Table 13

*The Result of t-Test Analysis Showing the Differentiation of Parents' Views on Management and Academic Staff Characteristics According to Being a Mother or Father*

Item (Management and Academic Staff Characteristics)	Parent	Descriptive Sta.			t-Test		
		N	$\bar{X}$	sd	t	df	p
01. School administrators communicating well with parents	Mother	138	4.75	0.48	1.30	203	0.194
	Father	67	4.66	0.54			
02. Experienced teachers working at the school	Mother	138	4.60	0.68	1.17	203	0.242
	Father	67	4.48	0.77			
03. Political opinion reflected by the school	Mother	138	4.12	1.00	0.72	203	0.470
	Father	67	4.22	1.01			
04. Religious opinion reflected by the school	Mother	138	4.32	0.98	0.90	203	0.367
	Father	67	4.45	0.91			
05. The school's staff of teachers not changing frequently	Mother	138	4.70	0.49	0.51	203	0.614
	Father	67	4.66	0.57			
06. Having full-time medical staff at the school	Mother	138	4.41	0.71	0.91	203	0.363
	Father	67	4.51	0.66			
07. Having many young and dynamic teachers	Mother	138	4.21	0.84	0.47	203	0.641
	Father	67	4.27	0.85			
08. Continuous lack of permanent school staff of teachers	Mother	138	4.43	0.81	0.25	203	0.801
	Father	67	4.40	0.92			

\* $p < .05$

According to the independent samples t-test, which was conducted to investigate the differences between parents' views on management and academic staff characteristics, there is not any item for which the views of mothers and fathers differed significantly. Items related to management and academic staff characteristics were similarly evaluated by the mothers and fathers involved in the questionnaire ( $p > .05$ ).

Table 14

*The Result of t-Test Analysis Showing the Differentiation of Parents' Views on Communication Processes According to Being a Mother or Father*

Item (Communication Processes)	Parent	Descriptive Sta.			t-Test		
		n	$\bar{X}$	sd	t	df	p
01. Comments made by other parents at the school	Mother	138	3.80	0.96	-0.06	203	0.951
	Father	67	3.81	1.00			
02. Reference of people	Mother	138	4.11	0.77	0.41	203	0.685

	<i>Father</i>	67	4.06	0.89			
03. Ads given by the school	<i>Mother</i>	138	3.06	1.12	0.17	203	0.869
	<i>Father</i>	67	3.03	1.21			
04. Teachers open to communication	<i>Mother</i>	138	4.74	0.46	2.06	203	0.041*
	<i>Father</i>	67	4.55	0.56			
05. Quality of teacher-parent communication	<i>Mother</i>	138	4.80	0.42	2.32	203	0.022*
	<i>Father</i>	67	4.64	0.57			
06. Teachers taking into account the wishes and demands of parents	<i>Mother</i>	138	4.70	0.46	2.79	203	0.006**
	<i>Father</i>	67	4.48	0.68			
07. Provision of parent participation in activities carried out during the academic year	<i>Mother</i>	138	4.46	0.63	0.16	203	0.873
	<i>Father</i>	67	4.45	0.74			

\* $p < .05$ , \*\* $p < .01$

For the parents involved in the questionnaire of factors affecting their private school preferences, it was found that the parents' views on the communication processes differed for three factors (Items 4, 5 and 6) depending on their being a mother or father. According to this; it was found that the parents' views regarding teachers' openness to communication (Item 4) differed on the basis of being a mother or father, and this difference was in favor of mothers [ $t_{(203)}=2.41$ ;  $p < .05$ ]. The mothers ( $\bar{X}=4.74$ ) who participated in the study put more importance on teachers being open to communication than fathers ( $\bar{X}=4.55$ ).

It was found that the levels of parents taking into account the quality of teacher-parent communication (Item 5) also differed according to being a mother or father, and this difference was again in favor of mothers [ $t_{(203)}=2.32$ ;  $p < .05$ ]. The mothers ( $\bar{X}=4.80$ ) who participated in the study cared more about the quality of teacher-parent communication than fathers who participated ( $\bar{X}=4.64$ ).

Finally, it was found that parents' views on teachers' consideration of parents' wishes and demands (Item 6) also differed according to being a mother or father, and this difference was again in favor of mothers [ $t_{(203)}=2.79$ ;  $p < .01$ ]. For the mothers ( $\bar{X}=4.70$ ) who participated in the study, that the teachers take account of the parents' wishes and demands was more important compared to the fathers ( $\bar{X}=4.48$ ).

When evaluated, for the parents who participated in the questionnaire of the factors affecting parents' private school preferences, there was no significant difference between mothers or fathers' views ( $p > .05$ ) regarding their other statements / items about the communication processes.

Table 15

*The Result of t-Test Analysis Showing the Differentiation of Parents' Views on Economic Resources According to Being a Mother or Father*

Item (Economic Resources)	Parent	Descriptive Sta.			t-Test		
		n	$\bar{X}$	sd	t	df	p
01. The school fee in line with the family budget	Mother	138	4.52	0.56	0.95	203	0.345
	Father	67	4.43	0.76			
02. Fairness of the school's scholarship policy	Mother	138	4.48	0.71	0.26	203	0.794
	Father	67	4.45	0.93			
03. Social activities free of charge during the school period	Mother	138	4.01	1.03	-0.58	203	0.566
	Father	67	4.10	1.10			
04. Lack of high costs of books and stationery	Mother	138	4.22	0.91	0.06	203	0.954
	Father	67	4.21	1.11			

\* $p < .05$

According to the independent samples t-Test conducted to investigate the differentiation of parents' views on economic resources depending on being mothers or fathers, the parents evaluated no items under this dimension differently. The items related to economic resources were similarly evaluated by the mothers or fathers involved in the study ( $p > .05$ ).

Table 16

*Frequency and Percentage Distribution According to Reason for Changing Private School the Child Attended Before*

<b>Reason for Changing School</b>	<b>f</b>	<b>%</b>
Communication problems with school staff (administrator/teacher/officer/security guard etc.)	18	24.0
Academic incompetency of the school	16	21.3
Better facilities of the school the child attending now	14	18.7
Cultural mismatch between the school and parents	8	10.7
Financial Reasons	5	6.7
We changed school when he/she started primary school after kindergarten	1	1.3
They didn't go to any other school	1	1.3
I transferred from public school to private school	1	1.3
Due to being appointed out of province	1	1.3
Due to end of stage (kindergarten-primary school)	1	1.3
School closed	1	1.3
School was sold	1	1.3
Selling the school to another institution	1	1.3
School closure	1	1.3
Miscommunication between students and their friends	1	1.3
Passing the exam	1	1.3
Moving out of province	1	1.3
Moving into a new house	1	1.3
Due to being appointed	1	1.3

When the reason was asked to the parents why they changed their children's previous private school, 19 different causes were identified. The first three reasons expressed most for school change were determined respectively as follows: "communication problems with school staff (administrator/teacher/officer/security guard, etc.)" with 24.0% (18 people), "academic incompetency of the school" with 21.3% (16 people) and "better facilities of the school the child is attending now" with 18.7% (14 people).

### **Discussion**

When the dimensions affecting parents' private school preferences were examined, the dimension that most affected parents' preferences was the management and academic staff characteristics of the private school. Following "management and academic staff characteristics", the dimensions affecting the parents' preferences for school from highest to lowest were as follows: "the physical conditions of the school"; "economic resources"; "communication processes"; "artistic, sportive, social and cultural activities"; "educational activities".

It was found that the first three situations which the parents who participated in the study placed most emphasis regarding the "management and academic staff characteristics" dimension of the questionnaire were,

respectively, school administrators communicating well with parents; the school's staff of teachers not changing frequently; and experienced teachers working at the school. In the questionnaire of the factors affecting private school preferences, the situation which parents gave the least importance regarding the dimension of the management and academic staff characteristics was the political opinion reflected by the school.

Parents who participated in the study had high scores regarding the dimension of the “physical conditions of school” in the questionnaire of factors affecting their private school preferences. The first three situations that parents cared most about in the physical conditions of the school were that the school pays attention to cleanliness and hygiene; the school has a quality security service; and the meals served in the school dining hall are healthy and delicious. Among the physical conditions of the school, the situation which the parents involved in the study gave the least importance was the quality and niceness of the school uniforms.

Parents who participated in the study placed the most emphasis regarding the “economic resources” dimension of the questionnaire of factors affecting their private school preferences was the school fee in line with the family budget. The least important situation in the questionnaire regarding the economic resources dimension was that the social activities carried out during the school period were free of charge.

Finally, the first three situations that parents place the most importance on regarding the “communication processes” dimension of the questionnaire of factors affecting private school preferences were, respectively, the quality of teacher-parent communication; the openness of teachers to communication; and the teachers' consideration of wishes and demands of parents. The least important situation for them was the ads given by the school.

The first three situations which the parents involved in the study placed most emphasis regarding the “artistic, sportive, social and cultural activities” dimension of the questionnaire of factors affecting private school preferences were, respectively, additional study time and club activities the school provides for the students; participation of the school in social responsibility projects. The last two situations these parents gave the least importance were sportive activities carried out in the school and the school's international memberships, respectively.

The situations that parents cared most about in the dimension of the school's educational activities, which was in the second place, were that the school's central examination and foreign language education achievements were high. Regarding the educational activities of the school, the parents who participated in the study gave the least importance to that the establishment date of the school was old.

The first of the reasons for changing private schools according to parents involved in the study was communication problems with school staff. The second reason for changing schools was the academic incompetence of the school. The third reason for changing schools was cultural mismatch between the school and parents.

According to the findings obtained when the parents' reasons for preferring private schools were examined, the most important dimension for parents was the characteristics of the school's management and academic staff. The most effective item determining the reasons for parents' preferences was the school's emphasis on cleanliness and hygiene. In the study conducted by [Çelikten \(2010\)](#), the first factor affecting the parents' preferences for private schools was the fact that the educational staff was experienced and equipped. According

to Çelikten, the most important consideration of parents in their private school preferences was the staff of teachers. The findings obtained differ from those of Çelikten's (2010) study in terms of the most effective factor. Nevertheless, in both studies, these findings had high scores. According to the study conducted by Mermertaş (2014), the most effective factor determining private school preferences was the high success of the school in international examinations, which was included in the educational quality dimension.

According to the findings obtained by examining the reasons for parents' preferences for private schools, the least important factor for parents was the quality and niceness of school uniforms. It is possible to say that parents, while opting for private school, are least affected by school uniforms. There appears to be parallels between the results of the study conducted by Parlar (2012) and the findings. According to Parlar's study, the findings that least affected parents' private school preferences were the school's acceptance of students without exams and the poor quality of school uniforms. According to research findings by Çelikten (2010), the factor that least affected parents' private school preferences was that the school had an accurate advertising policy. In this respect, this finding obtained by the research conducted by Çelikten (2010) does not coincide with the findings. The school's advertising policy was an item that parents remained undecided in the study conducted by me. In Çelikten's study, the school's advertising policy had a minimal effect on the parents' preference process, while according to this research, what parents said was neither important nor unimportant. Not only did they not care much, but at least they did not find it unimportant at all. The fact that there is this kind of difference in the study can be explained in terms of the years when researches were conducted. Ads and media have been increasing in importance recently and reaching a position to affect people's lives. In the study conducted by Nohutçu (1999), the financial situation of the school was the factor that least affected the parents' preferences for private schools. The findings obtained and this result do not show any parallels. When looked at the findings obtained by Nohutçu (1999), it was stated by the parents who participated in the study that despite being above average, the financial elements did not affect as much as the other items. The fact that the study was conducted in 1999 may have been a variable affecting this situation. In the researches of the Kültür Koleji (1993) and Ergin (1993), it is seen that the financial issues were in the last place. Since the dates of the researches, it is possible to say that the impact of financial conditions has increased.

In the research, the factors that parents definitely took into account when preferring private schools for their children and gave high importance to them were stated below. Among the factors they definitely took into consideration regarding the physical conditions of the school were the physical competence and attraction of classes; the quality of the technical infrastructure of the school; the importance the school attaches to technological developments; having the appropriate equipment at the school in line with the technological developments; having social facilities at the school such as laboratory, library, gymnasium, pool; having a quality security service at the school; the importance the school attaches to cleanliness and hygiene; healthy and delicious meals served in school dining hall. The most important factor they took into consideration regarding the dimension of the physical conditions was the school's emphasis on cleanliness and hygiene.

Among the factors related to the communication processes, the items that parents took into account most were as follows: teachers' openness to communication; the quality of teacher-parent communication; the teachers' consideration of wishes and demands of parents; ensuring parent participation in activities carried out



during the academic year. The item taken into consideration most regarding communication processes was the quality of teacher-parent communication.

From among the factors regarding economic resources, the items parents considered most were the following: school fee in line with the family budget; the school's scholarship policy of high quality; and that the costs of books and stationery are not high. The most important consideration regarding economic resources was the school fee in line with the family budget. The family's sending their children to schools suitable for their economic conditions is an easier and more proper option in terms of livelihood.

Among the factors related to the educational activities, the items the parents took most into consideration were as follows: the school's success in the TEOG (central examination) and also in foreign language education.

Among the factors related to artistic, sportive, social and cultural activities, the item the parents considered most was the additional study time and club activities that the school provides to students. The least consideration in this area was the school's international memberships.

Among the factors that parents considered most related to management and academic staff characteristics were: good communication with parents; experienced teachers working at the school; religious views reflected by the school; non-frequent changes in the staff of teachers at the school; presence of young dynamic teachers in the staff. Among these factors, it was said that the most attention was paid to the fact that the staff of teachers did not change frequently. The families expressed the importance of this item in order to ensure the educational processes of the students who had a positive commitment to their teachers especially during primary school were not harmed. Indeed, during the primary school period in which frequently changes of educational staff occur, there may be disruptions in the educational activities of the students. When the results of the research conducted by [Çelikten \(2010\)](#) were examined, the most important factor that parents took into account in terms of their private school preferences was that the educational staff was academically experienced and equipped. When our findings were examined, experienced and equipped staff, despite being at a high level, was not the reason for preference expressed in the first place. According to [Çelikten \(2010\)](#), the primary reason for preference was experienced and equipped educational staff, while according to our findings the most important factor in the related field was non-frequent changes in the staff of teachers. The findings are close to each other, but do not show any direct parallels. As the reason for this, we can say that there is an intensive and frequent change of teacher staff at the end of the academic year within the private school. Indeed, the parents of the students who continue their education in the private school share with the school administration the difficulties they experience because of the change of the teacher staff.

According to the study conducted by [Nohutcu \(1999\)](#), determining factors in preferences for schools were expressed as follows: the characteristics of those serving in educational activities as the first priority; foreign language education as the second priority; personal services supporting the mental and physical development of children as the third priority. In the study conducted by [Nohutçu \(1999\)](#), the characteristics of administrators and teachers came to the fore, and according to our findings, they were again the characteristics of the school's management and academic staff. With this aspect, it can be said that the results of the studies are paralleled. Likewise, according to the study conducted by [Ergin \(1993\)](#), the quality of the teacher staff was the factor that most influenced the parents' preferences for private schools. On the other hand, in the study by [Smedley \(1995\)](#), it was expressed that the main factor affecting private school preferences was safety and security. The study,

contrary to expected, was based on students' safety rather than academic concerns. In the same study, two other factors that influence parents' decisions at a high level were the school's closeness to home and then academic factors.

According to the findings, when looking at the reasons for changing private schools, first, communication problems experienced by school staff and parents came to the fore. The second and third reasons that necessitated changing schools were, respectively, the lack of academic success of the school and the inability of the school-parent culture to match each other. According to [Parlar \(2006\)](#), the academic level of the students was the primary reason for parents to change private schools. The reason for this mismatch can be explained by conduction of researches at different dates. Communication problems in recent years have become more effective in changing schools.

According to the study by [Uysal \(2017\)](#), it was expressed that there was no meaningful relationship between parents' genders and private school preferences. In this study, differences were found to be significant in six different items in four dimensions according to the parents' being mothers or fathers.

This research is a study aimed at determining parents' private school preferences. The research includes findings that will contribute to private schools in terms of positioning themselves according to the recognition of parents' private primary school preferences.

In line with the findings of this study, private schools are advised to take into account the preference priorities of parents and the issues given priority on school preferences according to the parents' being mothers or fathers. In addition, private schools will take precautions by being informed about under which circumstances parents take their children from a private school where they attended and enroll in other schools.

Perhaps one of the most striking results of the study is that while parents prefer private primary schools, the dimension of "educational activities" scores the lowest. This is important for teachers to review both in-school and in-class teaching and learning processes, especially with regard to the concept of academic achievement. The findings about this dimension are considered to be an important issue that school founders and administrators, who are decision makers in private primary school management, should also focus on.

Private primary schools are alternatives to public primary schools in Turkey. Therefore, research that is more detailed should be done especially in the learning outcomes of both type of primary schools. Because effectiveness of schools depends on, what kind of outcomes, they can produce.

### **Ethics Approval**

I declare that the research was conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. There is no conflict of interest in the research. The authors received no financial support for the authorship, research, and/or publication of this article.

## References

- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö.E., Karadeniz, Ş., & Demirel, F. (2016). *Bilimsel araştırma yöntemleri* [Scientific research methods ] Ankara, Turkey: Pegem Akademi.
- Candaş, A., Akkan, B.E., Günseli, S. & Deniz, M.B. (2011). *Devlet ilköğretim okullarında ücretsiz öğle yemeği sağlamak mümkün mü?* [Is it possible to provide free lunch at public primary schools?] İstanbul: Açık Toplum Vakfı. (Open Society Foundation) Retrieved from [https://spf.boun.edu.tr/sites/spf.boun.edu.tr/files/1439801191\\_spf\\_okulda\\_yemek\\_raporu\\_0.pdf](https://spf.boun.edu.tr/sites/spf.boun.edu.tr/files/1439801191_spf_okulda_yemek_raporu_0.pdf)
- Çelikten, S.B. (2010). *Özel okul velilerinin okul tercihlerini etkileyen faktörler*. [The factors that affect the school preferences of the private school parents] (Master's thesis, Yeditepe University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Ergin, D.Y. (1993). *Özel bir kolejde yapılan imaj araştırması* [Image research at a private college] (Unpublished Report ) İstanbul
- Goldhaber, D.D. (1996). Public and private high schools: Is school choice an answer to the productivity problem? *Economics of Education Review*, 15(2), 93-109.
- Karasar, N. (2005). *Bilimsel araştırma yöntemi: kavramlar-ilkeler-teknikler* [Scientific research method: Concepts, principles, techniques] Ankara, Turkey: Nobel Publication
- Kültür 2000 (1993). *21. yüzyıla yaklaşırken kültür kolejinin geleceği üzerine düşünceler* [As we approach the 21st century, thoughts on the future of the Kültür college] İstanbul, Turkey: Kültür College Publication
- Mermertaş, M.F. (2014). *Özel eğitim kurumlarının tercih nedenleri ile öğrencilerin memnuniyeti arasındaki ilişki: Şırnak örneği*. [The relationship between students satisfaction with special educational institutions the reasons: the case of Şırnak] (Master's thesis, Türk Hava Kurumu University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- National Education Statistics Formal Education, (2019). A Publication of Official Statistics Programme, T.C. Millî Eğitim Bakanlığı Strateji Geliştirme Başkanlığı. Retrieved from [http://sgb.meb.gov.tr/www/icerik\\_goruntule.php?KNO=361](http://sgb.meb.gov.tr/www/icerik_goruntule.php?KNO=361)
- Nohutçu, A. (1999). *Velilerin özel okul tercihlerini etkileyen faktörler ve özel okulların reklam stratejileri* [The Factors that affect the private school preferences of the parents and the advertisement strategies of the private schools] (Master's thesis, Marmara University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Parlar, H. (2006). *Velilerin özel okul tercihlerini etkileyen faktörler ve özel okulların durumu* [Factors affecting parents' private school preferences and the situation of private schools.] (Master's thesis, Yeditepe University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Parlar, H. (2012). Özel okullarda özel okul sahiplerinin ve üst düzey yöneticilerinin güçlendirilmiş bir iş çevresi yaratmaya ne kadar istekli ve hazır olduklarının tespitine ilişkin bir araştırma. [A research on pointing out the willingness and readiness of private school owners and senior managers to create a strong business environment at private schools.] *İstanbul Commerce University Journal of Social Sciences* , 11(21), 127-146.

- Regulation on Private Education Institutions, (2012). Millî Eğitim Bakanlığı Özel Öğretim Kurumları Yönetmeliği [Ministry of National Education Regulation on Private Education Institutions]. Retrieved from [https://ookgm.meb.gov.tr/meb\\_iys\\_dosyalar/2019\\_04/15095220\\_YZEL\\_YYRETYM\\_KURUMLARI\\_YYNETMELYYY\\_\\_20.6.2017-30102.pdf](https://ookgm.meb.gov.tr/meb_iys_dosyalar/2019_04/15095220_YZEL_YYRETYM_KURUMLARI_YYNETMELYYY__20.6.2017-30102.pdf)
- Smedley, D. (1995). Marketing secondary schools to parents-some lesson from the research on parental choice. *Education Management and Administration*, 23, 2-8.
- Uysal, B.S. (2017). *Velilerin özel okul tercih nedenlerinin incelenmesi* [investigation of the reasons for private school choice of parents] (Master's thesis, Marmara University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Yaacob, N.A., Osman, M.M. & Bachok, S. (2014). Factors influencing parents' decision in choosing private schools. *Procedia - Social and Behavioral Sciences* 153, 242– 253. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042814055001?via%3Dihub>
- Yılmaz, K. (2005). İlköğretim okulu öğrencilerinin okul yaşamının niteliğine ilişkin görüşleri [Views of primary school students on the quality of school life] *Pamukkale University Journal of Education Dergisi*, 17 1, 1-13.

## Teaching Vocabulary through Games: A Comparative Study of the 4th and the 7th Grades\*

Gamze Argit<sup>1</sup>

*Ministry of Education*

Eda Ercan Demirel<sup>2</sup>

*Necmettin Erbakan University*

Onur Köksal<sup>3</sup>

*Selcuk University*

### Abstract

Having the essential role of games in vocabulary teaching in mind, the study focused on the effectiveness of games. Thus, the present study aimed to find out whether there is a difference between the 4th grades and the 7th grades in terms of teaching vocabulary through games. A comparative research design was applied within the study. Pre- tests, post- tests, course-books, workbooks, games and worksheets were used as instruments. The experimental groups were taught through games and the control groups were taught through current-curriculum methods. After the implementation process, the pre and post-tests' scores were calculated. According to the results, vocabulary instruction through games was found to be more efficient than the current-curriculum methods for the 4th grades, no significant difference was found within the groups of the 7th grades, and using games to teach vocabulary in the 4th grades was found to be more effective compared to using games to teach vocabulary in the 7th grades. Studying the previous research, it has been seen that there is no comparison between primary and secondary school students' vocabulary learning levels through games. Therefore, the results of the study are expected to shed light on this lack in the field.

### Key Words

Vocabulary teaching • Games in vocabulary teaching • Young learners • Adolescent learners

\* Presented as a paper in ICRAAL 2019, Konya, Turkey.

\* Adapted from the MA thesis, Teaching Vocabulary Through Games: A comparative Study of 4th and 7th Grades.

<sup>1</sup> Teacher, Ministry of Education, Konya, Turkey. E-mail: gamzeargit@hotmail.com **ORCID:** 0000-0001-5798-4619

<sup>2</sup> **Correspondance to:** Assist. Prof. Dr., Necmettin Erbakan University, ELT Department, Konya, Turkey. E-mail: eeercan84@hotmail.com **ORCID:** 0000-0001-7686-1550

<sup>3</sup> Assoc. Prof. Dr., Selcuk University, SOFL, Konya, Turkey. E-mail: onurkoksals38@hotmail.com **ORCID:** 0000-0003-0798-3620

**Citation:** Argit, G., Ercan Demirel, E. & Köksal, O. (2020). Teaching vocabulary through games: A comparative study of the 4th and the 7th grades. *Research on Education and Psychology (REP)*, 4(1), 41-53.

Vocabulary has been defined as words and phrases to indicate the things about a concept (Blachowicz & Fisher, 2015) and used for special purposes while telling something precise (Oxforddictionaries, 2018) in a foreign language (Ur, 1996). It can also be stated that vocabulary is more than just a single word and each vocabulary piece should be called an "item" rather than a "word" (Ur, 2012, p. 60).

The importance of vocabulary has been stated within the lines, "a powerful carrier of meaning" (Scrivener, 1994, p. 73), since the words, the vocabulary items are what make the language a meaningful whole. Similarly, Scrivener (1994) mentioned an important point that a person who says "I wonder if you could lend me your..." may not be able to have an effective communication without the word "calculator" despite it is sometimes enough to say only the word "Calculator?" (p. 73). Therefore, rich vocabulary knowledge might be asserted as the key for an effective communication.

Some linguists claim that vocabulary is the key element of language acquisition without thinking the kind of language -first, second or foreign. (Decarrico, 2001). Some linguists even think that vocabulary instruction should be the first step in foreign language teaching and learning process as it is necessary to succeed in a healthy communication (Coady & Huckin, 1997) because "feeling inadequate in choosing the right vocabulary items makes the speaker angry and breaks the communication" (Wallace, 1982, p. 9). It has been understood that the vocabulary knowledge is as important as the other parts of the language because it is clear that without sufficient vocabulary knowledge, a meaningful and proper communication cannot be mentioned (McCarthy, 1990) even when grammar is learnt well and the sounds are controlled successfully.

Vocabulary has not always been in the same place ever before. Vocabulary teaching used to be the least important and even neglected part of language teaching for a long time (Allen, 1983; Carter, 1998; Richards, 1985). Gradually, traditional methods gave place to modern methods and teaching/learning vocabulary has become one of the crucial parts of language teaching. As vocabulary has got its just reward in recent years (Thornbury, 2004), educators and students have become in search for techniques, strategies and methods for an effective teaching/learning vocabulary.

As learning a language is a hard work and even it may sometimes be annoying (Ersöz, 2000; Kim, 1995), to overcome the problems of learning and teaching a language, and to make the lessons effective, many studies have been conducted by linguists, academicians and researchers. As a result, in modern language teaching approaches, games are used to minimize the problems as they help to struggle against the difficulties (Kim, 1995), and depending on students, make the language learning process easy, and create a free, relaxing, and motivating atmosphere.

Games are thought to have many advantages in the teaching/learning process. First, games are asserted to present a wide range of opportunities for context. Languages can better be learnt through experiences, and may offer conditions to use the language in a meaningful way (Lee, 1965), and a "meaningful context" is a really essential element for the instructors (Chen, 2005; Derakhshan & Khatir, 2015, p. 39; Ersöz, 2000; Hadfield, 1990, p. vii; Kim, 1995, p. 35; Masri & Najjar, 2014, p. 144; Wright, Betteridge & Buckby, 1984, p. 1) by bringing "real world" into the classroom in a flexible and communicative way (Ajibade & Ndububa, 2008, p. 31; Derakhshan & Khatir, 2015, p. 40).

Many researchers, linguists and educators agree on the idea that games are motivating (Bakhsh, 2016; Chen, 2005; Ersöz, 2000; Kim, 1995; Lengeling & Malarcher, 1997; Masri & Najjar, 2014) as well. “Physical-movements in games” help to make young learners alerted and stimulated, prevent them from being bored (Bakhsh, 2016, p. 123). Games help to prepare a positive environment for the learners (Blachowicz & Fisher, 2015) as most of the games provide competition in a friendly way (Chen, 2005; Derakhshan & Khatir, 2015), which is an effective factor in increasing motivation. Games can provide the feeling of necessity which is a good stimulator for learning as students must master necessary vocabulary items to be successful in the games (Allen, 1983).

In addition to its motivating effect, a game can decrease the level of anxiety (Ajibade & Ndububa, 2008; Chen, 2005; Masri & Najjar, 2014). This is an important point as anxiety can make the students feel stressed and disturbed, which might have a negative influence on the learning process, and develop barriers to learning.

Lee (1965) mentions the value of fun in language education for an effective teaching process. Especially young learners are eager learners (Cameron, 2002) and the games can meet the needs of the learners by making the lessons amusing and attracting the interests of the learners (Bakhsh, 2016). Bringing amusement to the classrooms helps to provide a long-lasting teaching and learning process in an easy and funny way (Masri & Najjar, 2014). Offering relaxing and funny ways (Chen, 2005; Lengeling & Malarcher, 1997), games defeat boredom (Bakhsh, 2016) especially while learning and teaching language (Kim, 1995).

Games are also useful to revise vocabulary items (Lengeling & Malarcher, 1997), and they usually have a concept enabling to teach and learn the target vocabulary items in a meaningful context with an unlimited chance for repetition. The repetition may be fun when they are taught using games (Bakhsh, 2016).

A healthy communication is needed to be successful in a game as players need to understand each other (Rixon, 1981). With the same purpose, a game is of great importance to teach the social skills such as cooperation and obeying rules (Reilly & Ward, 2000) because a game includes, encourages and increases competition, cooperation, collaboration and rules at the same time and in positive ways (Ajibade & Ndububa, 2008; Chen, 2005; Derakhshan & Khatir, 2015; Ersöz, 2000; Kim, 1995; Lee, 1965; Lengeling & Malarcher, 1997; Masri & Najjar, 2014).

Getting the critical part of teaching language, the study focused on teaching vocabulary through games. Studying the previous research, the importance of using games in teaching vocabulary has been detected but without any comparison between primary and secondary school students’ vocabulary learning levels through games. Therefore, the study focused on this need in the field.

## Method

### Research Model

The study aimed to investigate whether there was a difference between the 4th graders and the 7th graders in terms of teaching vocabulary through games, and employed a quantitative research design searching for the effect of games in teaching vocabulary.

This study examined the empirical evidence for the supposed superiority of the games over the current-curriculum methods with three research questions:

1. Is there a significant difference between the pre-test and post-test scores of the 4th graders in terms of vocabulary learning through games?
2. Is there a significant difference between the pre-test and post-test scores of the 7th graders in terms of vocabulary learning through games?
3. Is there a significant difference between the scores of the 4th and the 7th graders in terms of their improvement ?

The study was approved by Social and Humanities Research and Publication Ethics Committee of Necmettin Erbakan University, and Ministry of Education on 06.04.2017 with 83688308-605.99-E.4735254.

### Study Group

The study was conducted in 2016-2017 academic year at a primary and a secondary state school in a district of Konya. Within the comparative research design, the study was carried out with two experimental and control groups of 115 students in total. As the subjects within the curriculum are organized as spiral in 5th and 6th grades, and considering the fact that there were TEOG (transition from primary to secondary education) exam in 8th grades and the diversity of the subject was more clear in the 7th grade; the 7th graders were chosen as participants in the secondary school part of the study. The 4th graders were chosen for the primary school part of the study as it was the only grade that a written test could be applied - there was no chance of having written exam with 1st, 2nd or 3rd grades. Moreover, throughout the literature and previous studies reviews, no comparative study of the 4th and the 7th grades was detected. With this lack in the field, the research and the participant groups were designed. The study was conducted with 52 primary school students at the 4th grade (27-experimental group/ 25-control group) and 63 secondary school students at the 7th grade (31-experimental /32-control).

### Data Collection Tools

Pre-tests, post-tests, course books, workbooks, games and worksheets were used as instruments within the study. 10th units in “Middle School English Route 7 Students Book and Workbook”, and “İlkokul Sunshine 4 Students’ Book and Workbook” were used for the study. Board games, matching games, memory games, word games and outside games were used only for the experimental groups in the study. The games were chosen, developed or rearranged to be served for the study by the researcher consulting language and educational experts, and considering views of the colleagues. The target words were the focus of the games. Dictionary use activities, gap-filling activities, matching activities in the forms of worksheets were used for the control groups



in the study, and the target words were the focus of these activities. For each level, the last units in the curriculum were chosen not to interrupt the planned period by the teachers of the classes. 50 words and phrases were chosen from unit 10 for the 4th grades and 45 words and phrases were chosen from unit 10 for the 7th grades for the vocabulary test to be used as a pre-test/post-test. Vocabulary tests were used as a pre-test/post-test after the pilot studies for reliability and validity.

### Data Analysis

It is useful to examine each week to make the data collection procedure clear. The process lasted for 7 weeks. The pilot tests were carried out on the very first week on 274 students at the 4th and the 5th grades, and 271 of the 6th, 7th, and 8th grades studying at other schools. The pre-tests were applied on the second week. The pre-tests for the 4th and the 7th grades included 25 multiple choice questions that were reliable and valid items of the pilot tests and involved target vocabulary items (Cr. Alpha 0.81-4th grade/ Cr. Alpha 0.87-7th grade). The implementation sessions were carried out on the following four weeks. The control groups were taught through current curriculum methods and the experimental groups were taught through games chosen, developed or rearranged to be served for the study by the researcher by consulting language and educational experts and the views of the colleagues were also taken into consideration. At the end of the implementation process carried out by the researcher, the post-tests were conducted. Having completed the data collection, data analysis was done through SPSS.

### Findings

The pre-test was used to test the equivalence of the experimental and the control groups; and also to compare the results of the post-tests to examine the improvement within and between the groups.

Table 1

*Pre-test Scores – 4th Grades- Experimental and Control Groups- Independent Samples T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Experimental	27	10.2593	4.27509	0.344	p>0.05 (p=0.624)
Control	25	9.8000	4.34933		

Table 1 shows the average scores of the experimental group as 10.2593, and that of the control group as 9.8000 with the t value being 0.344 at the 0.624 level of significance. As p value being > 0.05, it was found that there was no significant difference between the experimental and the control groups. As a result, it can be stated that both groups were found to be equal in terms of their prior vocabulary knowledge.

Table 2

*Pre-test Scores 7th Grades - Experimental and Control Groups- Independent Samples T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Experimental	31	13.5806	4.34951	0.301	p>0.05 (p=0.765)
Control	32	13.2581	4.313898		

In Table 2, experimental group's average scores are seen to be calculated as 13.5806, and as 13.2581 for the control group with the t value being 0.301 at the 0.765 level of significance. As p value being  $>0.05$ , no significant difference between the experimental and the control groups was found. As a result, it can be stated that both groups were found to be equal in terms of their prior vocabulary knowledge.

Table 3

Post-test Scores 4th Grades - Experimental and Control Groups- Independent Samples T-Test Analysis

Groups	N	Mean	Std. Deviation	t	Level of Significance
Experimental	27	19.6667	5.64006	4.009	$p < 0.05$ ( $p = 0.001$ )
Control	25	13.8000	4.02078		

The aim of the post-test was to compare the enhancement of the experimental and the control groups. Table 3 indicates the average scores of the experimental group as 19.6667, and that of the control group as 13.8000 with the t value being 4.009 at the 0.001 level of significance. As p value being  $< 0.05$ , a statistically significant difference was found between the experimental and the control groups in favour of the experimental group.

Table 4

Post-test Scores 7th Grades - Experimental and Control Group- Independent Samples T-Test Analysis

Groups	N	Mean	Std. Deviation	t	Level of Significance
Experimental	31	19.6129	3.86518	1.210	$p > 0.05$ ( $p = 0.236$ )
Control	32	18.3548	3.36203		

Table 4 presents the average scores of the experimental group as 19.6129, and the control group as 18.3548 with the t value being 1.210 at the 0.236 level of significance. As p value being  $> 0.05$ , it was seen that there was no significant difference between the experimental and the control groups.

Table 5

Comparison of the Pre-test with Post-test Results within the Experimental Group – 4th Grades- Dependent T-Test Analysis

Groups	N	Mean	Std. Deviation	t	Level of Significance
Pre-test	27	10.2593	4.27509	6.985	$p < 0.05$ ( $p = 0.001$ )
Post-test	27	19.6667	5.54006		

According to Table 5, the average scores of the experimental group's pre-test were calculated as 10.2593 and the post-test as 19.6667 with the t value being 6.985 at the 0.001 level of significance. As p value being  $< 0.05$ , it was found that there is statistically significant difference between the pre-test and the post-test scores of the experimental group of the 4th grades.

Table 6

*Comparison of the Pre-test with Post-test Results within the Control Group – 4th Grades- Dependent T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Pre-test	25	9.8000	4.34933	3.377	p<0.05 (p=0.001)
Post-test	25	13.8000	4.02078		

Table 6 indicates the average scores of the control group's pre-test as 9.8000 and the post-test as 13.800. with the t value being 3.377 at the 0.001 level of significance. As p value being < 0.05, a statistically significant difference was found between pre-test and post-test scores of the control group of the 4th grades.

Table 7

*Comparison of the Post-test with Post-test Results within the Experimental and Control Groups – 4th Grades- Independent T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Experimental Group Post-test	27	9.4074	4.49152	3.377	p<0.05 (p=0.001)
Control Group Post-test	25	4.0000	3.78594		

The average scores of the experimental and the control group's post-tests were calculated as 9.4074 and 4.0000 successively with the t value being 3.377 at the 0.001 level of significance. As p value being < 0.05, it was found that there was statistically significant difference between post-test results of the experimental and control groups of the 4th grades in favour of the experimental group.

Table 8

*Comparison of the Pre-test with Post-test Results within the Experimental Group – 7th Grades- Dependent T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Pre-test	31	13.5806	4.34951	5.774	p<0.05 (p=0.001)
Post-test	31	19.6129	3.86158		

In Table 8, experimental group's pre-test average scores are seen to be 13.5806 and that of the post-test as 19.6129 with the t value being 5.774 at the 0.001 level of significance. As p value being < 0.05, it was found that there was statistically significant difference between pre-test and post-test scores of the experimental group of the 7th grades.

Table 9

*Comparison of the Pre-test with Post-test Results within the Control Group – 7th Grades- Dependent T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Pre-test	32	13.0313	4.26905	5.564	p<0.05 (p=0.001)
Post-test	32	18.3438	3.30795		

The average scores of the control group's pre-test were calculated as 13.0313 and the post-test was calculated as 18.3438 with the t value being 5.564 at the 0.001 level of significance. As p value being < 0.05, it was found that there was statistically significant difference between pre-test and post-test scores of the control group of the 7th grades.

Table 10

*Comparison of the Post-test with Post-test Results within the Experimental and Control Groups – 7<sup>th</sup> Grades- Independent T-Test Analysis*

Groups	N	Mean	Std. Deviation	t	Level of Significance
Experimental Group Post-test	31	6.0323	2.58823	0.905	p> 0.05 (p=0.369)
Control Group Post-test	32	5.3125	3.62284		

Table 10 shows the average scores of the experimental group's post-test as 6.0323 and that of the control group as 5.3125 with the t value being 0.905 at the 0.369 level of significance. As p value being > 0.05, it was found that there was statistically no significant difference between post-test results of the experimental and the control groups of the 7th grades.

Table 11

*Achievement Table*

	Pre-test	Post-test	Difference between experimental and control groups of post-test results of 4 <sup>th</sup> & 7 <sup>th</sup> grades	Difference between post- test results of the final scores of 4 <sup>th</sup> & 7 <sup>th</sup> grades
4 <sup>th</sup> grade experimental group	10.2593	19.6667	5.8667	4.6086
4 <sup>th</sup> grade control group	9.8000	13.8000		
7 <sup>th</sup> grade experimental group	13.5806	19.6129	1.2581	
7 <sup>th</sup> grade control group	13.2581	18.3548		

According to Table 11, the mean scores of the 4th grade experimental group for the pre-test were calculated as 10.2593, and for the post-test as 19.6667. In the same way, the mean scores of the 4th grade control group for the pre-test were calculated as 9.8000, and for the post-test as 13.8000. Therefore, an achievement score of

5.8667 was computed between mean scores of the 4th grade experimental and the control groups. As for the 7th grades, the mean scores of the experimental group for the pre-test and post test results were calculated as 13.5806 and 19.6129 successively. The mean scores of the 7th grade control group for the pre-test were calculated as 13.2581, and for the post-test as 18.3548. The achievement score of 1.2581 was computed between mean scores of the 7th grade experimental and the control groups. The difference between post- test results of the final scores for the 4th & 7th grades was found to be 4.6086.

### **Discussion**

The present study investigated a significant difference between the pre and post- test scores of the 4th graders in terms of vocabulary learning through games; a significant difference between the pre and post-test scores of the 7th graders in terms of vocabulary learning through games; and a significant difference between the scores of the 4th and the 7th graders in terms of their improvement.

Considering the data gained, the experimental groups and the control groups resulted to be equal in terms of prior knowledge of vocabulary at the beginning of the study, and all the groups in the 4th and the 7th grades were found to be suitable to conduct the study (see Table 1 and Table 2). After the implementation process and at the end of the statistical calculations, it was concluded that within the 4th graders both the experimental group and the control group improved in terms of their vocabulary knowledge (see Table 5 and Table 6). However, the experimental group's students scored better than that of the control group, and the experimental group was found to be more successful, which means instructing through games was found to be more efficient than teaching through current-curriculum methods (see Table 7). According to the data about the 7th grades, it can be stated that both the experimental and the control group improved their vocabulary knowledge (see Table 8 and Table 9) but there was no significant difference between them (see Table 10). It can be stated that they improved in a close level. As there was found to be no significant difference within the post-test scores of the experimental and control groups, it can't be stated that teaching vocabulary through games surpassed the current-curriculum method instruction for the 7th graders.

Studying the pre-test and post-test scores of the 4th grades and the 7th grades in detail (see Table 11) and making a comparison of the differences between experimental and control groups' post- test results of the 4th & 7th grades and also considering the significant differences in terms of grades within experimental vs. control groups, and finally the difference between post- test results of the final scores of the 4th & 7th grades, it might be concluded that using games to teach vocabulary in the 4th grades was found to be more effective than using games to teach vocabulary in the 7th grades.

Through the review of the previous research, many studies were found conducted on teaching vocabulary or other language skills through games within a kindergarten context (Aslanabadi, 2013), primary school context (Chou, 2012; Cimcim, 2008; Griva, Semoglou & Geladari, 2010; Masri & Najar, 2014) secondary school context (Gülsoy, 2013; Jalali & Dousti, 2012; Özkiraz, 2015; Pirrie, 2017; Şenol, 2007; Tuan, 2012), high school context (Çiftçi, 2010) and adults (Ashraf, Motlagh & Salami, 2014; Dervişoğulları, 2008; Öztürk 2004; Yip & Kwan, 2007) in a quasi-experimental way; and the results of these studies go in line with the results of the present study as the findings indicated positive correlations between using games to teach, to present or to recollect the vocabulary and improvement in learning.

There were also studies on the effects of teaching vocabulary or language skills through games on the attitudes or motivation within kindergarten context (Asfuroğlu, 2013), primary school context (Fırat, 2007; Griva, Semoglou & Geladari, 2010; Wang, Shang & Briody, 2011), secondary school context (Gülsoy, 2013; Jalali & Dousti, 2012; Özkiraz, 2015; Şenol, 2007) and adults (Dervişoğulları, 2008; Şenergüç, 2007). The findings of the studies showed that games were useful to motivate learners and to create positive attitudes. Results of the present study also showed that learners can learn best when they are motivated, excited and having fun. Playing games in teaching and learning vocabulary can adequately supply the need for motivation, excitement and fun. Teaching and learning new vocabulary items and repeating them are necessary for productive and receptive skills. When students feel themselves relaxed, the effective filters of the learners are lowered so they focus on the activity and can do their best. Games help to supply an enjoyable and exciting atmosphere while lowering anxiety. While playing games, learners need to communicate and cooperate so it can be said that games are useful to develop social skills, as well. The learners have responsibilities while playing games and this helps them to be responsible individuals while learning the language. Games are good sources of significant repetition and context. Therefore, regarding the results of the study, the following pedagogical implications might be suggested:

- Considering the age, more game activities should be arranged for the young learners.
- The games should be interesting, motivating and exciting. Otherwise they don't draw learners' attention and this can cause reluctance.
- The time and the activities should be planned very well. The problem of noise should be controlled.
- The games can be used as a source of fun in the lessons. However, educational value of the games shouldn't be ignored. The games should be a part of course designs not the course itself.
- Games should be a part of teaching for the teenagers, as well considering their age, likes and dislikes.

It may also be useful to add some suggestions for further studies. In this study, the 4th and the 7th grade students were the participants. Therefore, the effects of using games can be explored at high school or tertiary level. Moreover, while vocabulary recognition was the main focus of this study, vocabulary production can be investigated in detail within further studies.

### **Ethics Approval**

I declare that the research was conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. There is no conflict of interest in the research. The study was approved by Social and Humanities Research and Publication Ethics Committee of Necmettin Erbakan University with 2020/19. The authors received no financial support for the authorship, research, and/or publication of this article.

## References

- Ajibade, Y.& Ndububa, K. (2008). Effects of word games, culturally relevant songs, and stories on students' motivation in a Nigerian English language class. *TESL Canada Journal*, 25(2), 27-48. Retrieved from <https://eric.ed.gov/?id=EJ806790>
- Allen, V. F. (1983). *Techniques in teaching vocabulary*. Oxford University Press
- Asfuroğlu, S. (2013). The attitudes of very young learners towards the use of games in language classes. (Master's thesis, Çağ University, Mersin, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Ashraf, H., Motlagh, F. G. , Salami, M. (2014). The impact of online games on learning English vocabulary by Iranian (low intermediate) efl learners. *Procedia - Social and Behavioral Sciences*, 98, 286-291. doi:10.1016/j.sbspro.2014.03.418
- Aslanabadi, H. (2013). The effect of games on improvement of Iranian EFL vocabulary knowledge in kindergartens. *International Review of Social Sciences and Humanities*, 6(1), 186-195. Retrieved from <http://docplayer.net/30175694-The-effect-of-games-on-improvement-of-iranian-efl-vocabulary-knowledge-in-kindergartens.html>
- Bakhsh, S. A. (2016). Using games as a tool in teaching vocabulary to young learners. *English Language Teaching*, 9(7), 120-128. Doi: 10.5539/elt.v9n7p120 Retrieved from <https://files.eric.ed.gov/fulltext/EJ1101751.pdf>
- Blachowicz, C. & Fisher, P. J. (2015). *Teaching vocabulary in all classrooms (5th Edition)*. Pearson Education.
- Cameron, L. (2002). *Teaching language to young learners*. Cambridge University Press.
- Carter, R. (1998). *Vocabulary: applied linguistic perspectives (2nd edition)*. London, UK: Routledge.
- Chen, I.-J.(2005). Using games to promote communicative skills in language learning. *The Internet TESL Journal*, 11(2). Retrieved from <http://iteslj.org/Techniques/Chen Games.html>
- Chou, M. (2012). Assessing English vocabulary and enhancing young English as a Foreign Language (EFL) learners' motivation through games, songs, and stories. *International Journal of Primary, Elementary and Early Years Education*, 42(3). Retrieved from <https://www.tandfonline.com/doi/full/10.1080/03004279.2012.680899?scroll=top&need>
- Cimcim, E. (2008). Teaching English to primary school students through games. (Master's thesis, Selcuk University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Coady, J., & Huckin, T. (1997). *Second language vocabulary acquisition: a rational for pedagogy*. Cambridge: Cambridge University Press.
- Çiftçi, Ş. S. (2010). The effect of language games on learning irregular past tense verbs: a study with 9th grade Turkish students. (Master's thesis, Eskişehir Anadolu University, Eskişehir, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Decarrico, J. S. (2001). *Vocabulary learning and teaching*. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language (3rd ed.)* (p. 285). Boston: Heinle & Heinle. Retrieved from <https://tr.scribd.com/document/145622949/Vocabulary-Learning-and-Teaching>

- Derakhslan, A. & Khatir, E. D. (2015). The effects of using games on English vocabulary learning. *Journal of Applied Linguistics and Language Research* 2(3), 39-47. Retrieved from <https://pdfs.semanticscholar.org/774c/2cae6b8aefbe2fdcf88c151d0441bebbba857.pdf>
- Dervişoğulları, N.(2008). Yabancı dil olarak Türkçe öğretilen sınıflarda oyunlarla sözcük öğretimi / word teaching through playing games in Turkish teaching classes. (Master's thesis, Ankara University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Ersöz, A. (2000). Six games for the efl/esl classroom. *The Internet TESL Journal*, 6(6). Retrieved from <http://iteslj.org/Lessons/Ersoz-Games.html>
- Fırat, M. (2007). Yabancı dil öğretiminde oyunun kullanımı. (Master's thesis, Atatürk Üniversitesi, Erzurum, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Griva, E.& Semoglou, K.& Geladari, A. (2010). Early foreign language learning: implementation of a project in a game –based context. *Procedia Social and Behavioral Sciences* 2 (2010), 3700–3705. Doi: 10.1016/j.sbspro.2010.03.575. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1877042810006154>
- Gülsoy, H.(2013). Teaching vocabulary to sixth graders through games. (Master's thesis, Çığ University, Mersin, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Hadfield, J.(1990). *Intermediate communication games*. Hong Kong: Thomas Nelson and Sons Ltd.
- Jalali, S. & Dousti, M. (2012). Vocabulary and grammar gain through computer educational games. *GEMA Online™ Journal of Language Studies*, 12(4), 1077-1088. Retrieved from <http://ejournal.ukm.my/gema/article/view/1570/1357>
- Kim, L. S. (1995). Creative games for the language class. *International conference of the Malaysian English Language Teachers's Association on May 24-27, 1993, in Kuala Lumpur*. 33(1), 35. Retrieved from <https://tr.scribd.com/document/99650330/Vol-33-No-1-LEE-SU-KIM>
- Lee, W. R.(1965). *Language teaching games and contests*. Oxford University Press, London.
- Lengeling, M. M. & Malarcher, C. (1997). Index cards: a natural resource for teachers. 35(4), *October - December 1997 Page 42*. Retrieved from <https://eric.ed.gov/?id=EJ595064>
- Masri, D. A. A. & Najjar, M.M. Al. (2014). The effect of using word games on primary stage students achievement in English language vocabulary in Jordan. *American International Journal of Contemporary Research*, 4(9), 144-152. Retrieved from [http://www.ajcernet.com/journals/Vol\\_4\\_No\\_9\\_September\\_2014/17.pdf](http://www.ajcernet.com/journals/Vol_4_No_9_September_2014/17.pdf)
- McCarthy, M. (1990). *Vocabulary*. Oxford: Oxford University Press.
- Özkiraz, K. (2015). The role of games in teaching vocabulary to fifth graders. (Master's thesis, Çığ University, Mersin, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Öztürk, P. (2004). An experimental study on the effect of games on young adults' success in learning English grammar / oyunların İngilizce dilbilgisi öğretiminde yetişkinler üzerindeki etkisi üzerine deneysel bir çalışma. Çanakkale Onsekiz Mart Üniversitesi, Çanakkale.



- Pirrie, L. A. (2017). Teaching and learning vocabulary through games and translation in the EFL classroom: a case study. (Master's thesis, Universitat De Les Illes Balears, Spain). Retrieved from [http://dspace.uib.es/xmlui/bitstream/handle/11201/147071/tfm\\_201617\\_MFPR\\_lap572\\_1047.pdf?sequence=1](http://dspace.uib.es/xmlui/bitstream/handle/11201/147071/tfm_201617_MFPR_lap572_1047.pdf?sequence=1)
- Reilly, V. & Ward, S. M. (2000). *Very young learners*. Oxford University Press.
- Richards, J. C. (1985). *The context of language teaching*. United States of America: Cambridge University Press.
- Rixon, S. (1981). *How to use games in language teaching*. London: Macmillan Publisher Ltd.
- Scrivener, J. (1994). *The teacher development series learning teaching*. Oxford: Macmillan Publishers Limited.
- Şenergüç, G. (2007). How games work on adults in teaching vocabulary / yetişkinlere kelime öğretiminde oyunların kullanımı. (Master's thesis, Selcuk University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Şenol, M. (2007). Teaching vocabulary to secondary school students through games. (Master's thesis, Selcuk University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Thornbury, S. (2004). *How to teach vocabulary*. Essex: Pearson Education Limited.
- Tuan, L. T. (2012). Vocabulary recollection through games. *Theory and Practice in Language Studies*, 2(2), 257-264. Doi:10.4304/tpis.2.2.257-264. Retrieved from <http://www.academypublication.com/issues/past/tpis/vol02/02/08.pdf>
- Ur, P. (1996). *A course in language teaching practice and theory*. Cambridge: Cambridge University Press.
- Ur, P. (2012). *A course in language teaching practice and theory*. Cambridge: Cambridge University Press.
- Wallace, M. J. (1982). *Teaching vocabulary*. London: Heinemann Educational Books Ltd. Cambridge University Press.
- Wang, Y.- J. & Shang, H.-F. & Briody, P. (2011). Investigating the impact of using games in teaching children English. *International Journal of Learning and Development*, 1(1), 127-141. doi:10.5296/ijld.v1i1.1118.
- Wright, A. & Betteridge, D. & Buckby, M. (1984). *Games for language learning*. Cambridge: Cambridge University Press. Retrieved from <https://tr.scribd.com/doc/48611304/Games-for-Language-Learning>
- Yip, F.W. M. & Kwan, A. C.M. (2007). Online vocabulary games as a tool for teaching and learning English vocabulary. *Educational Media International*, 43 (3) : Media innovations in education: input and outcome in the new society, 233-249. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/09523980600641445>

#### Online References

<https://en.oxforddictionaries.com> as retrieved on March,13, 2018.

Received: March 31, 2020

Accepted: June 1, 2020

<http://dergipark.org.tr/rep>

e-ISSN: 2602-3733

Copyright © 2020

June 2020 • 4(1) • 54-72

*Research Article*

## The Effect of Cooperative Learning in Education: A Meta-Analysis Study

Füsün Gülderen Alacapınar<sup>1</sup>

*Necmettin Erbakan University*

Hatice Uysal<sup>2</sup>

*Sefaköy Mehmet Tosun Imam Hatip*

*Secondary School*

### Abstract

The present study examines through meta-analysis method academic theses of experimental model and with pre/post-test control groups related to cooperative learning conducted in the period 2018-2020 and accepted by universities in Turkey. The meta-analysis covers 5 doctoral dissertations and 26 post-graduate theses that are commensurate with the problematic of the study and have sufficient statistical data. Operational effectiveness meta-analysis was used in the study. The analysis covered the effects of cooperative learning method on students' scores in cognitive (achievement), affective (attitude) and psychomotor skills. Meta-analysis conducted shows that the effect size of cooperative learning related to students' cognitive domain scores is 1.213, 0.504 in affective domain, and 0.714 in psychomotor domain. These values obtained from meta-analysis suggest that the effect size is large when cognitive domain is concerned and medium in the case of affective domain. According to findings, the significance level of the effect of cooperative learning in class teaching is large when cognitive domain scores are concerned and medium in the case of affective domain. The effect is not significant in the case of psychomotor domain.

### Key Words

Affective domain • Cognitive domain • Cooperative learning • Effect value • Psychomotor domain

<sup>1</sup> **Correspondance to:** Füsün Gülderen Alacapınar (PhD), Department of Curriculum and Instruction, Necmettin Erbakan University, Faculty of Ahmet Kelesoglu Education, Konya, Turkey. E-mail: fusunmireli@yahoo.com  
**ORCID:** 0000-0001-7515-3851

<sup>2</sup> Teacher, Sefaköy Mehmet Tosun Imam Hatip Secondary School, Konya, Turkey. E-mail: h.uysalll@hotmail.com **ORCID:** 0000-0003-3935-5899

**Citation:** Alacapınar, F. G. & Uysal, H. (2020). Do the effect of cooperative learning in education: A meta-analysis study. *Research on Education and Psychology (REP)*, 4(1), 54-72.

All types of learning are based on the interaction of individuals (Jenkins 1981, cited by Özer, 2005). According to Vygotsky (1978) an individual's learning requires a social environment. Individual's presence in social interaction with both experienced peers and adults in learning process is an important factor in learning (Baş & Beyhan, 2016). Student-student interaction in education is too important to be omitted or just left to chances (Yılmaz, 2001). There are three different ways for students to interact with each other at school: (1) they can compete with any who tries to do better than other students in the class, (2) students can work individually in line with certain criteria, (3) students can cooperate by undertaking the responsibility of both their own and others' learning. While traditional teaching strongly encourages students to go individually by competing with each other, studies on how students learn best suggest that this is not the case (Johnson & Johnson, 1986). Hence cooperative learning is a way of learning that deserves attention in efforts to ensure effectiveness and achievement in learning (Özer, 2005).

### **Cooperative Learning**

Developed by John Dewey, Vygotsky and Slavin, cooperative learning (Sönmez, 2019) is one of the most common and yielding areas of theory, research and practice in education (Johnson, Johnson, & Stanne, 2000). Slavin (1980) describes cooperative learning as classroom techniques where students work on learning activities in small groups and gain reward or recognition according to the performance of groups. According to Johnson and Johnson (2009) cooperative learning is using of small groups for teaching purposes where groups work together to maximise the learning of themselves and each other. For Jacobs, Lee, and Ng (1997, p.1) cooperative learning is *“organised and managed groupwork in which students work cooperatively in small groups to achieve academic as well as affective and social goals.”*

Not all groups coming together can be called as cooperative. For a group in learning to be cooperative, educationists must know the different modes of use of cooperative learning and fundamental elements to be carefully structured in each cooperative activity (Johnson & Johnson, 2009). For example while conventional learning groups have homogeneous structure, cooperative groups are mixed with respect to talent, gender, race, personal and social characteristics. While there is a leader directing the group in conventional learning leadership is shared within the group in cooperative learning (Özer, 2005). In the conventional learning group, although students have not rejected working together as in the fake learning group they still believe that their assessment will be made on individual basis (Boyraz, 2019). In other words, while individual responsibility of students is the essence in conventional groups it is group responsibility in cooperative groups. Further, while social skills are not attached much importance in conventional learning groups, there is direct teaching of social skills like sharing, communication, leadership and honesty in cooperative learning groups (Özer, 2005).

In traditional learning groups assignments are designed so as to assess and award students not as group members but individuals. In traditional learning groups industrious and responsible students perform better when they work alone. In cooperative learning groups, on the other hand, students work together with their group mates to achieve common objectives and help each other's learning. In this learning group all students exhibit higher academic performance than in the case they work individually (Johnson & Johnson, 2009).

Since cooperative learning provides students opportunities to work in cooperation instead of competing with their peers, it is clear that they will psychologically feel better. In cooperative groups it will be easier for students to build friendships. As relations develop and get better there will also be improvements in productivity, morale,

sense of responsibility and determinedness to tackle difficult duties (Johnson & Johnson, 2009). Students get better scores in cooperative learning compared to competitive or individual learning (Shimazoe & Aldrich, 2010). In cooperative learning students learn to respect and be tolerant to opinions of others (Senemoğlu, 2015). Also, cooperative learning enables each student to take an active part in learning. Active students do not display disturbing behaviour or tend to move out of their assignment (Johnson & Johnson, 2009).

Despite its proven benefits, teachers using this method in their classes frequently meet the resistance of their students. For example, starter students complain about their lagging-behind group mates while poor performers' complaint is that they are ignored by others in their group (Felder & Brent, 2007). In their study, Macit and Aslaner (2019) say that teachers may have negative approaches to this method for its disadvantages including time constraints, students at too different levels, method's unfitting nature for some topics and problems emerging during group formation.

Widely used cooperative learning techniques include problem sets, laboratories and projects, jigsaw, peer editing and peer-led team learning (Felder & Brent, 2007). Differences in techniques stem from the structure of activities carried out during courses, physical characteristics of the classroom, and the nature of the course and topic (Hedeen, 2003). According to Johnson and Johnson (2009) the performance of any small group varies with respect to how well it is composed no matter which technique is used. Teachers must be careful in planning and class organization in the context of cooperative learning. For the full implementation of this approach assignments and awards must be carefully selected and structured (Yıldız, 1999).

There are five major elements that are required in cooperation based learning groups:

- **Positive Interdependence:** It means the achievement of individuals in the group depends on each other's achievement (Johnson & Johnson, 2009). The presence of a hard working student in the group contributes to the performance of others (Senemoğlu, 2015). The question "*What must we do?*" is frequently utilized in cooperative learning groups (Yıldız, 1999). Here, students are aware that when their group mates attain their targets so will they (Arslan & Yanpar, 2006).
- **Individual Accountability:** It involves the assessment of the performance of each student individually. The objective of cooperation-based learning groups is to make each group member a stranger individual (Johnson & Johnson, 2009).
- **Face-to-Face Promotive Interaction:** As face-to-face interaction among group members grows up, there are also improvements in accountability to peers, peers' ability to influence each other's reasoning and outcomes, social modelling, social support and inter-personal awards (Johnson & Johnson, 2009). Vygotsky (1978) maintains that oral communication between students contributes significantly to student skills in self-expression and internalization of some ideas that are difficult to learn. Further, some cognitive activities and inter-personal dynamics emerge only when students are included so as to support each other. Examples include explaining orally how problems are to be solved, discussing the nature of concepts learned and teaching what has been learned to classmates (Johnson & Johnson, 2009). Small groups from two to four persons must be preferred for an effective interaction (Uslu, 2019).
- **Social Skills:** The student undertakes the responsibility to teach his/her friends what he/she has learned. The student's social side too will develop since he/she will be communicating with friends (Akgül, 2020).

- **Group Processing:** The process is evaluated when group members discuss to what extent objectives have been met and maintain their effective working relations. When interpersonal problems emerge within groups, students must evaluate the process together, identify problems and seek ways of solution (Johnson & Johnson, 2009).

Examining some recent studies on cooperative learning that can be found in domestic literature we find that this method has its significant impact on student achievement. Ergün (2019), for example, finds that computer-supported cooperative learning is effective on student achievement. Similarly Avcı (2018) finds cooperative learning as significantly effective on students' achievement in sciences course compared to other teaching methods. A meta-analysis work by İleri (2019) concluded that cooperative learning approach has it large effect on boosting academic performance in sciences according to findings obtained from 103 studies. In a study to test the effect of cooperative learning on students' performance in geography course Koçyiğit (2018) found that performance scores of experimental group students are significantly higher than control group students who learned by conventional methods. The study also found that cooperative learning affected students' attitude positively. In another study Çalışkan (2018) found that cooperative learning method significantly improved the achievement of 9<sup>th</sup> grade students in mathematics. It was also observed that experimental group students showed improvements in both their class participation and problems solving skills.

### **Objective of the Study**

One can find in the relevant literature many advanced studies on cooperative learning method. However, knowing that cooperative learning can significantly improve student performance when it is correctly applied (i.e. relative to competitive and individual learning) does not mean that it can have its effects in all situations and equally (Johnson, Johnson, & Stanne, 2010). Thus, meta-analysis is important in giving an overall picture concerning an identified issue.

The basic objective of the present study is to examine the outcomes of experimental theses on cooperative learning technique prepared in the country by using meta-analysis and to see the comparative effects of cooperative learning and other existing teaching methods on student's cognitive achievement/gain, attitude and retention scores. It was sought, through this meta-analysis, to bring together studies on collective learning made within the last three years and to reach a general conclusion.

### **Problem Statement**

Does collaborative learning method significantly affect students' cognitive, affective and psychomotor domain scores?

### **Sub-Problems**

- 1- Does the collaborative learning method significantly affect students' cognitive domain scores?
- 2- Does collaborative learning method significantly affect students' affective domain scores?
- 3- Does the collaborative learning method significantly affect students' psychomotor domain scores?

## Method

The method known as meta-analysis is used in this study. First defined by Glass (1976), the term meta-analysis is defined by Dinçer (2014) as follows: “grouping similar studies on a specific issue, theme or research under some identified criteria and interpreting associated quantitative findings by combining them.” In other words, outcomes obtained from different studies are combined to reach an overall conclusion (Dinçer, 2014). Stages in meta-analysis are as follows: Identification of the state of the problem; setting research criteria; deciding on how to select studies; deciding on the effect size to be used; selecting appropriate statistical analyses; identifying variables falling into the domain of the study if any; and finally reporting (Şen & Akbaş, 2016).

### Data Collection Process

Theses covered by the study for analysis consist of studies with experimental design and pre/post-test control groups investigating the impact of cooperative learning in education. The surveying of postgraduate theses asserted in Turkey was conducted on the internet site of YÖK National Thesis Centre in Turkish language (<https://tez.yok.gov.tr/UlusalTezMerkezi/>). The time interval of theses covered for meta-analysis extends from the present and two years back from now. Of theses reached, 31 were included in the study.

### Data Analysis

The Treatment Effectiveness method of meta-analysis was used in the statistical analysis of data. This method envisages the division of the difference between experimental and control group averages by total standard deviation. This method is used to compare effect sizes by transforming independent variable data used in more than one study into a common measurement unit (Demiray, 2013). Effect size is a standard measurement value used in determining the force and direction of relationship in a given study (Başol, 2009). In this study “Hedge’s  $g$ ” was used in calculating effect size and results obtained were interpreted according to Cohen’s  $d$ . Cohen (1992) which considers the interval 0.20 – 0.50 as “small”, 0.50 – 0.80 as “medium” and 0.80 and over as “large”. The level of significance in this study is 95%.

After calculating effect sizes for all studies their homogeneity is tested. When it is found that intra-group, inter-group and total heterogeneity values obtained when fixed effects model is applied in meta-analysis are higher than critical values, effect sizes were re-calculated by using the random effects model.

## Findings

Below are some comments on findings obtained from the analysis of data.

### Findings Related to the First Sub-Problem

The first sub-problem of the research is to look for an answer to the question, “Does the collaborative learning method significantly affect the cognitive domain scores of the students?” Homogenous distribution values, average effect sizes and confidence intervals of 51 outcomes in total related to the effect of collaborative learning method on cognitive domain in 28 academic theses covered by meta-analysis are given below in Table 1.

Table 1

*Homogeneous and Heterogeneous Distribution Values, Average Effect Sizes and Confidence Intervals of Studies Covered by Meta-Analysis on Cognitive Domain Scores of Students in Cooperative Learning Method with Respect to Effect Models*

Model Type	Average effect size (ES)	Degree of freedom (df)	Homogeneity value (Q)	Chi square table value	Standard error (SE)	$I^2$	95% Confidence interval for effect size	
							Lower limit	Upper limit
<i>Fixed Effects Model</i>	1.049	50	436.723	67.5048	0.043	88.551	0.965	1.132
<i>Random Effects Model</i>	1.213	50	407.723	67.5048	0.127		0.965	1.462

According to Table 1, the effect of cooperative learning used in teaching environment on student success can be said to be positive with the effect size value of 1.049 in the fixed effects model. Homogeneity test yields statistical value Q as 436.723. In chi-square table, the critical value is considered as about 67.5048 at significance level of 95% and with degree of freedom of 50. Since 436.723, the statistical value Q calculated in this study is greater than 67.5048 as critical value, it can be said that the distribution of effect sizes has a **heterogeneous** nature. Having 88.551 as calculated  $I^2$  may be accepted as showing that effect size at heterogeneous level is high.

Since the distribution in the study has heterogeneous character, it was sought to avoid illusions deriving from this heterogeneous character of the sample by conducting analyses in line with random effects model (Çelebi & Yıldız, 2002). On this basis, the effectiveness of teaching with or without using cooperative learning approach is assessed according to random effects model. Meta-analysis of 51 data according to random effects model gives the effect size as ES= 1.213 with standard error of 0.127 in 95% confidence interval with upper and lower limits as 1.462 and 0.965, respectively. It can be said that effect size value is in the category “large” according to Cohen’s (1992) classification, which suggests that the use of cooperative learning in class practices have its positive effect on academic performance. These suggest that average success scores in groups engaged in cooperative learning are significantly higher than other groups without cooperative learning learning. It can be argued that cooperative learning method significantly affects achievements at this level. Findings related to effect size of studies are given in Table 2 and Figure 1.

Table 2

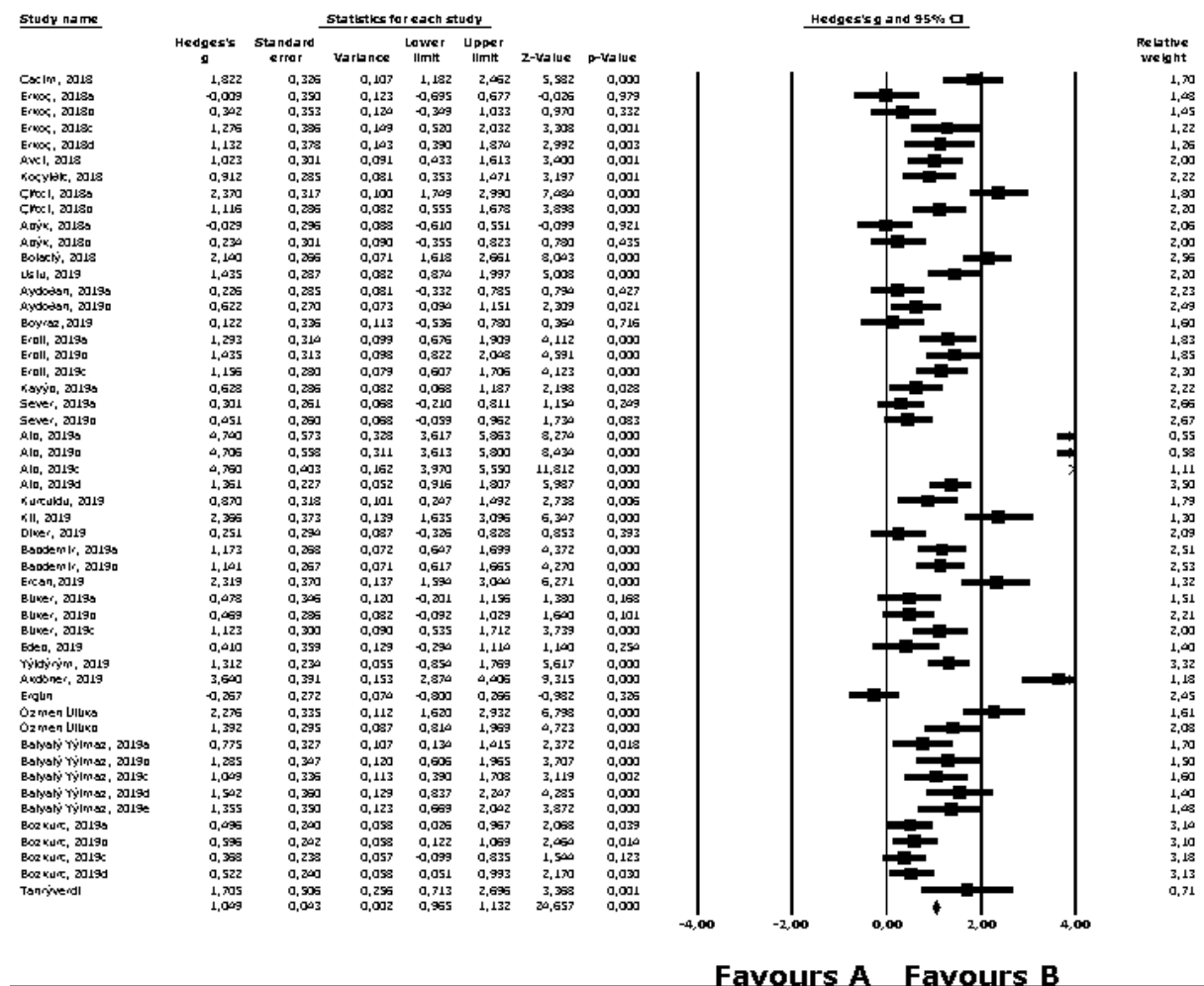
*Distribution of Effect Sizes in Studies Covered by Meta-Analysis on Cognitive Domain Scores of Students in Cooperative Learning Method According to the Classification Made by Cohen*

Effect Size Level	Frequency	Percentage
<i>Small</i>	15	29.411
<i>Medium</i>	5	9.803
<i>Large</i>	31	60.784
<i>Total</i>	51	100



When table 2 is examined, it is seen that according to Cohen (1992), 31 studies have a large effect size, 5 studies have a medium effect size and 15 studies have a small effect size.

Figure 1. Effect Size Values Related to Cognitive Domain

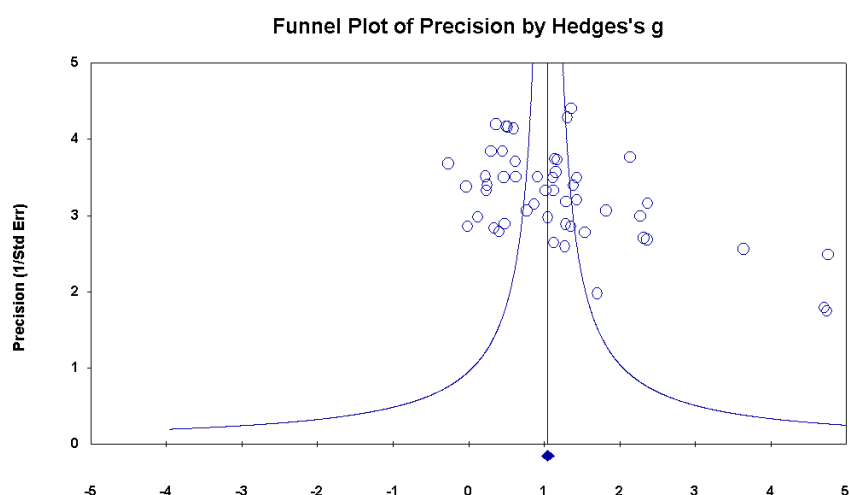


In Figure 1 lines on both sides of squares show the lower and upper limits of effect sizes in 95% confidence interval while the rhomb shows the overall effect size of studies. Taking a look we see -0.009 as the smallest and 4.760 as the widest effect size.

It can be said that weight percentage given on the right of effect size values represents numerically the effect share of each study on meta-analysis outcome. Homogeneity/heterogeneity of studies covered by analysis and any bias can be shown with a funnel chart. Figure 2 gives the distribution of effect sizes of studies according to Hedges's as funnel chart (Funnel plot of precision).



Figure 2. Distribution of Effect Sizes of Studies According to Hedges's g (Funnel Chart)



The funnel in the graphic is delimited by a  $\pm$  slope. According to this graphic some studies remain out of the slope curve which makes it possible to say that the group is heterogeneous. It may not yield sound results if assessment is made solely by taking a look at the funnel graphic. More reliable outcome can be obtained if Q or p values are also considered (Dinçer, 2014).

### Findings Related to the Second Sub-problem

The second sub-problem of the research is, to look for an answer to the question, “Does the collaborative learning method significantly affect the affective domain scores of the students?” Homogenous distribution values, average effect sizes and confidence intervals of 33 outcomes in total covered by meta-analysis are given in Table 3 below according to statistical models related to students’ attitude scores.

Table 3

*Homogeneous and Heterogeneous Distribution Values, Average Effect Sizes and Confidence Intervals of Studies on Affective Domain Scores of Students Included in Meta-Analysis according to Effect Models*

Model Type	Average effect size (ES)	Degree of freedom (df)	Homogeneity value (Q)	Chi square table value	Standard error (SE)	$I^2$	95% Confidence interval for effect size	
							Lower limit	Upper limit
Fixed Effects Model	0.493	32	99.125	43.7729	0.047	67.717	0.402	0.585
Random Effects Model	0.504	32	99.125	43.7729	0.083		0.341	0.666

According to Table 3, the effect of cooperative learning used in teaching environment on students’ affective domain scores can be said to be positive with the effect size value of 0.493 in the fixed effects model.

Homogeneity test yields statistical value Q as 99.125. In chi-square table, the critical value is considered as about 43.7729 at significance level of 95% and with degree of freedom of 32. Since 99.125, the statistical value Q calculated in this study is greater than 43.7729 as critical value, it can be said that the distribution of effect sizes has a **heterogeneous** nature. Having 67.717 as calculated  $I^2$  may be accepted as showing that effect size at heterogeneous level is high.

Since the distribution in the study has heterogeneous character, it was sought to avoid illusions deriving from this heterogeneous character of the sample by conducting analyses in line with **random effects model** (Çelebi Yıldız, 2002). On this basis, the effectiveness of teaching with or without cooperative learning method is compared according to random effects model. According to random effects model, meta-analysis of data from 33 studies gives the effect size as  $ES= 0.504$  with standard error of 0.083 in 95% confidence interval with upper and lower limits as 0.666 and 0.341, respectively. It can be said that effect size value is in medium interval according to Cohen's (1992) classification which means that use of cooperative learning in class teaching has its positive effect at medium level significance on affective domain scores. In other words, cooperative learning affects achievements in terms of affective domain scores at medium level of significance. Findings related to effect size of studies are given in Table 4 and Figure 3.

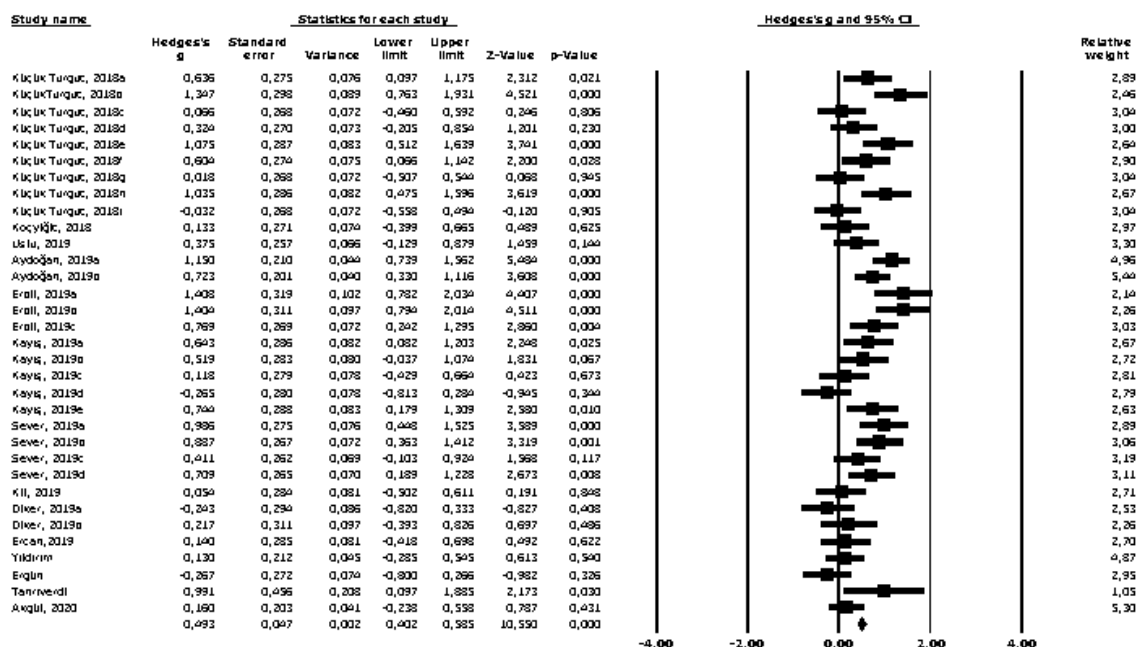
Table 4

*Distribution of Effect Sizes in Studies Covered by Meta-Analysis on Affective Domain Scores of Students in Cooperative Learning Method According to the Classification Made by Cohen*

Effect size level	Frequency	Percentage
Small	16	48.484
Medium	8	24.242
Large	9	27.272
Total	33	100

When table 4 is examined, it is seen that according to Cohen (1992), 9 studies have a large effect size, 8 studies have a medium effect size and 16 studies have a small effect size.

Figure 3. Effect Size Values Related to Affective Domain



In Figure 3 lines on both sides of squares show the lower and upper limits of effect sizes in 95% confidence interval while the rhomb shows the overall effect size of studies. Taking a look we see 0.018 as the smallest and 1.408 as the widest effect size.

Figure 4 gives the distribution of effect sizes of studies according to Hedges’s as funnel chart (Funnel plot of precision).

Figure 4. Distribution of Effect Sizes of Studies According to Hedges’s g (Funnel Chart)

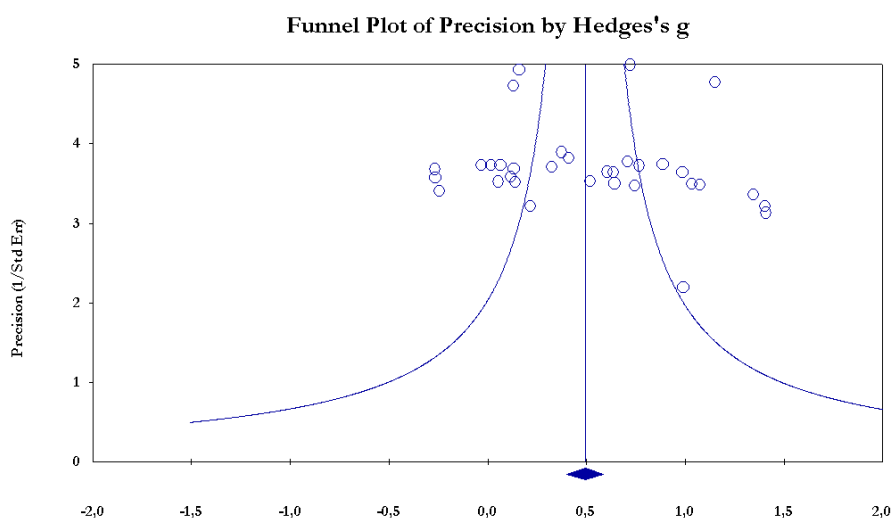


Figure 4 gives the funnel chart showing the distribution of effect size in studies. The funnel in the graphic is delimited by a  $\pm$  slope. According to this graphic some studies remain out of the slope curve which makes it possible to say that the group is heterogeneous. It may not yield sound results if assessment is made solely by taking a look at the funnel graphic. More reliable outcome can be obtained if Q or p values are also considered (Dinçer, 2014, p. 81).

**Findings Related to the Third Sub-Problem**

The third sub-problem of the research is to look for an answer to the question, “Does the collaborative learning method significantly affect the psychomotor domain scores of the students?” Homogenous distribution values, average effect sizes and confidence intervals of 4 outcomes in total related to the effect of collaborative learning method on psychomotor domain in 28 academic theses covered by meta-analysis are given below in Table 5.

Table 5

*Homogeneous and Heterogeneous Distribution Values, Average Effect Sizes and Confidence Intervals of Studies on Psychomotor Domain Scores of Students Included in Meta-Analysis according to Effect Models*

Model Type	Average effect size (ES)	Degree of freedom (df)	Homogeneity value (Q)	Chi square table value	Standard error (SE)	I <sup>2</sup>	95% Confidence interval for effect size	
							Lower limit	Upper limit
Fixed Effects Model	0.714	3	5.702	7.81473	0.189	47.383	0.345	1.084
Random Effects Model	0.678	3	5.702	7.81473	0.272		0.145	1.212

According to Table 5, the effect of cooperative learning used in teaching environment on students' psychomotor domain scores can be said to be positive with the effect size value of 0.714 in the fixed effects model. Homogeneity test yields statistical value Q as 5.702. In chi-square table, the critical value is considered as about 7.81473 at significance level of 95% and with degree of freedom of 3. Since 5.702, the statistical value Q calculated in this study is greater than 7.81473 as critical value, it can be said that the distribution of effect sizes has a homogenous nature. According to fixed effects model, meta-analysis of data from 4 studies gives the effect size as ES= 0.714 with standard error of 0.714 in 95% confidence interval with upper and lower limits as 1.084 and 0.345, respectively. With these results it can be said that psychomotor domain scores of groups where cooperative learning is applied is not significantly higher than scores of groups where cooperative learning is not applied. Cooperative learning has no significant effect on students' psychomotor domain scores. Findings related to effect size of studies are given in Table 6 and Figure 5.

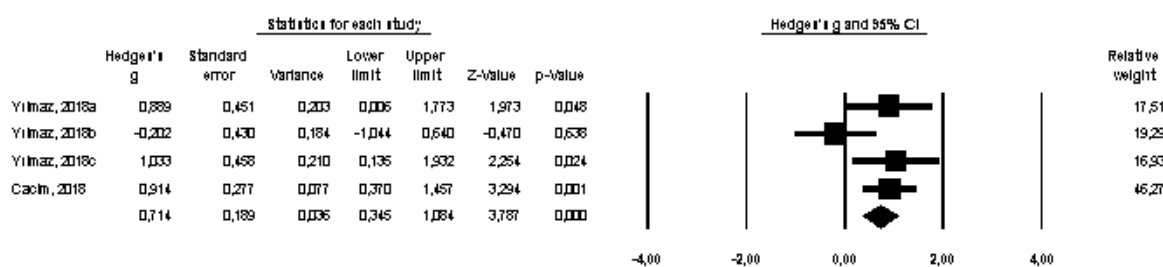
Table 6

*Distribution of Effect Sizes in Studies Covered by Meta-Analysis on Psychomotor Domain Scores of Students in Cooperative Learning Method According to the Classification Made by Cohen*

Effect Size Model	Frequency	Percentage
Small	1	25
Medium	-	-
Large	3	75
Total	4	100

When table 6 is examined, it is seen that according to Cohen (1992), 3 studies have a large effect size and 1 study have a small effect size.

Figure 5. Effect Size Values Related to Psychomotor Domain Scores



In Figure 5 lines on both sides of squares show the lower and upper limits of effect sizes in 95% confidence interval while the rhomb shows the overall effect size of studies. Taking a look we see -0.202 as the smallest and 1.033 as the widest effect size.

Figure 6 gives the distribution of effect sizes of studies according to Hedges's as funnel chart (Funnel plot of precision).

Figure 6. Distribution of Effect Sizes of Studies According to Hedges's g (Funnel Chart)

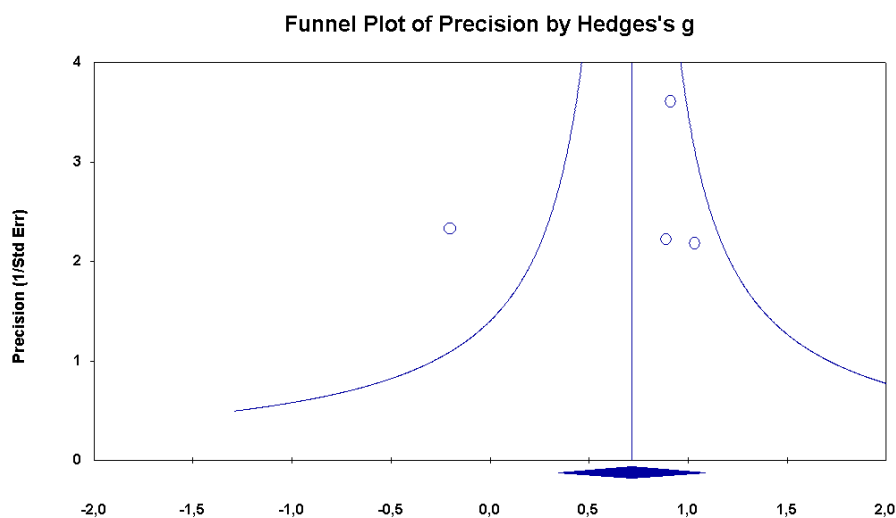


Figure 6 gives the funnel chart showing the distribution of effect size in studies. The funnel in the graphic is delimited by a  $\pm$  slope. According to this graphic some studies remain out of the slope curve which makes it possible to say that the group is heterogeneous. It may not yield sound results if assessment is made solely by taking a look at the funnel graphic. More reliable outcome can be obtained if Q or p values are also considered (Dinçer, 2014).

### Discussion

According to data from 5 doctoral and 25 post-graduate theses conducted in Turkey cooperative learning has its positive effect on scores in cognitive, affective and psychomotor domain skills. The level of effect calculated according to Cohen's (1992) classification is in the interval "large" with respect to cognitive domain scores. Many studies that can be found in literature show that cooperative learning has its significant effects on cognitive, affective and psychomotor domains. Many studies suggest that cooperative learning brings along higher performance relative to competitive or individual learning (Johnson et al., 2000). For example, meta-analysis by Johnson et. al. (2000) concluded that learning methods based on different forms of cooperative learning yielded higher performance relative to competitive and individual learning methods. Another meta-analysis work found that cooperative learning approach had its large effect in improving academic achievement in sciences (İleri, 2019). Bolatlı (2018) finds that cooperative learning environment significantly affects students' interest in the course and their active participation. As a result of this learning environment there were positive changes in teacher-student and student-student communication. Running parallel to these, Kurtuldu (2019) concluded that cooperative learning is more effective in improving the academic achievement of students relative to what teachers apply in teaching as their own methods. Aydoğan (2019) found that high-level cognitive learning of experimental group students in simulation-supported cooperative learning is higher than the control group. Outcomes of all these studies show that it is important to ensure teachers' awareness about the benefits of cooperative learning and have teacher-centred teaching methods replaced by student-centred teaching methods (Zakaria, Chin, & Daud, 2010).

The present study found that the effect on affective domain is at medium level according to the levels of effect classified by Cohen (1992). Arslan and Yanpar (2006) found that cooperative learning is effective in

improving student achievement and there are positive changes in students' attitude that can be attributed to this method. In another study [Kayış \(2019\)](#) concludes that cooperative learning based teaching affects students' social skills at significant level. The study finds that social skills scores of experimental group students are significantly higher than control group students. The study by [Ergün \(2019\)](#) finds that student's level of academic achievement is affected by computer-supported cooperative learning method. Meanwhile, it is also found that this method has no significant effect on students' attitude scores. Similarly, [Akgül \(2020\)](#) finds that cooperative learning has no effect on affective domain scores. On the other hand, [Zakaria, Chin and Daud \(2010\)](#) say cooperative learning methods improve students' performance in mathematics and their attitude towards this course. Different outcomes found in the context of attitude scores can be attributed to the possibility that attitude is too abstract and subjective to spot changes taking place in a short period of time ([Zakaria et al., 2010](#)).

The present study found that there was no effect on psychomotor domain scores according to the levels of effect classified by [Cohen \(1992\)](#). In a study examining the effect of cooperative learning on psychomotor domain, [Cacim \(2018\)](#) found that cooperative learning has its significant effect on students' psychomotor domain scores compared to conventional learning. The researcher explains this outcome by various factors including more enjoyable handling of courses in the experimental group, limited intervention by the teacher, student's freedom to act with his/her own speed and being in a pleasant completion with classmates. Contrary to this finding, [Yılmaz \(2018\)](#) concludes that cooperative learning has no significant effect on students' psychomotor skills.

On the basis of outcomes obtained the following suggestions can be made for researchers and practitioners:

- There may be further meta-analyses covering studies on cooperative learning conducted abroad.
- Work may be started for a new learning-teaching theory on the basis of outcomes from meta-analysis.
- The present study was on the effect of cooperative learning on students' cognitive, affective and psychomotor scores. Apart from these, there may be meta-analysis work covering other variables such as retention, branch, education level, etc.
- The present study is limited to three years. There may be meta-analysis of studies on cooperative learning selecting a wider time interval.
- The majority of studies on cooperative learning approach focus on secondary and high school levels. Researchers may extend these studies to primary schools as well.
- Teachers may use cooperative learning which is more effective than existing teaching programmes in terms of achievement and attitude more widely in their classes.
- There may be further studies to examine the effect of cooperative learning on psychomotor domain.

## References

References starting with the star symbol (\*) show the studies included in the meta-analysis.

- \*Akdöner, S. (2019). *Argümantasyon destekli işbirlikli öğrenme yönteminin genetiği değiştirilmiş organizma (GDO) konusunda uygulanmasının onuncu sınıf öğrencilerinin akademik başarılarına etkisinin incelenmesi* [Investigation of the effect of the application of the development of argumentation - supported cooperative learning methods on the genetics of a modified organization (GMO) on the academic achievements of the ten years students]. (Master's thesis, Çukurova Uludağ University, Adana, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Akgül, G. (2020). *Ortaokul altıncı sınıf sosyal bilgiler dersinde işbirlikli öğrenme yönteminin öğrencilerin yardımseverlik değerine ilişkin tutumlarına etkisi* [The effect of cooperative learning method on helpfulness value on students' attitudes teaching at middle school sixth grade social studies course]. (Master's thesis, Bursa Uludağ University, Bursa, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Alp, G. (2019). *Scratch programı ile web destekli işbirlikli öğrenme yönteminin ilkökul 5. sınıf öğrencilerinin kavramsal anlama düzeylerine ve eleştirel düşünme becerilerine etkisi* [The impact of Scratch program and web assisted cooperative learning method on the level of conceptual understanding and critical thinking skills of 5th grade students]. (Master's thesis, Bursa Uludağ University, Bursa, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Arslan, A., & Yanpar, T. (2006). Oluşturmacı (constructivist) yaklaşıma dayalı işbirliğine dayalı öğrenmenin ilköğretim sosyal bilgiler dersindeki etkileri [The effects of cooperative learning based on constructivist approach in primary social studies]. *Eurasian Journal of Educational Research*, 24, 22-32.
- \*Aşık, S. (2018). *The effects of paper-based and computer supported collaborative writing on the writing performances of pre-intermediate level preparatory students at Uludag University*. (Master's thesis, Gazi University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Aydoğan, A. (2019). *Simülasyon destekli işbirlikli öğretim yönteminin öğrencilerin akademik başarılarına ve fene yönelik tutumlarına etkisi: DNA ve genetik kod ünitesi* [Effect of cooperative teaching method supported by simulation on students' academic success and science attitudes: DNA and genetic code subject]. (Master's thesis, İnönü University, Malatya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Balyalı Yılmaz, S. (2019). *Turkish adult EFL learners' motivation, participation and performance in collaborative strategic reading classes*. (Master's thesis, Hacettepe University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Baş, G., & Beyhan, Ö. (2016). Sosyal-yapılandırmacı öğrenme ortamı tasarımının öğrenenlerin akademik başarılarına ve derse yönelik tutumlarına etkisi [Effect of social-constructivist learning environment design on learners' academic achievement and attitudes towards course]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi* [Mehmet Akif Ersoy University Journal of Education Faculty], 41, 137-162.
- \*Başdemir, H. (2019). *Öğrencilerin işbirlikli öğrenmesini ve yaratıcı düşünme becerilerini geliştirmek için çevrimiçi ansiklopedilerin kullanılması* [Using online encyclopedias to improve students' cooperative



- learning and creative thinking skills]. (Master's thesis, Çanakkale Onsekiz Mart University, Çanakkale, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Başol, G. (2009). Meta-analizin genel bir değerlendirmesi [A general assessment of meta-analysis]. *Sakarya Üniversitesi Eğitim Fakültesi Dergisi* [Sakarya University Journal of Education Faculty], 17(4), 345-360.
- \*Bolatl, Z. (2018). *Mobil uygulama ile desteklenmiş ters-yüz öğretim ortamı kullanan öğrencilerin akademik başarılarının ve işbirlikli öğrenmeye yönelik görüşlerin incelenmesi* [Determining the academic achievement of students who use flipped classroom method supported by mobile application and their views on cooperative learning]. (Master's thesis, Selçuk University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Boyraz, A. (2019). *İlköğretim yedinci sınıf öğrencilerinin maddenin yapısı ve özellikleri ünitesindeki başarılarına legolarla zenginleştirilmiş işbirlikçi öğrenme yönteminin etkisi* [The effect of cooperative learning enriched with lego on seventh grade students' achievements in the unit of structure of matter and its properties]. (Master's thesis, Erciyes University, Kayseri, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Bozkurt, T. (2019). *9. sınıf İngilizce dersinde işbirlikli öğrenme tekniğinin öğrencilerin eleştirel düşünme eğilimine etkisi* [The ninth of cooperative learning technique on the ninth grade students' critical thinking disposition in the English teaching]. (Master's thesis, Yıldız Teknik University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Büker, M. V. (2019). *İş birliğine dayalı öğretim yönteminin lise öğrencilerinin Osmanlı Türkçesi metinlerini okuma becerilerine etkisi* [The influence of collaborative learning method on reading skills with the Ottoman Turkish texts of high school students]. (Master's thesis, Atatürk University, Erzurum, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Cacim, S. (2018). *İşbirlikli ve geleneksel öğretim yöntemlerinin voleybol dersinin öğretiminde karşılaştırmalı olarak incelenmesi* [A comparative study of cooperative and traditional teaching methods in teaching volleyball lesson]. (Master's thesis, Ağrı İbrahim Çeçen University, Ağrı, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Cohen, J. (1992). Statistical power analysis. *Current Directions in Psychological Science*, 1(3), 98-101.
- Çalışkan, H. İ. (2018). *İşbirlikli öğrenme yönteminin dokuzuncu sınıf öğrencilerinin fonksiyon konusundaki başarısına etkisi* [The effect of cooperative learning technique on the academic success of functions subject of the ninth grade students]. (Master's thesis, Necmettin Erbakan University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Çelebi Yıldız, N. (2002). *Verilerin değerlendirilmesinde meta analiz* [Meta analysis method in data evaluation]. (Master's thesis, Marmara University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Çiftçi, O. (2018). *Üçgenler konusundaki öğrenme güçlüklerinin belirlenerek önlenmesine yönelik tasarlanan teknoloji destekli işbirlikli öğrenme ortamının incelenmesi* [The investigation of the technology supported



- cooperative learning environment designed for the prevention of learning difficulties in triangles]. (Doctoral dissertation, Atatürk University, Erzurum, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Demiray, P. (2013). *Proje tabanlı öğrenme modelinin etkililiği: Bir meta analiz çalışması* [The effect of project based learning method: A meta analytic study]. (Master's thesis, Ankara University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \* Diker, H. (2019). *İşbirliğine dayalı öğrenme yaklaşımının altıncı sınıf öğrencilerinin matematik dersindeki problem çözme ve akademik risk alma düzeylerine etkisi: Afyonkarahisar Sinanpaşa ilçesi örneği* [The effect of cooperative learning approach on 6th grade students' problem solve and academic risk taking levels in mathematic lesson]. (Master's thesis, Afyon Kocatepe University, Afyonkarahisar, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Dinçer, S. (2014). *Eğitim bilimlerinde uygulamalı meta-analiz* [Applied meta-analysis in education sciences]. Ankara, Turkey: Pegem Akademi.
- \*Edeş, O. (2019). *7. sınıf sosyal bilgiler dersinde işbirliğine dayalı öğretim yöntemi takım - oyun - turnuva tekniğinin öğrenci başarısına olan etkisi* [Effect of cooperative teaching method team - game - tournament technique on social studies course success for 7th grade students]. (Master's thesis, Kafkas University, Kars, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Erbil, D. G. (2019). *Tersine çevrilmiş sınıf ortamında işbirlikli öğrenme yönteminin akademik başarı ve psikososyal değişkenler üzerindeki etkisi* [The effects of cooperative learning applied in flipped classroom on academic achievement and psychosocial variables]. (Doctoral dissertation, Dokuz Eylül University, İzmir, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Ercan, İ. (2019). *İş birlikli öğrenme yönteminin ortaokul öğrencilerinin bilgilendirici metin yazma becerilerine ve yazma tutumlarına etkisi* [The effect of collaborative learning method on informative text writing skills and writing attitudes of secondary school students]. (Master's thesis, Kırıkkale University, Kırıkkale, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Ergün, S. (2019). *Maddenin yapısı ve özellikleri ünitesinde işbirliğine dayalı bilgisayar destekli öğrenmenin başarı ve tutuma etkisi* [The effect of computer based cooperative learning on the success and attitude of the students through "the structure and properties of matter" unit]. (Master's thesis, Trakya University, Edirne, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Erkoç, M. E. (2018). *İşbirlikli oyun tasarımının eleştirel düşünme, problem çözme ve algoritma geliştirme becerisine etkisi* [The effect of collaborative game design on critical thinking, problem solving and algorithm development skills]. (Doctoral dissertation, İstanbul University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Felder, R. M., & Brent, R. (2007). Cooperative learning. *Active Learning*, 34-53. doi:10.1021/bk-2007-0970.ch004
- Glass, G. V. (1976). Primary, secondary, and meta-analysis of research. *Educational Researcher*, 5(10), 3-8.
- Hedeen, T. (2003). The reverse jigsaw: A process of cooperative learning and discussion. *Teaching Sociology*, 31(3), 325-332.

- İleri, Y. E. (2019). *Fen bilimlerinde işbirlikli öğrenme yaklaşımı'nın akademik başarıya etkisinin incelenmesi: Bir meta-analiz çalışması* [The effect of a cooperative learning approach on academic success in science education: a meta-analysis study]. (Master's thesis, Gazi University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Jacobs, G. M., Lee, C., & Ng, M. (1997). *Co-operative learning in the thinking classroom*. Paper presented at the International Conference on Thinking, Singapore.
- Johnson, R. T., & Johnson, D. W. (2009). Making cooperative learning work. *Theory Into Practice*, 38(2), 67-73, doi: [10.1080/00405849909543834](https://doi.org/10.1080/00405849909543834)
- Johnson, R. T., & Johnson, D. W. (1986). Cooperative learning in the science classroom. *Science and children*, 19-20.
- Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2000). *Cooperative learning methods: A meta-analysis*. Minneapolis, MN: University of Minnesota.
- \*Kayış, E. (2019). *Dörtgenlerin sınıflandırılması ve alan bağıntılarının oluşturulması konularında işbirlikli öğrenme yöntemiyle tasarlanan öğrenme ortamının değerlendirilmesi* [Evaluation of learning environment designed by cooperative learning method for classification of quadrilateral and forming their area formulas]. (Master's thesis, Trabzon University, Trabzon, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Kil, G. (2019). *6. sınıf yabancı dil (İngilizce) dersinde işbirlikli öğrenme yönteminin öğrencilerin sözcük dağarcıklarını geliştirmelerine ve derse yönelik tutumlarına etkisi* [The effects of the cooperative learning method on students' vocabulary learning and their attitudes towards lesson in 6th grade foreign language (English) class]. (Master's thesis, Burdur Mehmet Akif University, Burdur, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Koçyiğit, M. (2018). *İşbirlikli öğrenme yaklaşımının öğrencilerin coğrafya derslerindeki akademik başarılarına ve tutumlarına etkisi* [The effects of cooperative learning method on the students achievement and attitudes in geography lesson]. (Master's thesis, Atatürk University, Erzurum, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Kurtuldu, G. (2019). *Ortaokul 6. sınıf "Yurdumuzdaki başlıca müzik türlerini ayırt eder" kazanımının işbirlikli öğrenme yaklaşımı ile öğretilmesine dönük bir çalışma* [A study about teaching a gain named "Distinguish primary music kinds in our country" stated in secondary school curriculum by using cooperative learning]. (Master's thesis, Trabzon University, Trabzon, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Küçük Turgut, B. (2018). *Sosyal bilgiler dersinde sorumluluk, yardımseverlik, hak ve özgürlüklere saygı değerlerinin kazanımında işbirlikli öğrenme modelinin etkisi* [The effect of cooperative learning method on the acquisition of responsibility, helpfulness, respect of rights and freedoms values in social studies lesson]. (Doctoral dissertation, Atatürk University, Erzurum, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>

- Macit, E., & Aslaner, R. (2019). Ortaokul matematik derslerinde işbirlikli öğrenmenin kullanılmasına ilişkin öğretmen görüşleri [Views of teacher on using cooperative learning in math lessons at primary school]. *Fen, Matematik, Girişimcilik ve Teknoloji Eğitimi Dergisi* [Journal of science, Mathematics, Entrepreneurship and Technology Education], 2(2), 134-157.
- Özer, M. A. (2005). Etkin öğrenmede yeni arayışlar: işbirliğine dayalı öğrenme ve buluş yoluyla öğrenme [New quests in effective learning: Cooperative learning and discovery learning]. *BİLİG, Türk Dünyası Sosyal Bilimler Dergisi* [Journal of Social Sciences of the Turkic World], 35, 105-131.
- \*Özmen Ülük, S. (2019). *Öğrenme kutuları ile işbirlikli öğrenme yaklaşımının 10. sınıf öğrencilerinin biyoloji dersine yönelik tutumlarına ve bilimsel süreç becerilerine etkisi* [The effect of cooperative learning approach with learning boxes on 10th grade students' attitudes towards biology course and scientific process skills]. (Master's thesis, Dicle University, Diyarbakır, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Senemoğlu, N. (2015). *Gelişim, öğrenme ve öğretim* [Development, learning and teaching]. Ankara, Turkey: Yargı Yayınevi.
- \*Sever, E. (2019). *İş birliğine dayalı öğrenmenin yazılı anlatıma, öz düzenleme becerisine ve yazma motivasyonuna etkisi* [The impact of collaborative learning on written expression, self regulation skill and writing motivation]. (Doctoral dissertation, Gazi University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Shimazoe, J., & Aldrich, H. E. (2010). Group work can be gratifying: Understanding & overcoming resistance to cooperative learning. *College Teaching*, 58(2), 52-57.
- Slavin, R. E. (1980). Cooperative learning. *Review of Educational Research*, 50(2), 315-342.
- Slavin, R. E. (1983). When does cooperative learning increase student achievement? *Psychological Bulletin*, 94(3), 429-445. doi:10.1037/0033-2909.94.3.429
- Sönmez, V. (2019). *Öğretim ilke ve yöntemleri* [Teaching principles and methods]. Ankara, Turkey: Anı Yayıncılık.
- Şen, S., & Akbaş, N. (2016). Çok düzeyli meta-analiz yöntemleri üzerine bir çalışma [A study on multilevel meta-analysis methods]. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi* [Journal of Measurement and Evaluation in Education and Psychology], 7(1), 1-17.
- \*Tanrıverdi, T. (2019). *İlkokul ikinci sınıfta işbirlikli öğrenme yönteminin öğrencilerin kelime hazinesi gelişimine ve Türkçe dersine yönelik tutumlarına etkisinin incelenmesi* [Investigation of the effect of cooperative learning method on the development of vocabulary and towards Turkish lecture in elementary school second year]. (Master's thesis, Sakarya University, Sakarya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- \*Uslu, A. (2019). *İşbirlikli dijital hikâye anlatımının ilkokul 4. sınıf öğrencilerinin yaratıcı yazma ve sosyal duygusal öğrenme becerilerine etkisi* [The effect of collaborative digital storytelling on creative writing and social emotional learning skills of primary school 4th grade students]. (Master's thesis, Marmara University, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>

Vygotsky, L. S.(1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

\*Yıldırım, R. (2019). *İşbirlikçi öğrenme yönteminin ortaöğretim 10. sınıf biyoloji dersindeki hücre bölünmeleri konusunda öğrenci başarısı ve tutumuna etkisi* [The effect of cooperative learning method on teaching the unit of “cell division” in biology course on the achievement and attitudes of 10th grade high school students]. (Master’s thesis, Necmettin Erbakan University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>

Yıldız, V. (1999). İşbirlikli öğrenme ile geleneksel öğrenme grupları arasındaki farklar [The differences between cooperative learning and traditional learning groups]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* [Hacettepe University Journal of Education], 16(17), 155-163.

Yılmaz, A. (2001). Sınıf içi öğrenci - öğrenci etkileşiminin öğrenme ve sosyal gelişim üzerindeki etkileri [In-class student - effects of student interaction on learning and social development]. *Kuram ve Uygulamada Eğitim Yönetimi* [Educational Administration: Theory and Practice], 25, 147-158.

\*Yılmaz, H. E. (2018). *İşbirlikli öğrenme yöntemi ile yapılan egzersizlerin fiziksel gelişime etkisi* [Effects of exercises made with cooperative learning method on physical development]. (Master’s thesis, Selçuk University, Konya, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>

Zakaria, E., Chin, L. C., & Daud, Md. Y. (2010). The effects of cooperative learning on students’ mathematics achievement and attitude towards mathematics. *Journal of Social Sciences*, 6(2), 272-275.

## Parents Educational Concerns about Their Middle School Children

Aysel Ateş<sup>1</sup>

*Ministry of Education*

Ali Ünal<sup>2</sup>

*Necmettin Erbakan University*

### Abstract

This study intends to define the educational concerns of Turkish parents whose children at middle school. The study is conducted a phenomenon science pattern one of the qualitative research approaches. Data were collected by two focus group meetings from 22 parents, live in three different districts in Istanbul in the 2019-2020 academic year. The criterion sampling method, which is one of purposeful sampling method, was used to select participants. Data construed by content analysis. The study result indicates that the parents whose children in middle school, stable concern about education policies that change frequently in consequence of not paying attention to the goals and principles of the educational system, uncertainty that occurs because of the way practitioners understand and implement educational policies and not trust neither education system nor administrator and teachers. Besides these basic concerns, parents also have some expectancies. They desire that their children are advanced as a whole not only academically but also socially and psychologically on the base of their individual feature. They believe their children can not get the education which helps them to get a good job and make them successful in life. Some suggestions are made for policymakers and practitioners.

### Key Words

Parents' concerns • Education system • School • Teacher and administrator qualification

<sup>1</sup> **Correspondance to:** Aysel Ateş (PhD), Teacher, Ministry of Education, İstanbul, Turkey. E-mail: ates.aysel@yahoo.com **ORCID:** 0000-0001-7582-6243

<sup>2</sup> Department of Education Sciences, Necmettin Erbakan University, Konya, Turkey. E-mail: aliunal37@hotmail.com **ORCID:** 0000-0003-2967-2444

**Citation:** Ateş, A., & Ünal, A. (2020). Parents educational concerns about their middle school children. *Research on Education and Psychology (REP)*, 4(1), 73-97.

"I'm looking for a house with a view of Science High School!" The phrase is the title of an article written by the author of a local newspaper (İlmak, 2017). The author used this title to emphasize that parents have begun to ask the question "Am I at the right address" as a result of the changes made by Ministry of Education (MoNE) at the beginning of the 2017-2018 academic year, which are about transition systems from primary to secondary education and the address-based school enrollment that came to the agenda within the scope of these changes. As İlmak (2017) states that although there is no such evidence that whether parents have moved close to qualified schools or not, it is likely to happen. As a matter of fact, the increase or decrease in house prices is a situation occurred in Singapore because the parents move close to the schools that they consider qualified (Ng, 2019).

Parents want the best for their children and are worried about it, hoping that their children will have a better future than themselves (Ng, 2019). Parents' concerns about their children affect their parenting behavior, which has an impact on their child's well-being (Restall & Borton, 2010). For this reason, it can be said that parents having positive expectations and concerns about their children is one of the positive aspects of parenting (Algarvio & Leal, 2016). İlmak (2017), in his article mentioned above, talks about five different types of parents who have different types of stances on the subject: those who are satisfied with the public school of their children are currently studying (satisfied ones); those who enroll their children in a private school of their choice (relaxed ones); those who care a little bit about the subject but say "I can not change something even if I want it" (desperate ones), "never worry about such issues" (disinterested ones) and those who are not in any of the four groups counted (anxious ones). According to the author's observation, those who are looking for better education (anxious ones) make up the majority of the parents (55-60%). Determining what parents are looking for, and what their concerns are about the education of their children can help to adjust education and school policies and direct practices. For this reason, parents' concerns about the education of their children have been identified as the subject of the study.

Slater et al. (2010) found that Australian parents are concerned about the health and well-being of their children, violence, substance and alcohol abuse, and mostly their education. Researchs by Burgess, Greaves, Vignoles and Wilson (2014) and Rubie-Davies, Peterson, Irving, Widdowson and Dixon (2010) indicate that among the expectation of parents towards their children, there is to show a high academic success. In this context, it can be said that it is an expected condition that parents are concerned about their children's education in Turkey as primarily there are problems with the academic success of students. The international indicator of these problems is PISA and TIMSS results. Even if the average score of Turkey increases in time, it is still below the Organisation for Economic Co-operation and Development [OECD] average (Education Reform Initiative [ERI], 2018; Ministry of National Education [MoNE], 2018; OECD, 2019; Turkish Education Association [TEA], 2017; TEA, 2018). The national indicator of educational problems is the exams made in university entrance and transition from primary to secondary education. For example, in the Basic Proficiency Test in the 2019 Higher Education Institutions Exam, the average of Turkish in 40 questions is 14.6, Basic Math is 5.7; In 20 questions, the average of Social Sciences is 6.7 and the average of Science is 2.2 (Measuring, Selection and Placement Center [OSYM], 2019). As it is seen, secondary school seniors or graduates are unable to answer even half of the questions on average, and they can answer almost only 10 percent in science. A similar situation exists in the 8th Grade students' Central Exam for Secondary Education Institutions. Among the subtests with twenty questions, the average number of correct answers of the students; In Turkish, 11.75; In mathematics, it is 5.09. With ten questions, T.R. The History of Revolution and Kemalism is 6.88 and the average of Foreign

Language is 4.65. Students can not even answer half of the questions on average in the numerical section (MoNE, 2019).

Coldron and Boulton (1991) maintained that not only academic success is sufficient for parents but also their children have the expectations and desires to be safe and happy at school. Moreover, Francis and Archer (2005) found that parents mediate their children's adaptation to society, their development, and moral values. Ryan, Casas, Kelly-Vance, Ryalls, and Nero (2010) revealed that Latin-American families expect both academic success and social skill acquisition from education in their study with Latin-American families living in the United States. Unlike Latin families, American families expect their children to gain social skills/success from education. As noted by Schneider, Marschall, Teske and Roch (1998) in their research that families with low education levels prefer standard test success-oriented education so that their children can settle in a good university and have a profitable income. Saçkes (2013), noticed that the social-emotional development of children is preferred mostly from families with a higher income level in Turkey than middle-income families. In another study of Saçkes (2014), it was found that families with lower and middle-income levels care about reading, writing, and mathematics in preschool education, while families with high-income levels care about ethics and arts education. As we have seen, both in Turkey and other countries, different parent groups have various expectations rather than only academic success, such as values, social skills, emotional development, adapting to society as well. By putting a goal like: "All our students will be provided with the knowledge, skills, attitudes, and behaviors in line with the common values of our civilization and humanity and the requirements of the age," to the 2019-2023 Strategic Plan at the Ministry of National Education (MoNE), not only in the academic success of the students; revealed that there is a problem in their skills, attitudes, and behaviors (MoNE, 2019). Considering that the vision document has been prepared to solve the current problems, it may be possible for parents to see the issues that they should be concerned about their children's education (MoNE, 2018). For example, the vision of "The Ministry's All Decisions Would Be Based on Data" in the vision document is of concern about the way decisions are taken before the vision document. Apart from this, it is understood from the vision document that MoNE itself has identified problems in teacher training, security, hygiene, identification and education of gifted individuals, and foreign language teaching. Accordingly, it can be mentioned about the problems detected by the Ministry of National Education, academic success and other problems that parents should worry about in terms of their children's education.

The education received by the individual affects both the quality of their economic activities and the labor force participation rates, and the labor force participation rates are expected to increase as the level of education increases (Kavak, 1997). However, as of September 2019 the unemployment rate in Turkey was 13.9%, youth (15-24) unemployment rate was 26.1% (Turkish Statistical Institute [TSI], 2019). This may be an indicator that education does not help young people to find a job, given that the enrollment rate has increased recently. As such, considering the educational-employment correlation, parents can be expected to be anxious about their children's education.

According to Wentzel's (1998) study, parental beliefs are a meaningful and independent predictor of children's educational attainment. Spera, Wentzel, and Matto (2009) found that four-fifths of families in America want their children to receive at least a bachelor's degree. Accordingly, parents who have high educational expectations for their children can be expected to be concerned about whether their children can go to university.



Turkish education system; It is possible to talk about many problems such as differentiated education practices, professional development and supervision of teachers, high teacher turnover in schools and psychological pressure of education on students (Abu, Bacanak & Gökdere, 2016; Can, 2019; ERI, 2019; Gedikoğlu, 2005; Özdemir & Kaplan, 2017; Özyılmaz, 2017; Ünal & Sürücü, 2018; Yeşil & Şahan, 2015; Yılmaz & Altınkurt, 2011). It can be said that all of the problems mentioned are of a concern for parents who care about their child's education. To get rid of this concern, some of the parents prefer to send their children to a private school, while some choose to take private lessons from the academic lessons that their child needs support or send them to study centers, and some go to choose a school-teacher (Çetin & Ünsal, 2018; Demir & Yılmaz, 2019; Keskin & Turna, 2010; Pulat, 2019; Taşkın & Aksoy, 2018; Yurttaş Kumlu & Çobanoğlu, 2019). Some of the parents have all the options counted for the education of their children, while others do not. There is a 15 times difference between the expenditures of the poor and the expenditures of the rich, and the expenditures of the rich increase while the expenditure of the poor decreases (Kömüş, 2019). Consequently, the poor do not seem to have any choice but to be satisfied, hopeless, indifferent or worried about the education of their children. Almost all the researches aimed at identifying the problems of the education system have been carried out either from the perspective of teacher candidates, teachers or school administrators. However, changing education paradigms point out that parents, who are important stakeholders of education, their concern should also be considered about their children's education. Therefore, it can be expected that the determinations to be made regarding the problems of education based on the concerns of the parents about the education of their children will contribute to decision making for both education/school administrators, teachers and education policymakers. The study, it was aimed to determine the concerns of parents ,who have the child in secondary school, about their children's education.

## Method

### Research Model

The research was carried out in the phenomenology pattern, which is one of the qualitative research patterns. The purpose of using the phenomenology pattern is to examine parents' concerns about the education of their children. Because phenomenology focuses on the cases which we are aware of but also does not have a detailed and in-depth understanding. We can encounter these facts in the world we live in as experience, orientation, event, perception, situation or concept (Yıldırım & Şimşek, 2016).

### Study Group

The criteria sampling method, one of the purposeful sampling methods, was used in the selection of the study group. The purpose of using the criterion sampling method is that this sampling method allows observation units to be situations, objects or people with certain characteristics. For this purpose, first of all, demographic data that parents should have were determined. Demographic data include the gender of the parent, education level, marital status; the gender of the child, the type of school, the level of success and the environment in which the school is located. After the determination of demographic data, schools were selected. Considering the location and easy accessibility of researchers, the websites of secondary schools in Beylikduzu, Kucukcekmece and Avcılar districts of Istanbul were examined and how many students were placed in Anatolian and Science high schools who took students with an exam in the High School Entrance Exam (HSEE). Some criteria were taken into consideration to decide which school takes place in the sample. The criteria were that the school whose



students were enrolled in high schools that selected students according to results of HSEE the most and the least were chosen. According to these criteria, two middle and two religious middle schools from Beylikduzu district, one middle and one religious middle school from Kucukcekmece district and one private middle school from Avclar district were picked up. In these schools, 22 (twenty-two) parents who agreed to participate in the research with demographic data determined in the 2019-2020 academic year constituted the working group of the research. Among the parents, 9 (nine) of them are middle school students' parents, ten (10) of them are religious middle school students' parents and 3 (three) of them are private middle school students' parents. As 7 (seven) of the middle school parents and 8 of the religious middle school parents are the parents of the middle schools in the same district, the parents of the other 2 (two) middle schools and 2 (two) religious middle schools are the parents of the schools in different districts. 3 (three) private middle school parents live in a district different from the two groups. While 11 (eleven) parents' children are academically successful, 11 (eleven) children are academically unsuccessful. The criterion of the academic success of the child was taken to be 80.00 of weighted average grade in the previous academic year. The demographic information of the parents who make up the study group are shown in Table 1. Parental names were code names given to parents.

Table 1

*Participant Demographics*

Parents' code names	Parent Gender	Parent Education	Marital Status	Gender (Student)	School (Student)	Success (Student)	School Neighborhood
Ayşe	Female	University	Married	Girl	Middle School	Successful	Urban
Fatma	Female	High School	Married	Boy	Middle School	Successful	Urban
Yasemin	Female	High School	Married	Girl	Religious Mid. Sch.	Unsuccessful	Suburban
Ahmet	Male	University	Married	Girl	Religious Mid. Sch.	Successful	Suburban
Aylin	Female	Middle School	Married	Boy	Religious Mid. Sch.	Unsuccessful	Urban
Mehmet	Male	High School	Divorced	Boy	Middle School	Unsuccessful	Suburban
Mustafa	Male	Associate Degree	Widow	Boy	Religious Mid. Sch.	Unsuccessful	Suburban
Canan	Female	Middle School	Married	Girl	Religious Mid. Sch.	Unsuccessful	Urban
Ali	Male	University	Married	Girl	Middle School	Successful	Urban
Filiz	Female	High School	Married	Boy	Religious Mid. Sch.	Successful	Suburban
Zehra	Female	Primary School	Divorced	Boy	Religious Mid. Sch.	Successful	Suburban
Oya	Female	Middle School	Married	Girl	Middle School	Unsuccessful	Urban
Hasan	Male	High School	Married	Boy	Middle School	Unsuccessful	Suburban
Hüseyin	Male	University	Married	Boy	Middle School	Successful	Urban
Sibel	Female	High School	Divorced	Boy	Religious Mid. Sch.	Unsuccessful	Suburban
Nurcan	Female	High School	Married	Girl	Religious Mid. Sch.	Successful	Urban
Hakan	Male	University	Married	Girl	Private Mid. Sch.	Unsuccessful	Urban
Burcu	Female	University	Divorced	Boy	Private Mid. Sch.	Successful	Urban
Aslı	Female	High School	Married	Girl	Private Mid. Sch.	Successful	Urban
Yusuf	Male	Middle School	Married	Boy	Middle School	Unsuccessful	Suburban
Osman	Male	University	Married	Boy	Religious Mid. Sch.	Successful	Suburban
Kaan	Male	Associate Degree	Widow	Boy	Middle School	Unsuccessful	Urban

**Data Collection Tools**

Two focus group interviews were conducted to collect research data. The first of the interview was held in September 2019 and the second in October. The first interview was conducted with the participation of 15 (fifteen), the second interview with the participation of 7 (seven) parents. The interviews took place in the study room of a library in Beylikduzu district of Istanbul, the first one took 160 minutes and the second one 75 minutes. The moderator of the interviews was the first researcher living in Istanbul. The interviews were recorded with a voice recorder with the permission of the participants. "What are the issues that concern you most about your child's education?" was asked. The first and second interview record was written in Times New Roman font in Word format with a single line spacing. The first interview text was 10105 words and 30 (thirty) pages, the second interview text was 8,095 words and 21 pages.

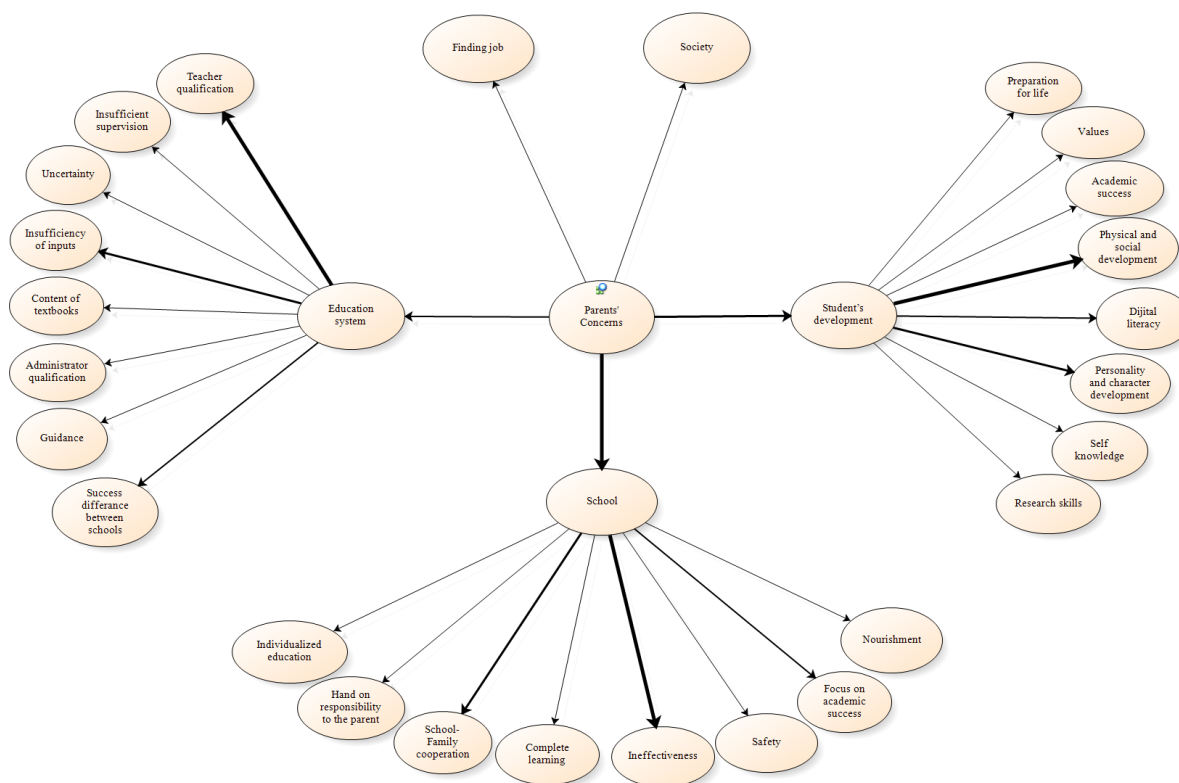
The analysis of the data obtained from the interviews was carried out by the content analysis method. Firstly, two researchers coded the data separately. The creation of themes after coding was carried out in two stages. In the first stage, the first researcher categorized the codes under the themes by categorizing themes, and the second researcher examined the themes created by the first researcher and stated their opinions. The first researcher rearranged the themes, taking into account the views of the second researcher. In the second stage, both researchers decided on the themes together. In this way, the reliability of the research was tried to be increased. Also, before the focus group interviews, the participants were informed that participation was on a voluntary basis, the data would be used only for scientific purposes and not to be shared with the people who are not involved in the research. In this way, an environment was prepared for the participants to convey themselves and their concerns without hesitation in the focus group meeting and the reliability of the research was trying to be ensured.

For the validity of the research, 17 (seventeen) participants with an e-mail address were first sent to the transcript of the interview and then the findings of the research were received for confirmation. 14 (fourteen) of the parents returned to report their confirmation. Transcript and findings of the interview were delivered to 5 (five) participants without an e-mail address. Parents stated that they confirmed both the transcript and the findings. A further meeting was held with these participants to convey the findings of the research and their approval was obtained. In the presentation of the findings, detailed quotations from the participants' opinions were supported. In this way, it is aimed to create an image about the environment in which the data is collected in the mental world of the reader and to easily reach the results of his own environment (Merriam, 2013).

### **Findings**

Research findings cover the themes and their sub-themes obtained as a result of the content analysis of their answers to the question "What are the issues that concern you most about your child's education?". Parents' concerns about the education of their children are integrated at the themes of; the education system, school, student development, finding job and society. In Figure 1, the themes and sub-themes created regarding the concerns of the parents about the education of their children are shown as models.

Figure 1

*Parents' Concerns*

**1. Education system:** One of the concerns parents have about the education of their children is related to the education system itself. Parents, regarding the education system; they are concerned about the uncertainty of the system, success difference between schools for their children, the insufficiency of the inputs of the system, the lack of supervision, the content of the textbooks, the quality of the teacher, the quality of the administrator and the guidance.

**Uncertainty:** Participating parents are concerned about the uncertainty or frequent change of the education system's policies on behalf of their children, according to their views integrated under this theme. The reason for concern is that their children experience an uncertainty about what kind of education they will receive. While expressing this situation, Fatma said, "... but he still hasn't been able to decide where he wants to arrive, what he wants to give his own children to his generation..." Mehmet said, "...the new minister said that the system will not change for our students, but in a word, our concerns do not end..." it has.

According to parents, the reasons for the uncertainty or frequent change of policies may be the practitioners or the size of the system. Ahmet said: "... we want to see those goals in applications. I have to see that the objectives stated by the principal live in the classroom and my child..." about this situation. According to the participants who related the problem to the size of the system, the system is so large that it has become unmanageable. This situation was expressed by Mustafa in the following words. "... add teachers, parents, retainers... that makes too many people. This is a ministry that affects so many people. We don't know that when the minister says so, does everyone do what he says?..."

**Success Difference Between Schools:** Parents are concerned about the difference in success between schools on the education of their children. It is among the parents' concerns that secondary education institutions, where their children will continue after primary education, are determined by central examinations and that the child will continue their education life in that school. Filiz expressed her concern towards this situation as "...they will be placed in high schools according to the results of the exam. If they do not get the score they want, they have to choose some schools according to the placement system or they will go to open education high school..." Parents want their children to have more school options and even to switch between secondary schools. Canan expresses her concern in this regard with the words: "...there must be a chance, an opportunity for the child, as you could not do it in the exam anymore, the imprisonment of this high school should not be imposed..."

**Insufficiency of Inputs:** Another theme that concerns parents in the education of their children are the insufficiency of inputs and resources allocated to education. While the lack of input results in the insufficient number of schools and classrooms according to the parents; their inadequacy brings crowded classes. Zehra says, "... they say that the existing ones will decrease. I swear to Allah, It is not at all, our class has been 48 people this year. We are 48 people because we are in a suburb neighborhood..." and Ahmet said, "... but it is important to have physical conditions to help the teacher. Just accept that the teacher is squeezed between the four walls to the class..." Aylin, as another reflection of the insufficiency of inputs, points out the physical differences between schools "... the teacher will do physical education, there is no gym; I passed the gym, the simplest is basketball, there is no basketball ball or volleyball ball. Music teacher, is going to teach to play an instrument without a specific music class This time he plays in the classroom, the side class complains because there is sound..." Fatma, one of the other participants, talks about the physical differences between schools "... there are many differences among public schools, friends. You are looking at a public school, even worse than a village school, in Istanbul. Then you are looking at another one, you think you are entering the door of a private school..." Speaking of physical differences between schools, parents expressed that many schools do not have areas such as a library, gymnasium, painting workshop, and science laboratory.

Moreover, as a result of insufficient inputs, about crowded classes, Hüseyin said "... though my child is not a child who participates in every class, but who knows, maybe if there were few, maybe he would behave differently in the class, attracting more attention from the teacher because of his current situation..."

**Insufficient Supervision:** On the education of their children, parents also state that they receive support from outside but the school. Among these institutions, talent courses and study centers are shown as examples. Parents think that out-of-school institutions are not supervised and do not act responsibly. They express that their children are in an uncontrolled environment, especially in the institutions that are visited. Hasan's "... no follow-up, no supervision. We send it for the sake of goodness, but we do not know if it will be good..." words express his concern. Ayşe explains the irresponsibility of those courses by saying "...who will approach my son, what will he do in those study centers, this makes me too nervous..."

**Content of The Textbooks:** The visuals, insufficient information and spelling mistakes in the textbooks are a source of parents' concerns. For example, Aylin expressed her concerns about the accuracy of the information in the textbooks as follows: "...actually, the accuracy of the information in the books should be debated and discussed..." Mehmet also expressed his concern about the visuals in the textbook by saying "...something is written under the picture... This is the book that given by the Ministry of Education... the child looks to picture

first, then reads the text... My child needs to be protected about this too, at least I should not worry about this one, should I?!..."

**Teacher Qualification:** Parents are particularly concerned about teacher quality. Parents are concerned about teachers' communication skills, professional knowledge, responsibility, pedagogy knowledge, professional development, and psychological health. While Oya highlighted the communication skills of the teachers with the words "...while the majority of teachers are only talking about the problem, only one teacher communicates with the student. Why they do not try to solve the problem?..."; Sibel expresses the importance of professional knowledge by saying "... even though my child is shy, he raised his hand and asked a question. It is a huge thing for him. Considering the reaction of the teacher, I am wondering whether if he knew the answer to the question or not. A teacher must be able to answer a question that is related to his lesson..." At the same time, parents have beliefs that teachers do not take responsibility for the learning of the child and this creates concern in them. Ahmet expresses his concern about this by saying "... so you are a teacher, why don't you wonder that this student does not attend to class, why are you not interested about why he is not asking any questions? Is this is all about being a teacher, is being a teacher is only telling parents that your child can do this and can not do this? Don't you feel bad when a student can not learn well?..." Canan expressed her concern about the competencies of teachers regarding pedagogy knowledge by saying "...the kid got a low grade as he struggles. So what is the point of making him sit at the back row, I don't know. So is the teacher only going to be the teacher of the successful ones?..." About the same issue, Kaan said "...are we going to bump into teachers who will understand my child one day? These kinds of teachers exist or are they just a myth?..." which shows the concern about this issue. The professional development of the teacher is among the parents' concerns about the quality of the teacher. According to Hüseyin's words: "...how many books a teacher is reading in his own branch, how many scientific meetings he attends, how much he follows innovations, how much he goes to the theater, how much he reflects in the class..", it can be said that parents can be considered anxious about this as the participation of the teacher in these activities will have positive effects on the students and if the participation not happens it will lead to negative outcomes on the students. Ali's speech "... The teacher's mood is reflected in our children. If the teacher shouts and yells in the classroom even in the smallest thing, what will the child learn from that lesson? What kind of people educate my child?..." indicates that among the anxiety of parents, there is also the psychological health of the teacher.

**Administrator Qualification:** Parents find some of the behaviors of school administrators concerning. For instance, they think that school administrators are not based on the interests of children when determining school rules. Oya expresses her opinion on this subject with the words "...if you are not going to help the child's goodness, why are you sitting on that chair..? What is the purpose of a manager, creating excuses or actually trying to do something?..." By giving examples, parents also explain that school administrators do not put enough effort to find solutions to problems, moreover, they are far from identifying the problem correctly. For example, Hakan said, "... we show a solution. Finally, they announced that they would give permission to the students who have a doctor's report. I think rather than school, the administrators are the source of the problem here..."

**Guidance:** Parents are concerned that their children are not adequately guided for higher education institutions where they can go after school. They also believe that neither they nor their children are informed

about the educational opportunities available to their children, and they are concerned that they think that they will not be able to access any information on these issues. Yasemin conveys her concern by saying "... they can go to which schools in Turkey, which opportunities they have offered by the state, I can take advantage of what, which other schools that I can send my daughter to?..." On the other hand, Hakan expresses his concern with those words "... not only in Turkey but also is there any other school that provides an opportunity for them? I can not reach to all kinds of this information and I do not how to..."

**2. School:** As a result of the integration of parents' views, it was observed that some of the parents' concerns were related to the school. School concerns include focusing on academic success, ineffectiveness, school-family cooperation, hand on the responsibility to parents, safety, nourishment, individualized education and complete learning.

**Focusing on Academic Success:** When the participants' opinions are evaluated, it is seen that the parents are concerned about the schools to focus only on their academic success instead of the student's overall development. Burcu expresses her concerns by saying "... it is also important to communicate and express yourself... That would be very nice if they do it at school..." Osman says "...you can not make it without a foreign language... If you want to apply to a decent job, that is impossible without knowing a second language..." Aslı said, "... we do not say she should obey the order or she should not obey...In our opinion, these are inseparable things..." expressing their concerns on this issue by stating that education should not only improve academic success but also self-care skills. Hasan's concerns about education were shared by other parents. Hasan said, "... if my child is not creative, if he does not have the ability to communicate if he can not speak English, what else will my child do when the school is over?..." He pointed out that education should develop the child in the fields of creativity and communication. Also Mustafa supports this idea by saying "...school should not be a place where children only learn about science, math and Turkish..." Burcu has expressed her anxiety about schools focusing only in academic success "... they have opened a drama course but they are studying maths in that time..."

**Ineffectiveness:** One of the sub-themes that supported the school theme was ineffectiveness. Aslı, who expressed her view of ineffectiveness, said "...students do not listen to the class, they walk around and talk to each other..." About the same topic, Ahmet said "... these troubled children must be closely cared for ... Our ancestors said if you lie down with dogs, you will rise up with flees.." With the phrase "...if there is such a class at school, he should learn, shouldn't he? I mean where could it be the most correct place rather than school..." Yasemin refers to the responsibility of the school on the cognitive level, referring to the fact that she could not do this. Hakan shares the ineffectiveness of the school towards the cognitive field with the words "...when I ask the price of a certain product while shopping, my daughter can not calculate even a simple price of a product and suggests me to use a calculator instead of multiplying..." Another parent Ali points out the ineffectiveness of the school towards the cognitive domain by saying "...I said that my daughter cannot crash, divide ... we sent her to school so that she could get a better education. The teacher says that we make examples in the classroom, we answer students' questions, but..."

**School-family Cooperation:** Regarding the education of their children, it is seen that parents are concerned about insufficient school-family cooperation. Within the framework of cooperation, parents express their opinions about the fact that they find schools' studies on parent education inadequate. On the other hand, they

have concerns that the school and teachers are not cooperating with themselves to increase student success. They have the belief that cooperation on these issues will be a guide for them. While Osman states this situation by saying "...if there are training about education, especially child education, education about correct methods, for example...", Nurcan says "...someone should guide us, keep a track of us and lead us..."

Parents think that the school is inadequate to cooperate with them and find it alarming that they do not cooperate adequately with the school. For example, some parents are concerned that the school is not supported at home. They think that the school and the house should be in correlation. Ali expresses his concerns in this direction with his words "... parents should know how to act with the teacher. Parents should not this is wrong at home what the teacher teaches at school..." They are aware that their cooperation with the teacher will benefit their children.

**Hand on The Responsibility to The Parent:** Parents are especially concerned about their child's problems being imposed on them and they think that the solution is for the school rather than the family. Hüseyin's words "... the teacher says take care in each meeting, as if I do not see, I do not know the situation, but I cannot afford to solve it. The school just says the problems but does nothing to solve them..." can be considered as an example that the child sees the school as a place of solution. Parents see behavioral and academic success problems related to the child as the problem of the school and believe that they should attempt to solve these problems instead of trying to explain them to parents. They are concerned that problems are not resolved and that the solution is expected from them. While Aslı explains this situation by saying "...when I think of my own child, her attitude... I do not know if the school can keep this up on a regular basis if it can, that would be wonderful, I think the school should solve these problems..." Zehra says "...shall I work alone, get home problems or my son's problems at school?..."

**Safety:** As a result of the analysis, it is seen that one of the parents' concerns is school safety. Parents think that their children are not safe enough in the school environment. They are particularly concerned about their children being exposed to peer bullying. Hasan points out an unpleasant event by saying "...they were harassing the child at the first break. Without letting him go to the canteen and buy something, they try to get his money..." Parents are not only concerned about the school environment but are also concerned about the safety of the school's district. In order to share her concern, Fatma said, "...I am thankful that my son went to school safely. Our school is in a quite problematic neighborhood..." The school's security concern also covers the building security of the school building. Zehra said, "... how safe is our schools physically? What about an earthquake, because we have just lived, what about a fire, it may be rain or flood..." expresses her concern about this issue.

**Nourishment:** Parents are concerned about their children's nutrition. Exposure of their children to intense fast-food consumption and unhealthy canteen food is a source of anxiety for them. Parents want their children to at least have access to healthy food at school. Fatma's words: "... will there be chips or coke in a school canteen? Children buy it when they see it. Healthier things should be sold in canteens as well..." Ayşe says, "... is it outdated or is it stored properly in the canteen?" Also prices should be affordable. Every child should be able to take it..." expresses his concern in this matter.

**Individualized Education:** Parents are worried that they cannot receive education on the basis of their children's needs for individualized education. Especially, determining the individual problems and needs of the



children and doing homework based on needs are the parents' concerns in the field of individualized education. While Mustafa expressed his concern on this issue by saying "... their primary concern is not trying to find the best way to educate the student and give specific homework for the children..." Hakan said "...I want my child to learn as much as her capacity let and want her teacher to act in that way..."

**Complete Learning:** Parents think that complete learning in their children's education could not have happened and therefore they are concerned. As they state that they observed their children's academic learning remained at the level of memorization, not analysis, synthesis, with the following views "...it turns out he just memorized. Of course, when time enters, he forgets to intervene... (Hakan)", "... when my son encounters a different kind of question, he becomes vacant and prefers to answer the questions that are the same type but do not require to think over them... (Hasan) "

**3. Student's Development:** Another theme that created by parental concerns was the development of the student. Parents' concerns about this theme; life preparation, academic success, self-knowledge, digital literacy, physical and social development, personality and character development, research skills and value are integrated into sub-themes.

**Preparation For Life:** Parents think that their child's education should prepare them for life, and they are concerned about this. Sibel stated her opinion on this subject as "...the education of the child should not only prepare the child for this day but also teach and give what it needs when the child is an adult. Is there any kind of concern in our schools?..." Canan identifies this problem that education only focuses on children's daily behaviors by conveying the same concern with the words that "...education... focuses on the more daily behaviors of the students, the student should not write down the desk, should not damage the door, should not draw the wall, get along well with friends, follow the rules of the school, do his homework..." Filiz said, "...can this education system of our children prepare them for the uncertainty they will experience when they face the real face of life? I think we should leave everything aside and talk about this..." Mehmet, on the other hand, is concerned about the same issue "...I would like him to keep in mind that he is responsible for the world and that he is a part of the world. His education needs to integrate him into the World..." with his words.

**Academic Success:** Although parents expressed their concern about schools focusing only on academic success, in other words, not on the overall development of children, this does not mean that they ignore academic success. Parents are concerned about their children to fail in courses such as mathematics, science, foreign language and Turkish. They want their children to be successful in these lessons. For example, Ayşe says this "... my son's high school will be determined according to the score he will get from this exam. The high school will also determine the university to go to. My son should be successful at high school entry exam..." and Burcu talks about the same issue and says "...but that doesn't mean that he should not know math, science, English. It doesn't mean he should not understand what he reads..."

**Self Knowledge:** Another skill that is concerned and desired to be acquired is that the self-knowledge. In this regard, Zehra's words can be considered as an example of "...how will the person explain himself to the other side without knowing himself ... how much the education my child gets will help get to know himself..." Fatma pointed out the self-knowledge theme by saying "...a person does not know in which area he needs to improve himself, he learns it through education. We need exactly nothing but this..."

**Digital Literacy:** Digital literacy is another concern of parents about their children. They believe that their children are inadequate to use the technology in the correct way and avoid harmful content. Parents are aware that they cannot keep their children away from technology, but they prefer to use technology as well as being aware of its harms. About this issue, Sibel said "...how does he know if he has not watched it before, he obviously watched it. Nonsense videos, news, etc..." About the same issue, Ashi said "...they should not stay away from the technology but also they should know that for which purposes they need to use the technology. Without the internet, a computer is almost completely useless nowadays..." Again about the same topic, Oya pointed out that "...I wish they knew for what purposes they should use technology..."

**Physical and Social Development:** Parents are concerned about their children's physical and social development. They think that they need to acquire various skills (such as foreign language, arts, and sports skills, vital skills, values) within the framework of their children's physical and social development, but they are concerned that their children cannot acquire these at school. Ayşe said, "...I always need to support it from the outside of the school... the course of the sports is outside, the painting course is outside, the language course is outside... if all this will be outside, why is there a school?..." expressed in words. Hüseyin strengthened his idea that the schools are insufficient in terms of bringing skills with the words "...so let's take it to the next level, the state should not force us to send our children to school, we should choose the course and send our children ourselves..."

**Personality and Character Development:** Parents are also concerned about their child's personality. Parents think that schools should support their children in defending their rights, having personal truths and expressing themselves. Filiz stated her expectations towards her child by saying "...I want him to have an idea, stand for it and express himself..." and Mehmet expressed his concern and said "...this is a boy. This boy will have a family, have a home, he should be able to speak for himself and defend his idea. He should not wait in his corner with silence..."

Parents not only have concerns about their children having a personality but are also concerned about their children's character development. Parents draw attention to the elements of fairness, not surrendering to power and self-confidence in character development. "...I can say a few things right away but I think the most important thing is that he should not bend before the power...(Aylin)" "...if he believes that the thing that said is true, he should agree with it or he should do what he is told. He should explain his own opinion too, he should be able to say that is how I think....(Zehra)"

**Research Skills:** Parents who share their concerns expect their children to access information through research and are concerned about their ability to acquire research skills at school. The reason for this is that parents observe their children use the first information they reach without making an in-depth research and without checking its accuracy. Burcu expresses her concern about this issue by saying "...that he should write more about it. He has to learn to double-check the information he learned from the internet and has to learn how to do more research..." Parents are also concerned about their child's ability to collect data on a topic, interpret and evaluate the data they obtain. Osman shares his concern with the words "... they should know how to collect information, how to interpret and evaluate them..."

**Values:** One of the other skills that the child is asked to acquire but also leads parents to feel concerned about is having values. Aylin conveys these values as "...being hard working, being moral, not being selfish and caring

about other people..." Oya also adds being humble to those values by saying "...our features such as thinking about someone else, helping, being frugal, being humble are forgotten..."

Parents also express that they need to have national emotions during their education and are concerned about the possibility of not having national emotions. Mehmet explained this situation with words "...he should be devoted to his country, his nation. If he is not, his education would be incomplete for me..." While Zehra said "...I would be really concerned if my child did not know the history of his country, his nation, his people..."

**4. Finding a Job:** A main and another concern of parents is whether their children can go to university. The concern about whether their children can go to university lies in their concerns that if their children cannot go to college, they will not be able to find a job or find a job with a good income. Mehmet summarizes this situation with the words "...I am constantly thinking, what will my child do and how will he get a job if he can not manage to go to college? How will he maintain his living standards and earn money?..." On the other hand, Yasemin expresses her concern with these words "...of course, I want her to have high-quality life standards and to provide those standards, I want her to have a high salary job. It is a must for her to go to a college and for serious, she needs to go to a good college..."

**5. Society:** Parents are concerned about the system, the school and many other areas, as well as they think and have concerns that the society shaped by education does not support education adequately. Filiz states her opinion about how society ignores its responsibility against education by these words "...if we see some young people gathered around, we will pass nearby them quickly and think that whether they are drug addicts or not. Education is not only schools' responsibility..." In addition, Zehra indicates that parents also question the responsibility of society and school against education by words "...so a school is a building with teachers and janitors inside of it and a principle. Are they really capable of making those changes?..." Also, Yusuf explains that the school is left alone and can not answer the needs of the changing world by these words "...to add, we as a society, have changed rapidly and it would be so cruel to expect from school to keep up with it..."

## Discussion

In this study, where the aim is to identify the concerns that the parents have about their children's education, it is determined that the concerns of parents are revolving around the education system, school, the development of students, finding a job and the support of the society for education. During this research, although the participant parents were asked about the concerns about their children's education, the parents stated their concerns based on the problems that were already identified in the previous studies of the education system (Abu et al., 2016; Can, 2019; Çalikoğlu & Başar, 2019; ERI, 2018; 2019; Gedikoğlu, 2005; Kasapoğlu, 2016; OECD, 2019; Özdemir & Kaplan, 2017; Özyılmaz, 2017; TEA, 2017; 2018; Ünal & Sürücü, 2018; Yeşil & Şahan, 2015; Yılmaz & Altinkurt, 2011). In this respect, it can be conceived that the parental concerns found in this research reveal the problems of the Turkish education system in general, or that the problems of the Turkish education system concern the parents.

One of the parents' concerns about the education system is linked to uncertainty. Parents believe that there is a constant change in the education system and they are concerned about the uncertainty created by this constant change. The system changes made especially for the placement of their children in middle school education institutions create an environment of uncertainty for the parents and cause concern. Indeed transition to the

middle school education system in Turkey has changed 5 times over the last 20 years with the last alteration made in 2017 (Korlu, 2019). Previous studies on the problems of the education system have also shown that changes are constantly made in the education system and this situation leads to uncertainty, students cannot graduate with the system which they had started with and that this situation weakens students' ability to propel forwards (Çalikoğlu & Başar, 2019; Kasapoğlu, 2016; Ünal & Sürücü, 2018).

Another concern of parents about the uncertainty of the education system is that practitioners do not set educational policies according to goals or that they simply ignore the goals. This finding made by Sarpkaya (2014) regarding the problems of the Turkish education system is in line with the findings that the education system is moving away from the basic goals and principles and that the system is destined to destroy itself rapidly. The decision affects the action because, as Bursalıoğlu (1994) stated, the decision is "the heart of management is the axis of other processes" (p. 82). In this respect, the fundamental decision which has been agreed upon about the educational aims and principles in Turkey is the National Education Fundamental Law, numbered 1739. In this context, the main problem with the uncertainty that is the root of the Turkish education system's parents' concerns may be that those who manage the education system do not consider this Fundamental Law for educational purposes, either intentionally or unintentionally. When the goals and principles in the fundamental law are not taken into account, in every management change the perception of uncertainty in the education system increases, as the policies and practices change in some way in violation of the fundamental law.

Other concern of parents about the education system is the size of the system. Indeed, regardless of the decisions of the decision-makers in the center, the managers and teachers in the provinces will implement the decision. Considering that the Ministry of National Education has over one million employees, all employees are unlikely to perceive, interpret and implement the decision in the same way. Therefore, it is natural that one of the sources of uncertainty that causes parents to worry about is the size problem. Based on all this, it can be maintained that the parents' concerns about the uncertainty of the education system consist of three main sources: constant change, the state of implementation being unparalleled with goals, and size. It can be suggested that parents are worried on behalf of their children due to the uncertainty caused by the constantly changing education policies and the way practitioners understand and apply education policies as a result of failing to pay attention to the goals and principles of the Turkish education system. In this context, it can be proposed that MoNE implements its education policies after sharing them with society, ensuring their discussion and adoption by the citizens. Otherwise, parents may interpret the actions of the National Ministry of Education as completely different and assume that every new administrator randomly does whatever they desire with no regard for education purposes.

Another concern of parents about the education system is the discrepancies in success among schools. Parents think and worry that their children do not have enough alternatives for middle school education institutions to choose from having completed their current school. Parents' thoughts and concerns have robust and realistic reasons. PISA 2018 results show that there is a discrepancy in success among schools and that discrepancy continues to grow (MoNE, 2019). Due to the discrepancies in success among schools, almost all of the students attended the High School Entrance Exam (HSEE), although middle schools that did not accept students by exam in 2018 and 2019 were in the majority. The reason for this wide participation is the

discrepancies in success and opportunities among middle schools that accept students with exam scores and schools that receive students with an address based settlement system (Korlu, 2019). In other words, parents' thoughts and concerns about the discrepancies in success among schools result in almost all students entering HSEE, although it is not compulsory. Since the transitions between schools are also made according to the student's HSEE score, parents are also concerned about the loss of motivation in their children who were unable to settle in a good school in the first place. Success discrepancies among schools are not just a problem experienced in Turkey. For example, parents in Japan expect the authorities to focus on discrepancies among schools and take measures for disadvantaged students (with familial, behavioral and academic problems) rather than changing the curriculum (Maruyama, Kanoh & Adachi, 2017). MoNE should also be aware of the problems arising from the discrepancies in success among schools since it has set one of its targets to reduce the discrepancies in success among schools at all levels in its 2023 Education Vision (MoNE, 2018). Also, it may be possible for students to continue to take exams even if the discrepancies in success among schools are reduced as a result of all precautions because the perception of a good school in the minds of the parents does not change easily, the parents continue to compete relentlessly for their children to settle in good schools (Ng, 2019). Parents' concerns about higher education institutions and the educational opportunities that their children can enjoy are probably due to this competition. Even though schools do not offer information about their education facilities and opportunities, students and parents are informed about them through press and broadcast organs, internet or peer communication. Parents who are worried that their children may be left behind in the competition are likely to think that schools are not informing themselves, worrying that they might miss something.

Participating parents are also concerned about the insufficient inputs of the education system. They defined the insufficiency of inputs through the insufficient number of teachers and schools, overcrowded classes and paid teachers. The size of public resources devoted to education and its share in the gross domestic product is one of the indicators of the importance given to education in the country. While the ratio of the education budget to the GDP should be in the range of 4-6% to achieve quality education, Turkey got close to this ratio by 3.2% in 2014 (ERI, 2017). In this case, it can be argued that parents' concerns about insufficient public resources are unwarranted. Park (1994), Zachos and Panagiotidou (2019) have found similar findings in their work to assess parents' concerns. These findings suggest that the insufficiency of resources allocated to education and the concerns associated with it are not specific to Turkey. Considering that education can serve as a central determinant and also a remedy for current political and social trends that can lead to increased inequality in society (Schnepf, Klinger, Volante & Jerrim, 2019), it can be pointed out that the public resources allocated to education should be increased. Countries that have been successful in education see education as an investment rather than expenditure, and even in times of crisis, rather than reducing the budget they allocate for education, they increase it (Ng, 2019).

One of the parents' concerns about the system for the education of their children is to be unsure whether educational practices in non-school institutions such as schools and courses are controlled, and whether their children will find themselves in situations in which they are exposed to good practices or whether their children will encounter educators carrying out good practices during their education. The main concern in this context is that educational institutions and education workers are not inspected/supervised. In recent years, educational inspection/supervision practices in Turkey are either almost eliminated or are done improperly (Ünal, 2018).

Abolition of educational supervision practices or improper implementation may be the reason why parents are not sure of the practices and practitioners in schools and out-of-school educational institutions. Today, supervision is seen as the process of enhancing teaching by collaborating with the teacher (Ünal, 2018). Therefore, inadequate supervision practices will not contribute to the professional development of the school principal and teachers. In this context, it can be maintained that problems related to the supervision of the education system also contribute to the source of the parents' concerns about the content of the textbooks, the quality of the teacher and the quality of the manager. Parents' concerns about the professional development of the teacher can be overcome with an understanding that improves the supervision, learning and teaching processes, especially the teachers' communication skills, knowledge of the field, taking responsibility, pedagogy knowledge, psychological health, and the child's lack of responsibility for learning. Likewise, the decision-making behaviors of school administrators can be improved through supervision practices and their administrative qualities and behaviors can also be improved. There are many problems with the selection, training, and appointment of teachers and administrators. In this context, it should be emphasized that the supervision cannot be a remedy for every problem mentioned.

Parents not only have concerns about schools focusing on academic success while ignoring preparing for life, getting aware of your ownself, digital literacy, physical and social development, research skills and value development but also, at the same time, have concerns about schools failing to achieve their academic goals. Although this does seem like a contradiction, the goals of schools include both achieving academic success and helping the children socialize and have good communication skills as expected. Parents are also concerned about the development of their children, both academically and socially, while also worrying about whether they will be bullied at and/or outside school, whether they can be fed cheaply, healthily at school, and whether the teachings of the school satisfy the personal characteristics of their children. Accordingly, it can be said that what parents expect is actually in line with the Fundamental Law of National Education Numbered 1739 which encourages the upbringing of a child as a whole. However, international indicators such as PISA and TIMSS (ERI, 2018; MoNE, 2018; OECD, 2019; TEA, 2017; 2018) and Higher Education Institutions Exam (ÖSYM, 2019) indicate that academic success has not been achieved. According to the participating parents, middle schools do not improve students' social and communication skills either. All in all, parents are concerned about the ineffectiveness of public schools both academically and socially. Accordingly, it can be specified that parents are concerned about the ineffectiveness of schools. Some parents send their children to private schools because they think private schools are more effective (Aslanargun & Emiroğlu, 2011). According to MoNE data (MoNE, 2016; 2019), the number of students attending private schools is constantly increasing. For example, while the number of students attending private schools for middle school education was 472.611 (11.1%) in the 2015-2016 academic year, it was 581.693 (13.7%) in the 2018-2019 academic year. One of the reasons why parents, whose numbers are increasing every year, are likely to send their children to private middle schools is their concerns about the ineffectiveness of public schools. In addition to private schools, the old private tutoring schools, which are thought to support students' academic/exam success, were decided to be shut down in 2019 but still operates under the name of the study center in 2020. In other words, concerned parents send their children to private schools or study centers or both depending on their economic conditions. Apart from this, parents who think that the schools are only concerned with the academic success of their children send their children to art and sports courses irrespective of what type of schools their children go to, let it be a private or public school, provided that

their financial conditions allow them to do so. The statement that needs to be highlighted in the last sentence is the expression "provided that their financial conditions allow them to do so" because those who can afford an education outside of the school stifle their concerns by taking the education that is not given at school elsewhere whereas those who cannot afford such an education continue to worry about their children.

Another source of concern about school is the insufficiency of school-family cooperation. Parents expect from the school and teachers not only to hear their children's problems but also to hear suggestions for solutions to these problems and to cooperate to solve the problems. While parents are waiting for schools to solve their children's problems, they are worried that the school will refer the problems to them and that they will not have been equipped with the right gear to solve the problems themselves as parents. These findings are in line with the finding of Ünal, Yıldırım, and Çelik (2010) that the principal and teachers see parents as uninterested parties on the one hand, and on the other hand do not see them as their partners and expect parents to do only what they say. Parents do not expect to be told about the problem of their children but expect the school to solve their problem, or at least to solve it with the school. Apart from indifferent parents, the expectations of the participating parents can be said to be justified. When professionals who are paid for and knowledgeable about education refer to the problem of the child to the parent instead of solving the problem themselves, they are unfair to the parents and this application has a low potential to solve the student's problem.

Parents' concerns about their children finding jobs for the future also shape their academic expectations from their children. In their studies, Yurttaş Kumlu, and Çobanoğlu (2019) showed that parents considered academic courses more important because these courses directly affected the success of the central exams. The education of the individual affects the quality of their economic activities and the possibility of finding a job and also as the level of education increases, the employability increases proportionately (Kavak, 1997). Considering the above-mentioned arguments and also the magnitude of the unemployment rate of the young population in Turkey, it can be claimed that it is quite natural that parents place great importance in academic courses and central exams (TSI, 2019). Also, in their studies, Coşkun (2018) and Hill et al., (2019) concluded that students with research skills (thinking/problem solving, independent learning, research/knowledge access, time management, laboratory skills) are more likely to be able to solve future problems. Similarly, parents have voiced their concerns about schools failing to imbue their children with skills similar to the 21st-century skills in general. In this regard, parents can be said to have concerns because they expected the education system and schools to follow the economic, social and technological developments closely and to raise their kids accordingly, however, the systems did not meet their expectations and the society did not/could not support the education system.

In the light of the discussions, it can be said that the parents whose children study in the middle school have concerns about the education of their children, mainly due to failing to trust the education system, school, school employees such as principals and teachers. To overcome these concerns of parents, MoNE may cooperate with universities and implement practices to ensure that teachers and administrators continue their professional development after their selection and appointment. In addition to not trusting the education system, school, school principal and teachers, parents expect their children to be trained academically, psychologically and socially per their children's personality characteristics, however, they are concerned that their expectations are not met, and their children are not subject to an education which help them achieve success and increase their employability chance. To remedy these concerns, the importance of developing a school theory in Turkey should

be thoroughly stressed. Thanks to this theory, the perception of a good school, a good manager and a good teacher can be clarified by revealing what and how to teach in school. Otherwise, there will be a constant concern and criticism about what the school and teacher do and what they should do.

Although it can be thought that the results of this research cannot be generalized due to the usage of qualitative research method, it can be asserted that the findings reflect the concerns of middle school parents about their children based on the fact that the findings are in line with the literature and researchers' expectations. However, the fact that the study was conducted in a big city like Istanbul, the absence of participants representing villages, towns, and parents of disabled students in the study group constitutes the limitation of the study. Therefore, it is possible to identify different parental concerns through studies where different study groups and research methods are used. Also, the identified parental concerns will likely be different for each school according to the environment and parental characteristics. For this reason, evaluating the prevalence of the concerns identified in this study through making use of quantitative methods at the regional and school levels can help education policymakers, school administrators, and practitioners in direct contact with students and parents in preventing and solving problems.

#### **Ethics Committee Approval**

We declare that the research was conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. There is no conflict of interest in the research. The study approved by Social and Humanities Research and Publication Ethics Committee of Necmettin Erbakan University on decision 2020/36 on 8<sup>th</sup> May, 2020. The authors received no financial support for the authorship, research, and/or publication of this article.



## References

- Abu, N. K., Bacanak, A., & Gökdere, M. (2016). Öğretmen Adaylarının Türk Eğitim Sisteminin Sorunlarına İlişkin Görüşlerinin İncelenmesi [Prospective teachers' views about the problems of Turkish Educational System]. *Amasya Üniversitesi Eğitim Fakültesi Dergisi* [Amasya Education Journal], 5(1), 287-307. doi:10.17539/aej.07102
- Algarvio, S., & Leal, I. (2016). Parental concerns definitions: A literature review. *Psicologia, Saúde e Doenças*, 17(3), 423-440. doi: 10.15309/16psd170310
- Aslanargun, E., & Emiroğlu, H. (2011). Anne-babaların çocuklarını özel okula gönderme nedenleri [Internet]. Paper presented at I. International Education Programs and Teaching Congress, Eskişehir, Turkey. Retrieved from [https://www.pegem.net/akademi/kongrebildiri\\_detay.aspx?id=128457](https://www.pegem.net/akademi/kongrebildiri_detay.aspx?id=128457)
- Burgess, S., Greaves, E., Vignoles, A., & Wilson, D. (2014). What parents want: School preferences and school choice. *The Economic Journal*, 125(587), 1262-1289. doi: 10.1111/eoj.12153
- Bursalıoğlu, Z. (1994). *Eğitim yönetiminde yeni yapı ve davranış* (9ht. ed.). Ankara, Turkey: Pegem Akademi Yayıncılık.
- Can, E., 2019. Öğretmenlerin meslekî gelişimleri: Engeller ve öneriler [Professional Development of Teachers: Obstacles and Suggestions]. *Eğitimde Nitel Araştırmalar Dergisi* [ENAD] 7(4), 1618-1650. doi: 10.14689/Issn.2148-2624.1.7c.4s.14m
- Coldron, J., & Boulton, P. (1991). "Happiness" as a criterion of parents' choice of school. *Journal of Education Policy*, 6(2), 169-178. doi: 10.1080/0268093910060205
- Coşkun, L. (2018). *İlkokul 4. sınıflarda fen bilimleri dersinin araştırmaya dayalı öğrenme yaklaşımıyla işlenmesi: Bir eylem araştırması* [Conducting science classes through inquiry-based approach in a fourth grade primary school classes: an action research] (Master's thesis, Hacettepe University, Ankara, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>
- Çalikoğlu, H. Ö., & Başar, M. A. (2019). Öğretmen Adaylarının Türk Eğitim Sistemine İlişkin Metaforik Algıları. [Prospective teachers' metaphorical perceptions regarding Turkish Education System]. *Trakya Eğitim Dergisi* [Trakya Journal of Education], 9(4), 892-906. doi:10.24315/tred.537471
- Çetin, A., & Ünsal, S. (2018). Merkezi sınavların öğretmenler üzerinde sosyal, psikolojik etkisi ve öğretmenlerin öğretim programı uygulamalarına yansımaları [Social, psychological effects of central examinations on teachers and their reflections on teachers' curriculum implementations]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* [Hacettepe University Journal of Education], 34(2), 304-323. doi: 10.16986/HUJE.2018040672
- Demir, S. B., & Yılmaz T. A. (2019). En iyisi bu mu? Türkiye'de yeni ortaöğretime geçiş politikasının velilerin görüşlerine göre değerlendirilmesi [Is this the best one? An Evaluation of new policy of transition to secondary education in Turkey with regard to parents' views]. *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi* [BAİBUEF], 19(1), 164-183. doi: 10.17240/aibuefd.2019.19.43815-445515

- Education Reform Initiative [ERI] [Internet]. Eğitim izleme raporu 2017-2018. [cited 2019 Oct 22]. Retrieved from <http://www.egitimreformugirisimi.org/egitim-izleme-raporu-2017-18-2/>
- Education Reform Initiative [ERI] [Internet]. Eğitimin Yönetişimi Ve Finansmanı Eğitim İzleme Raporu 2019. [cited 2019 Oct 15]. Retrieved from [https://www.egitimreformugirisimi.org/wpcontent/uploads/2010/01/EIR\\_E%C4%9Fitimin\\_Y%C3%B6netisi\\_mi\\_ve\\_Finansman%C4%B1.pdf](https://www.egitimreformugirisimi.org/wpcontent/uploads/2010/01/EIR_E%C4%9Fitimin_Y%C3%B6netisi_mi_ve_Finansman%C4%B1.pdf)
- Francis, B., & Archer, L. (2005). British-Chinese pupils' and parents' constructions of the value of education. *British Educational Research Journal*, 31(1), 89-108. doi: [10.1080/0141192052000310047](https://doi.org/10.1080/0141192052000310047)
- Gedikoğlu, T. (2005). Turkish education system in the process of European Community: Problems and solutions. *Mersin University Journal of the Faculty of education*, 1(1), 66-80.
- Hill, M. A., Overton, T. L., Thompson, C. D., Kitson, R. R., & Coppo, P. (2019). Undergraduate recognition of curriculum-related skill development and the skills employers are seeking. *Chemistry Education Research and Practice*, 20(1), 68-84. doi: [10.1039/C8RP00105G](https://doi.org/10.1039/C8RP00105G)
- İlmak, S. [Internet]. Fen Lisesi manzaralı ev arıyorum! [cited 2019 Dec 12]. Retrieved from: <https://www.gazetepusula.net/2017/09/29/fen-lisesi-manzarali-ev-ariyorum/>
- Kasapoğlu, H. (2016). Analysis of teacher candidates perception's of Turkish national education system through metaphors. *Educational Administration: Theory and Practice*, 22(1), 59-80. doi: [10.14527/kuey.2016.003](https://doi.org/10.14527/kuey.2016.003)
- Kavak, Y. (1997). Eğitim, istihdam ve işsizlik ilişkileri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* [Hacettepe University Journal of Education] 8(13), 21-26.
- Keskin, H. D., & Turna, G. B. (2010). Ailelerin devlet ya da özel okul tercihlerini etkileyen faktörler Rize örneği [Factors influencing parents' private or public school choice: The case of Rize]. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* [Journal of Çukurova University Institute of Social Sciences], 19(2), 411-426. Retrieved from <https://dergipark.org.tr/en/pub/cusosbil/issue/4384/60209>
- Korlu, Ö. Toplumsal eşitsizlikler ortaöğretime nasıl yansıyor? Fikir Turu. [cited 2019 Dec 26]. Retrieved from <https://fikirturu.com/2019/12/26/toplumsal-esitsizlikler-ortaogretime-nasil-yansiyor/>
- Kömüş, M. (2019). Eğitimde sınıfsal fark. BİRGÜN. [cited 2019 Nov 28]. Retrieved from <https://www.birgun.net/haber/egitimde-sinifsal-fark-281939>
- Maruyama, Y., Kanoh, H., & Adachi, K. (2017). A Preliminary Investigation into Parents' Concerns about Programming Education in Japanese Primary Schools. *In Society for Information Technology & Teacher Education International Conference* (s. 44-49). Association for the Advancement of Computing in Education (AACE).
- Merriam, S. B. (2013). *Nitel araştırma: Desen ve uygulama için bir rehber*. (Selahattin Turan, Trans). Ankara, Turkey: Nobel akademik yayıncılık.
- Ministry of National Education [MoNE]. Milli Eğitim İstatistikleri: Örgün Eğitim 2018/19. [cited 2019 Dec 17]. Retrieved from

[https://sgb.meb.gov.tr/meb\\_iys\\_dosyalar/2019\\_09/30102730\\_meb\\_istatistikleri\\_orgun\\_egitim\\_2018\\_2019.pdf](https://sgb.meb.gov.tr/meb_iys_dosyalar/2019_09/30102730_meb_istatistikleri_orgun_egitim_2018_2019.pdf)

Ministry of National Education [MoNE] [Internet]. 2019 Ortaöğretim Kurumlarına İlişkin Merkezi Sınav. Milli Eğitim Bakanlığı, Eğitim Analiz ve Değerlendirme Raporları Serisi No: 7. [cited 2019 Dec 16]. Retrieved from <https://www.memurlar.net/common/news/documents/837830/dosya.pdf>

Ministry of National Education [MoNE] [Internet]. Milli Eğitim Bakanlığı 2019-2023 Stratejik Planı. [cited 2019 Dec 16]. Retrieved from [http://www.meb.gov.tr/stratejik\\_plan/](http://www.meb.gov.tr/stratejik_plan/)

Ministry of National Education [MoNE] [Internet]. PISA 2018 Türkiye Ön Raporu. [cited 2019 Dec 15]. Retrieved from

[http://www.meb.gov.tr/meb\\_iys\\_dosyalar/2019\\_12/03105347\\_PISA\\_2018\\_Turkiye\\_On\\_Raporu.pdf](http://www.meb.gov.tr/meb_iys_dosyalar/2019_12/03105347_PISA_2018_Turkiye_On_Raporu.pdf)

Ministry of National Education [MoNE] [Internet]. 2023 Eğitim Vizyonu. Milli Eğitim Bakanlığı. [cited 2019 Dec 15]. Retrieved from [http://2023vizyonu.meb.gov.tr/doc/2023\\_EGITIM\\_VIZYONU.pdf](http://2023vizyonu.meb.gov.tr/doc/2023_EGITIM_VIZYONU.pdf)

Ministry of National Education [MoNE] [Internet]. Milli Eğitim İstatistikleri: Örgün Eğitim 2015/16. [cited 2019 Dec 14]. Retrieved from

[https://sgb.meb.gov.tr/meb\\_iys\\_dosyalar/2016\\_03/30044345\\_meb\\_istatistikleri\\_orgun\\_egitim\\_2015\\_2016.pdf](https://sgb.meb.gov.tr/meb_iys_dosyalar/2016_03/30044345_meb_istatistikleri_orgun_egitim_2015_2016.pdf)

Ng, P. T. (2019). *Singapur eğitim sistemi: Zıtlıkların gücü*. (A.Ünal ve Ü.Cura, Trans). Ankara, Turkey: Anı Yayıncılık.

OECD. Bir bakışta eğitim: OECD Göstergeleri Türkiye Raporu. [cited 2019 Dec 14]. Retrieved from <https://www.oecd.org/education/skills-beyond-school/EAG2017CN-Turkey-Turkish.pdf>

ÖSYM. (2019). Yüksek Öğretim Kurumları Sınavı Sayısal Bilgiler. [cited 2019 Dec 13] Retrieved from <https://dokuman.osym.gov.tr/pdfdokuman/2019/YKS/sayisalbilgiler18072019.pdf>

Özdemir, F., & Kaplan, A. (2017). Öğretmen adaylarının bakış açısından Türk Eğitim Sisteminin sorunları ve bu sorunlara yönelik çözüm önerileri [Problems of Turkish Education System and solution proposals for these problems according to the perspective of prospective teachers]. *Electronic Turkish Studies*, 12(28). doi: /10.7827/TurkishStudies.12426

Özyılmaz, Ö. (2017). *Türk milli eğitim sisteminin sorunları ve çözüm arayışları*. (6.ed.). Ankara, Turkey: Pegem Akademi.

Park, J. (1994). *Estimation of sheepskin effects and returns to schooling using the old and the new cps measures of educational attainment* (No. 717). Princeton University, Department of Economics, Industrial Relations Section.

Pulat, A. (2019). *İlkokul velilerinin özel okul tercihlerine etki eden faktörlerin incelenmesi* [The study of influencing factors on parents' private school preferences] (Master's thesis, İstanbul Sabahattin Zaim üniversitesi, İstanbul, Turkey). Retrieved from <https://tez.yok.gov.tr/UlusalTezMerkezi/>

Restall, G., & Borton, B. (2010). Parents' concerns about their children's development at school entry. *Child: Care, Health & Development*, 36(2), 208-215. doi:10.1111/j.1365-2214.2009.01019.x

- Rubie-Davies, C. M., Peterson, E., Irving, E., Widdowson, D., & Dixon, R. (2010). Expectations of achievement: Student teacher and parent perceptions. *Research in Education*, 83(1), 36-53. doi: [10.7227/RIE.83.4](https://doi.org/10.7227/RIE.83.4)
- Ryan, C. S., Casas, J. F., Kelly-Vance, L., Ryalls, B. O., & Nero, C. (2010). Parent involvement and views of school success: The role of parents' Latino and White American cultural orientations. *Psychology in the Schools*, 47(4), 391-405. doi: [10.1002/pits.20477](https://doi.org/10.1002/pits.20477)
- Saçkes, M. (2013). Children's competencies in process skills in kindergarten and their impact on academic achievement in third grade. *Early Education & Development*, 24(5), 704-720.
- Saçkes, M. (2014). How often do early childhood teachers teach science concepts? Determinants of the frequency of science teaching in kindergarten. *European Early Childhood Education Research Journal*, 22(2), 169-184. doi: [10.1080/1350293X.2012.704305](https://doi.org/10.1080/1350293X.2012.704305)
- Sarpkaya, R. (Eds.). (2014). *Türk eğitim sistemi ve okul yönetimi*. Ankara, Turkey: Anı Yayıncılık.
- Schneider, M., Teske, P., Marschall, M., & Roch, C. (1998). Shopping for schools: In the land of the blind, the one-eyed parent may be enough. *American Journal of Political Science*, 42, 769-793. doi: [10.2307/2991729](https://doi.org/10.2307/2991729)
- Schnepf S.V., Klinger D.A., Volante L., & Jerrim J. (2019) Cross-National trends in addressing socioeconomic inequality in education. In: Volante L., Schnepf S., Jerrim J., Klinger D. (eds) *Socioeconomic Inequality and Student Outcomes*. Education Policy & Social Inequality, 4. Springer, Singapore.
- Slater, A., Bowen, J., Corsini, N., Gardner, C., Golley, R., & Noakes, M. (2010). Understanding parent concerns about children's diet, activity and weight status: an important step towards effective obesity prevention interventions. *Public Health Nutrition*, 13(8), 1221-1228. doi: [10.1017/S1368980009992096](https://doi.org/10.1017/S1368980009992096)
- Spera, C., Wentzel, K. R., & Matto, H. C. (2009). Parental aspirations for their children's educational attainment: Relations to ethnicity, parental education, children's academic performance, and parental perceptions of school climate. *Journal of Youth and Adolescence*, 38(8), 1140-1152. doi: [10.1007/s10964-008-9314-7](https://doi.org/10.1007/s10964-008-9314-7)
- Taşkın, G., & Aksoy, G. (2018). Öğrencilerin ve Öğretmenlerinin TEOG Sistemi Görüşleri Işığında Ortaöğretime Geçiş Sisteminden Beklentileri [Students' and teachers' expectations from the transition to secondary education system in the light of TEOG system views of them]. *International Journal of Active Learning*, 3(1), 19-43. Retrieved from <https://dergipark.org.tr/en/pub/ijal/issue/35833/367421>
- Turkish Education Association [TEA] [Internet]. 2017 Eğitim değerlendirme raporu. [cited 2019 Dec 24 Retrieved from <https://tedmem.org/download/2017-egitim-degerlendirme-raporu?wpdmdl=2564&refresh=5e4ed137294e51582223671>
- Turkish Education Association [TEA] [Internet]. 2018 Eğitim değerlendirme raporu. [cited 2019 Dec 25] Retrieved from <https://tedmem.org/download/2018-egitim-degerlendirme-raporu?wpdmdl=2933&refresh=5e4ecc892a31b1582222473>
- Turkish Education Association [TEA]. *Ortaöğretime ve yükseköğretime geçiş sistemi*. Ankara: Türk Eğitim Derneği Yayınları; 2010.

- Turkish Statistical Institute [TSI] [Internet]. İşgücü İstatistikleri - Dönemi: Eylül 2019. [cited 2019 Nov 27 Retrieved from [http://www.tuik.gov.tr/PreTablo.do?alt\\_id=1007](http://www.tuik.gov.tr/PreTablo.do?alt_id=1007)
- Ünal, A. (2018). Okulda denetim ve rehberlik hizmetlerinin yönetimi. (N.Cemaloğlu, M.G. Gülcan, eds.), *Kuramdan Uygulamaya Okul Yönetimi*. Ankara, Turkey: Pegem A Yayıncılık.
- Ünal, A., & Sürücü, A. (2018). PDR öğrencilerinin gözünden Türk Eğitim Sistemi'nin sorunları. IV. International Academic Research Congress 30 October-3 November, 2018 in (2057-2064).
- Ünal, A., Yıldırım, A., & Çelik, M., (2010). İlköğretim Okulu Müdür ve Öğretmenlerinin Velilere İlişkin Algılarının Analizi [Analysis of perceptions of primary school principals and teachers about parents]. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 23, 261-272.
- Wentzel, K. R. (1998). Parents' aspirations for children's educational attainments: Relations to parental beliefs and social address variables. *Merrill-Palmer Quarterly*, 44(1), 20-37. Retrieved from [www.jstor.org/stable/23093391](http://www.jstor.org/stable/23093391)
- Yeşil, R., & Şahan, E. (2015). Öğretmen adaylarının türk eğitim sisteminin en önemli sorun, neden ve çözüm yollarına ilişkin algıları [Perceptions of teacher candidates about the most important problem of Turkish Education System, its reason and its solutions]. *Journal of Kirsehir Education Faculty*, 16(3), 123-143.
- Yıldırım, A., & Şimşek, H. (2016). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara, Turkey: Seçkin Yayıncılık.
- Yılmaz, K. & Altınkurt, Y. (2011). Öğretmen adaylarının Türk eğitim sisteminin sorunlarına ilişkin görüşleri. [Prospective teachers' views about the problems of Turkish Educational System]. *Uluslararası İnsan Bilimleri Dergisi*, 8(1), 942-973.
- Yurttaş Kumlu, G. & Çobanoğlu, R. (2019). Çocukların eğitiminde merkezi sınav başarısı ile ilgili dersler daha mı önemli? Aile görüşü ve ilişkili faktörler [Are school courses related to central exam success more important in children's education? Parental view and related factors]. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 1-22. doi: [10.9779/pauefd.561551](https://doi.org/10.9779/pauefd.561551)
- Zachos, D. T. & Panagiotidou, A. (2019). Roma Parents' Perceptions on Education. *Journal of Advances in Education Research*, 4(1), 13-23. doi: [10.22606/jaer.2019.41002](https://doi.org/10.22606/jaer.2019.41002)

## The Relationship of Autonomous Motivation to Prosocial Behavior: Mediator Role of Prosocial Friends and Friendship Quality among Turkish Adolescents\*

Yusuf Bayar<sup>1</sup>

*Necmettin Erbakan University*

Melike Sayıl<sup>2</sup>

*TED University*

Yeliz Kındap Tepe<sup>3</sup>

*Ondokuz Mayıs University*

### Abstract

The aim of this study was to investigate the roles of friends and friendship quality as two possible mediators to elucidate the underlying processes that link the autonomous motivation and prosocial behaviors among adolescents in Turkey. Participants were 419 adolescents who were in 9th grade students (Mage = 14.37 years, SD = .35) and selected from different high schools located central regions of the city. Adolescents completed questionnaires regarding their prosocial self-regulation, prosocial friends, friendship quality and other-oriented prosocial behaviors. The results of the study demonstrated that autonomous motivation in prosocial behavior was related to increasing in other-oriented prosocial behaviors by having more prosocial friends and more positive friendship quality for boys and by having more positive friendship quality for girls.

### Key Words

Autonomous motivation, Prosocial behavior, Prosocial friends, Friendship quality

\* This research was funded by The Scientific and Technological Research Council of Turkey (TÜBİTAK SOBAG-108K155).

<sup>1</sup> **Correspondance to:** Assist. Prof. Dr., Necmettin Erbakan University, Department of Social Sciences and Humanities, Konya, Turkey. E-mail: ybayary@gmail.com **ORCID:** 0000-0002-9778-4133

<sup>2</sup> Prof. Dr., TED University, Department of Science and Letters, Ankara, Turkey. E-mail: melike.sayil@tedu.edu.tr **ORCID:** 0000-0002-3512-9758

<sup>3</sup> Assoc. Prof. Dr., Ondokuz Mayıs University, Department of Science and Letters, Samsun, Turkey. E-mail: yelizkindap@gmail.com **ORCID:** 0000-0003-0963-810X

**Citation:** Bayar, Y., Sayıl, M., & Kındap Tepe, Y. (2020). The relationship of autonomous motivation to prosocial behavior: Mediator role of prosocial friends and friendship quality among Turkish adolescents. *Research on Education and Psychology (REP)*, 4(1), 98-113.



Several studies demonstrated that neither rewarding adolescents for prosocial behaviors nor forcing them to behave prosocially had proven an effective strategy for maintaining and promoting prosocial behavior. By contrast, it was commonly observed that such strategies decreased rather than increased the frequency of prosocial behaviors (Fabes, Fultz, Eisenberg, May-Plumlee, & Christopher, 1989; Frey & Jegen, 2001; Kunda & Schwartz; 1983). The researchers suggested that these somewhat unexpected results related to the characteristics of reward and coercion, which might diminish the pleasure and the value of doing a prosocial act.

A group of researchers emphasized the role of motivation in the incidence of prosocial behaviors (Finkelstein, Penner, & Brannick, 2005; Grube & Piliavin, 2000; Reykowski & Smolenska, 1980), and some of them investigated the importance of autonomous motivation within the scope of Self Determination Theory (SDT). According to the self-determination theorists, autonomous motivation is a powerful force to activate behaviors. Thus, these behaviors give more pleasure than the externally motivated ones (Deci & Ryan, 2000; Ryan & Deci, 2000). Therefore, individuals who have autonomous motivation do not come into action to earn a reward or avoid a punishment. In contrast, the reason for their actions is the belief that it is the right thing to do, and it is valuable. Research findings from different cultures supported this idea indicating that individuals who have autonomous motivation in the prosocial behavior domain exhibit more genuine prosocial behaviors (Kindap, 2011; Kindap-Tepe & Aktaş, 2019; Ryan & Connell 1989; Weinstein & Ryan, 2010).

Although it is well established that autonomous motivation and prosocial behaviors are in relation (Ryan & Connell 1989; Ryan & Deci 2000; Weinstein & Ryan, 2010), the possible processes which mediate this relation have not been investigated extensively. In the context of SDT, there are some studies that examine the mediating role of autonomous motivation in the relationship between supportive parenting and adolescents' prosocial behaviors, but researches are frequently conducted in university sample (Gagne, 2003; Roth, 2008). Furthermore, it has been found that how other socializing agents contribute to adolescent prosocial behavior has not been studied. Although this is somewhat understandable given the importance of mothers in the socialization of children and young adolescents, future research must examine the role of fathers, extended family members, peers, and the broader social context in which the youth live (Knight & Carlo 2012). The present study aims to contribute to fill this gap in the literature by investigating the role of prosocial friends and friendship quality as possible explanatory mechanisms for the relationship between adolescents' autonomous motivation and their prosocial behaviors. The present research especially focuses on this type of prosocial behaviors since the characteristics of altruistic behaviors were found to be related more likely to the autonomous motivation. For example, selfish or self-oriented prosocial behaviors are enacted for the sake of others' approval and appreciation, while altruistic or other-oriented prosocial behaviors are performed to meet other's needs and inclinations. Some research findings also have revealed that external motivation predicts self-oriented and autonomous motivation predicts other-oriented helping behaviors (Kindap, 2011; Roth, 2008).

The SDT emphasizes the importance of not only motivation of behaviors but also the context, in which such motivation can be displayed. According to the theory, individuals are surrounded with factors that improve or impair their autonomous motivation. Relations with parents and peers, and neighborhood and school contexts are some examples of these factors. The SDT asserts that autonomous motivation should be considered together with these factors (Ryan & Deci, 2000). Some theorists argue that close relationships with family members are critical factors for the evolution of prosocial skills (Grusec & Goodnow, 1994; Hoffman, 1983) whereas others focus on

the effects of positive relationships with peers (Piaget, 1965; Sullivan, 1953). Indeed, numerous studies showed the role of friends as an important socialization agent in the prosocial behaviors (Barry & Wentzell, 2006, Wentzel, 2014), and in moral development (Azmitia & Montgomery, 1993; Nelson & Aboud, 1985). For example, in a longitudinal study, prosocial friends in the sixth grade predicted the prosocial behavior tendencies in the eighth grade (Wentzel, Barry, & Caldwell, 2004). Another study demonstrated that adolescents tend to act similarly to their prosocial friends when they have strong and positive bonds with those friends (Barry & Wentzel, 2006). Studies on volunteering behaviors also have suggested that adolescents are more likely to engage in prosocial behaviors if their friends value or demonstrate these same behaviors. Studies have reported concurrent associations between adolescents' perceptions of their own self-reported volunteering behaviors and their friends' volunteering behaviors (Choukas-Bradley, Giletta, Cohen, & Prinstein; 2015, Law, Shek, & Ma, 2013; van Goethem et al., 2014). The above mentioned results revealed that willingness to behave like friends and having qualitative relations with these friends are effective on the other-oriented prosocial behaviors.

Theoretical models which are suggested to explain the process of the influence of friend / friendship are scant (Hartup & Stevens, 1997). However, some researchers have adopted a social learning perspective to explain this process (e.g., Berndt, Hawkins, & Jiao 1999; Wentzel et al., 2004). For instance, adolescents might develop some interests or specific behavioral styles when these are considered to be desirable characteristics of close friends of adolescents (Bukowski & Hoza, 1989; Hartup & Stevens, 1997). Particularly, observational learning theory (Bandura, 1986) suggests that an adolescent is likely to behave like his / her friend eventually when a friend models certain types of behavior, because exposure to modeled behavior is frequent and affectively charged. Moreover, friendships are characterized by robust emotional bonds; hence it is plausible that friends might mimic each other's behavior especially during adolescence (Berndt & Perry, 1986). Therefore, the influences of friends most likely occur especially in two circumstances. Firstly, when the affective quality of a friendship is high, such that the friends provide an important source of nurturance to the adolescent, and secondly, the interaction frequency and friendship stability between the adolescent and his / her friends is high, such that they spend a significant amount of time together (Barry & Wentzel, 2006).

The Peer Influence Model (Elliot, 1994) also suggests that peers strongly influence adolescent to behave like others. But another theoretical model, The Individual Characteristic Model (Gottfredson & Hirschi, 1990), does not acknowledge the role peer influence on adolescent behaviors. On the contrary model assumes that adolescents befriend with others who are very similar to them. Although these models enhanced our understanding the delinquency, they can also be functional to understand the development of prosocial behavior.

In fact, by taking into account these models together, it is possible to say that autonomous motivated individuals could select prosocial friends and could have positive friendship quality (The Individual Characteristic Model) and on the other hand, individuals who select prosocial friends and who have positive friendship quality could more likely behave prosocially (The Peer Influence Model).

Consequently, the present research proposed that having prosocial friends and maintaining a qualified friendship are conducive to expected behaviors asserted by SDT. Indeed, it is expected that the adolescents who have autonomous motivation for prosocial behaviors will act more prosocial in appropriate context. Testing this hypothesis in a non-western culture is a unique aspect of the study.



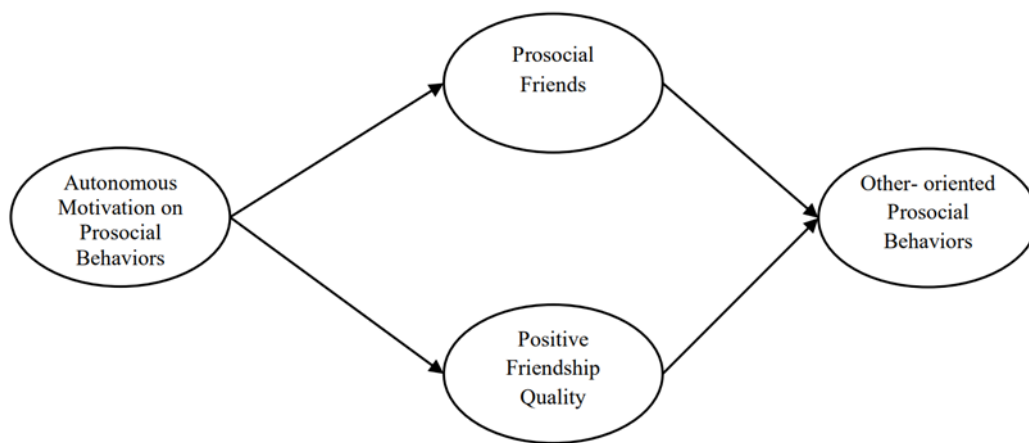
Based on individualism-collectivism understanding, it could be asserted that other oriented prosocial behaviors would emerge mostly as a result of autonomous motivation in individualistic societies, and it would emerge generally as a result of obedience or compliance in more collectivistic societies. However, it is also possible to assert from the SDT perspective that autonomous motivation is universal and breeds other oriented prosocial behaviors in both individualistic and collectivistic cultures (Deci & Ryan, 2000). Therefore, our main purpose is to understand whether autonomous motivation has a role in prosocial acts among adolescents and friendship context promotes these behaviors.

In conclusion, the aim of this study is to investigate the roles of friends and friendship quality as two possible mediators to elucidate the underlying processes that link autonomous motivation and prosocial behaviors among adolescents in Turkish culture. In accordance with this view, our specific hypothesis is that autonomous motivation in the prosocial behavior domain increases the frequency of the other oriented prosocial behaviors as a consequence of prosocial friends and friendship quality.

An extensive review of the related literature reveals gender differences in frequency of prosocial behaviors (Bayar & Uçanok, 2019; Carlo, Fabes, Laible, & Kupanoff, 1999; Fabes et al., 1989; Kindap; 2011; Kindap-Tepe & Aktaş, 2019; Kumru, Carlo, & Edwards, 2004), number of prosocial friends (Kindap, Sayıl, & Kumru, 2008; Kumru et al., 2004), and quality of positive friendship (Bayar & Uçanok, 2019; Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2008) in favor of girls. Therefore, in this study it was examined whether gender moderates the mediation model (see Figure 1).

Figure 1

*Proposed Model*



**Method**

**Study Group**

This study was a part of a research project (Sayıl & Kindap, 2009). The participants were 419 (201 boys and 218 girls) adolescents from urban families. They were selected randomly from among 9th graders in different schools in Ankara, the capital city of Turkey. The age range of adolescents was between 13.5 and 15.5 (mean age 14.35; SD = .30) for girls; 13.67 and 15.75 (M age 14.37; SD = .35) for boys. The education level of the participants' fathers (50.3 % high school, 13.7 % college, 10.6 % middle school) is higher than the mothers (38.3

% high school, 26.9 % middle school, 16.3 % primary school). The ages of the parents ranged from 31 to 58 ( $M = 41.44$ ,  $SD = 4.54$ ) for mothers and from 34 to 67 ( $M = 45.23$ ,  $SD = 4.88$ ) for fathers. Adolescents (67.2 %) perceived themselves as belonging to middle socioeconomic status.

### Procedure

The research was conducted in accordance with the ethical standards of Hacettepe University Ethics Commission. Scales were administered to the students during class time. The students were informed about the study and instructed on how to fill out the questionnaires. They were informed that participating in the research was voluntary, and active informed consent was obtained from their parents. Moreover, the students were ensured for privacy.

### Data Collection Tools

*Prosocial Self-Regulation Questionnaire (SRQ-P; Ryan & Connell, 1989)*. The questionnaire contains 5 situations and 5 possible answers for each of these situations. For example, adolescents are asked why they would help someone in distress. Possible answers varied from external to identified regulation, e.g. "because I'd get in trouble if I did/did not" (external), "because I'd feel bad about myself if I did/did not" (introjected), and "because I think it is important to..." (identified). Participants were asked to rate their regulation on a 6-point Likert type scale from 1 (strongly disagree) to 6 (strongly agree). The scale was adapted to Turkish by [Kindap-Tepe and Sayil \(2018\)](#). For this study, only the identified regulation subscale that represents the autonomous motivation was used and Cronbach's alpha reliability of the subscale was .87.

*Prosocial Friends Scale (Tilton-Weaver & Galambos, 2003)*. This scale measures adolescents' affiliation with prosocial friends on a 4 point Likert type scale, where 1 denotes strongly disagree and 4 strongly agree. It contains 4 items (eg., My closest friends almost always show responsible behavior.). The Cronbach's alpha reliability of the adapted scale was .70 ([Sayil et al., 2012](#)).

*Aggressive and Prosocial Behavior Questionnaire (Boxer, Tisak, and Goldstein, 2004)*. The questionnaire assesses the levels of different subtypes of prosocial (e.g., helping) and aggressive (e.g., hitting) behaviors of respondents on a 6-point scale (ranging from 1- definitely not like me to 6- definitely like me). In this study, only altruistic (eg., I often help people without being asked.) and reactive (eg., When someone puts me in a good mood, I will often help him or her if necessary) subscales were used and the Cronbach's alpha reliabilities of the adapted subscales were .75 and .78, respectively ([Sayil et al., 2012](#)). These subtypes of prosocial acts were named as "other oriented prosocial behaviors" on the perspective of SDT ([Kindap, 2011](#)).

*Friendship Quality Scale (Berndt & Perry, 1986; Bukowski, Hoza, & Boivin, 1994)*. This scale was administered to assess the adolescents' views of the quality of their friendships. It contains 23 items with a 5-point response scale (ranging from 1-Not at all true to 5-really true) and five subscales (companionship, help / support, closeness, security, and conflict). However, it was then commonly used in the form of two subscales as positive (items of companionship, help / support, closeness and security) and negative (items of conflict) friendship qualities ([Brendgen, Markiewicz, Doyle, & Bukowski, 2001](#)). Only the "positive friendship quality" was used for this study (eg., If I have a problem at school or at home, I can talk to my friend about it.). The scale was adapted to Turkish by [Sayil et al. \(2012\)](#), and the Cronbach's alpha reliability of this subscale was .93.

## Findings

### Preliminary Analyses and Gender Differences

In order to examine the effects of gender on study variables, a MANOVA test was conducted. The results suggested significant gender differences, Wilks'  $\lambda = .80$ ,  $F_{(4, 414)} = 20.44$ ,  $p < .001$ ,  $\eta^2 = .20$ . Univariate tests revealed that girls had higher autonomous motivation than boys for prosocial behavior ( $F_{(1, 417)} = 35.68$ ,  $p < .001$ ,  $\eta^2 = .08$ ). In addition, girls had higher positive friendship quality ( $F_{(1, 417)} = 84.41$ ,  $p < .001$ ,  $\eta^2 = .17$ ), more prosocial friends ( $F_{(1, 417)} = 28.66$ ,  $p < .001$ ,  $\eta^2 = .06$ ), and more other-oriented prosocial behaviors ( $F_{(1, 417)} = 29.60$ ,  $p < .001$ ,  $\eta^2 = .07$ ).

The Pearson correlation coefficients, means and standard deviations of the study variables moderately correlated with each other (Table 1). Autonomous motivation in prosocial behavior was positively correlated with positive friendship quality, prosocial friends, and others oriented prosocial behaviors in both girls and boys.

Table 1

*The Pearson correlation coefficients, means and standard deviations of the study variables*

Variables	1	2	3	4	Girls Mean (SD)	Boys Mean (SD)
1. Autonomous motivation	-	.26***	.35***	.33***	5.35 (.66)	4.96 (.70)
2. Positive friendship quality	.27***	-	.22***	.42***	4.31 (.51)	3.78 (.64)
3. Prosocial friends	.49***	.22***	-	.47***	3.38 (.48)	3.12 (.51)
4. Others oriented prosocial behaviors	.38***	.47***	.32***	-	3.21 (.54)	2.93 (.51)

\*\*\* $p < .001$ . Note: Girls are above and boys are below the diagonal.

### Structural Equation Modeling

To test the proposed models, structural equation modeling with latent variables was performed, using AMOS 22 and solutions were generated with maximum-likelihood estimation. The fit of the model was assessed with the statistics of  $\chi^2$  or  $\chi^2/df$ , RMSEA and CFI.  $\chi^2/df$  ratio of 3:1 or less indicates good fit, RMSEA values in close to .08 indicates acceptable fit and CFI values close to .95 indicate good fit. Measurement model was tested in order to determine the validity of the measurement tools before testing the structural equation modeling. The second step was to run multigroup structural equation modeling that included the testing of 4 nested hierarchical models. These models were configural invariance model, weak invariance model, strong invariance model, and strict invariance model. In the *configural invariance model*, it was investigated whether the groups had the same factorial structures. To test the model, numbers of factors and loading patterns were constrained across the groups. In the *weak variance model*, it was investigated whether the groups had the same factor loadings. To test the model, factor loadings were constrained across the groups in addition to numbers of factors and loading patterns. In the *strong invariance model*, it was investigated whether the groups had the same intercept values. To test the model, intercepts were constrained across the groups in addition to numbers of factors, loading patterns and factor loadings. In the *strict invariance model*, it was investigated whether the groups had the same error variances. To test the model, error variances were constrained across the groups in addition to numbers of factors, loading patterns, factor loadings and intercepts (Byrne & Stewart, 2006; Vandenberg & Lance, 2000).

As it has been recommended  $\chi^2$  difference test and differences in CFI was used in order to compare the models. Significant results for the  $\chi^2$  difference test indicate that the model with smaller  $\chi^2$  has a statistically better fit. Besides in the sequence of invariance tests, if two nested models show a decrease in the value of CFI greater than or equal to .01 in magnitude, the more restrictive model should be rejected (Cheung & Rensvold, 2002).

### Measurement Models

In accordance with the recommendations of Anderson and Gerbing (1988), confirmatory factor analysis (CFA) was used to evaluate the measurement model before testing the overall structural model. Four latent constructs were modeled: Autonomous motivation in prosocial behaviors, positive friendship quality, prosocial friends, and other-oriented prosocial behaviors. Positive friendship quality construct was represented by four indicators (companionship, help, closeness and security) and other-oriented prosocial behaviors construct was represented by two indicators (reactive prosocial and altruistic prosocial behaviors). The other constructs were defined by indicator parcels. The latent constructs were allowed to freely inter-correlate. Estimation of the measurement model yielded a good fit with the data,  $\chi^2$  (76,  $N = 419$ ) = 104.12,  $p < .05$ ; CFI = .99, GFI = .96; AGFI = .92; NFI = .97; NFI = .95; RMSEA = .03. All factor loadings were significant ( $p < .001$ ), ranging from .71 to .86 for girls and from .70 to .90 for boys. In sum, reliable measurement models were obtained.

### Multigroup Structural Models

In the structural models, the direct effect of autonomous motivation on prosocial behavior was tested in the first step (Direct Effect Model). Later, prosocial friends and friendship quality were added to the model as mediator variables and the mediational effect model was tested (Mediational Effect Model).

The model fits and model comparisons of *Direct Effect Model* can be seen in Table 2. The configural invariance model, weak invariance model, strong invariance model, and strict invariance model provided good fits to the data. On the other hand,  $\Delta\chi^2$  and  $\Delta\text{CFI}$  obtained from the differences among models indicated that weak invariance model had better fits than strong invariance model, and strong invariance model had better fits than strict invariance model.

Table 2

*Fit Indices for Multigroup Structural Equation Models and Model Comparisons for Direct Effect Model*

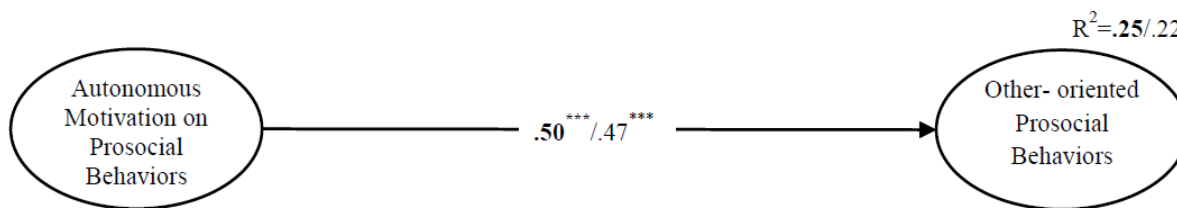
Models	$\chi^2$	df	RMSEA	CFI	$\Delta\text{df}$	$\Delta\chi^2$	$\Delta\text{CFI}$
Configural Invariance Model	17.27	32	.05	.99	-	-	-
Weak Invariance Model	17.30	31	.05	.99	1	.03	-
Strong Invariance Model	66.67	26	.10	.93	5	49.38***	.06
Strict Invariance Model	79.14	21	.09	.92	5	12.46***	.01

\*\*\*  $p < .001$ .

As can be seen in Figure 2 autonomous motivation in prosocial behaviors positively predicted other-oriented prosocial behaviors both for girls ( $\beta = .50$ ,  $p < .001$ ) and boys ( $\beta = .47$ ,  $p < .001$ ) positively. Autonomous motivation explained 25 % and 22 % of the variance in other oriented prosocial behaviors for girls and boys, respectively.

Figure 2

*Direct Effect Model*



\*\*\* $p < .001$ . Bold values refer to girls.

The model fits and model comparisons of *Mediational Effect Model* can be seen in Table 3. The configural invariance model, weak invariance model, strong invariance model, and strict invariance model provided good fits to the data. On the other hand,  $\Delta\chi^2$  and  $\Delta CFI$  obtained from the differences among models indicated that weak invariance model had better fits than strong invariance model, and strong invariance model had better fits than strict invariance model.

Table 3

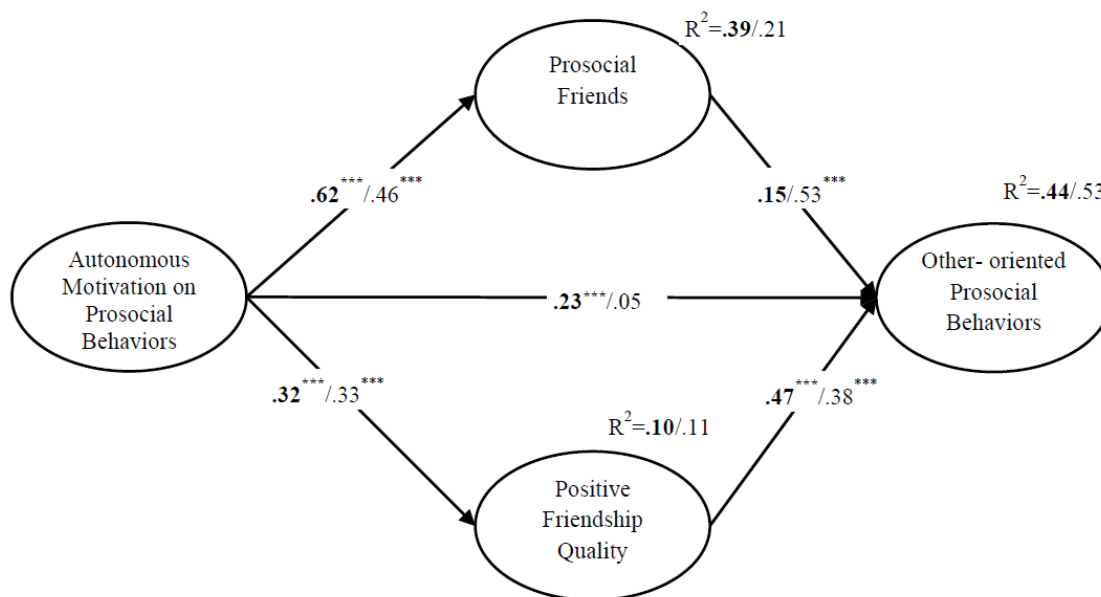
*Fit Indices for Multigroup Structural Equation Models and Model Comparisons Mediational Effect Model*

Models	$\chi^2$	df	RMSEA	CFI	$\Delta df$	$\Delta\chi^2$	$\Delta CFI$
Configural Invariance Model	108.75	76	.03	.98	-	-	-
Weak Invariance Model	113.88	71	.03	.98	5	5.13	-
Strong Invariance Model	234.44	60	.06	.93	11	120.56***	.05
Strict Invariance Model	271.04	49	.06	.92	11	36.60***	.03

\*\*\* $p < .001$ .

As can be seen in Figure 3, both for girls and boys, autonomous motivation on prosocial behaviors positively predicted prosocial friends ( $\beta_{girls} = .62, p < .001$ ;  $\beta_{boys} = .46, p < .001$ ; respectively) and friendship quality ( $\beta_{girls} = .32, p < .001$ ;  $\beta_{boys} = .33, p < .001$  respectively); positive friendship quality positively predicted other-oriented prosocial behaviors ( $\beta_{girls} = .47, p < .001$ ;  $\beta_{boys} = .38, p < .001$ ; respectively). But prosocial friends positively predicted other-oriented prosocial behaviors for only boys ( $\beta_{boys} = .53, p < .001$ ) and autonomous motivation positively predicted other-oriented prosocial behaviors for only girls ( $\beta_{girls} = .23, p < .05$ ). The proposed model accounted for 44 % and 53 % of the variance in other oriented prosocial behaviors for girls and boys, respectively.

Figure 3

*Mediational Effect Model*

\*\*\*  $p < .001$ , \*  $p < .05$ . Bold values refer to girls.

### Discussion

The results of the descriptive analysis indicated that girls had more prosocial characteristics than boys, they had more prosocial friends and their friendships had higher positive qualities. These findings seem to be consistent with the findings of the studies examining the gender differences on prosocial behaviors (Eisenberg, Carlo, Murphy, & Van Court, 1995; Kindap, 2011; Kindap-Tepe & Aktaş, 2019; Kumru et al., 2004), having prosocial friends (Bayar & Uçanok, 2019; Sayıl et al., 2012) and friendship quality (Bukowski et al., 1994; Brendgen, Vitaro, & Bukowski, 2000; Yaban, Sayıl, & Kindap-Tepe, 2013) and in the literature. As expected, girls were more likely than boys to take part in prosocial behaviors in an autonomously motivated way. This finding supported some studies (Steinberg & Silverberg, 1986), yet contradicted with others that were in favor of boys (Noom, Dekovic & Meeus, 2001). Numerous studies conducted in urban populations in Turkey have indicated that women are more autonomous in their attitudes and in their internalization of values, when their general socio-economic and education levels are high (Çileli, 2000; Göregenli, 1995; 1997; İmamoğlu & Karakitapoğlu-Aygün, 1999; Karakitapoğlu-Aygün & İmamoğlu, 2002). This may indicate that urbanization and modernization lead girls to become more autonomous. In fact, it is shown in a recent study in Turkey that mothers with higher education levels and living in big cities encourage their children to become more autonomous (Yağmurlu, Çıtlak, Dost, & Leyendecker, 2009).

In addition to gender differences in study variables, the proposed models demonstrated both similarities and differences in terms of gender. The direct effect model had same patterns for both girls and boys. The results demonstrated that autonomous motivation was related to increase in other oriented prosocial behaviors. The findings seem to be consistent with the theory (Deci & Ryan, 2000) and the literature (e.g. Roth, 2008; Weinstein & Ryan, 2010). Based on SDT (Deci & Ryan, 2000), it could be suggested that autonomous

motivation would promote other oriented prosocial behavior because it is experienced as volitional and it is also based on personal endorsement of the underlying value of the behavior.

The mediational model had some differentiations in terms of gender: Autonomous motivation in the prosocial behavior was related to increase in the other oriented prosocial behaviors as a result of experiencing qualified friendship for girls and boys. However, autonomous motivation was related to increase in the other oriented prosocial behaviors by having more prosocial friends for boys. In other words, although friendship quality had a mediational role for both gender, prosocial friends had a mediational role for boys solely.

On the other hand, although prosocial friends didn't have a mediator role, the correlation coefficients indicated that prosocial friends and other oriented prosocial behaviors were significantly correlated for girls. In addition to this, prosocial friends and positive friendship quality had a full mediator role for boys and only positive friendship quality had a partial mediator role for girls in the model. These findings also support that autonomous motivation had still a direct role on prosocial behaviors even in the presence of prosocial friends and positive friendship quality for girls. Additionally, the full mediator role of prosocial friends and friendship quality for boys indicates that friendship had a more determinant role for their behaviors.

The findings of the study also confirmed the previous findings that adolescents, spending more time in peer groups as a mark of the development period, join groups the members of which are similar to themselves and continue to exhibit the similar behaviors, reinforcing each other (Baker, Milich, & Manolis, 1996; Curran, Stice, & Chassin, 1997). Two key findings need to be emphasized. First, adolescents who have higher autonomous motivation exhibited more prosocial behaviors confirming the universality of internal motivation asserted by Self-Determination Theorists, and second, this association was explained by friendship context consisting prosocial friends and quality friendships. The first one makes explicit that adolescents perform prosocial behaviors not to comply with others, but rather with autonomous motivation. The second one supports the facilitative context effect proposed by SDT and confirms the findings indicating that a close and supportive relationship pattern with peers was related to increase in prosocial behavior tendencies (Carlo et al., 1999).

In our culture, since autonomous and relatedness aspects of the self have been supported equally by the parents (Kağıtçibaşı, 2010), the role of internal motivation in prosocial acts might have been observed and explained by friendship context characteristics. In addition, it was revealed that children who exhibit more prosocial behaviors also show tendencies to affiliate with prosocial peers and to avoid from deviant groups. (Carlo et al., 2014; Padilla-Walker, Carlo, & Nielson, 2015). Prosocial friends and friendship quality accounted for prosocial behaviors, and the effect sizes revealed that these relationships were more powerful in our research than in the studies conducted in individualistic cultures (Barry & Wentzel, 2006; Markiewicz, Doyle, & Brendgen, 2001; Wentzel et al., 2004). For example, in the study of Wentzell et al. (2004), it was demonstrated that friends' prosocial behaviors explained the 17 % of variance of prosocial behaviors. However, in our study, prosocial friends and friendship quality explained the 44 % and 53 % of variance of prosocial behaviors for girls and boys, respectively. Furthermore, the results of this study showed that, when choosing their friends, adolescents with higher autonomous motivation might also choose peers with a potential for exhibiting prosocial behaviors, and they establish more qualified friendships. These adolescents exhibit more prosocial behaviors, and this indicates the importance of autonomous motivation for the psycho-social adaptation of adolescents. All of these results may provide partial support to the argument that prosocial behaviors are more likely as a result of



obedience in a relational structure in Turkey (Kumru et al., 2004). However, to what extent adolescents who are externally motivated and who spend time with prosocial friends would exhibit other-oriented prosocial behaviors needs to be further investigation.

The limitations of the study should be taken into account in the interpretation and evaluation of the results. First of all, only self-report scales were used, and the scales were filled out only by adolescents; this possibly might cause an increase in the shared method variance in the study. Secondly, the direction of relationships was not certain because of the cross-sectional nature of the study. For example, it is possible to demonstrate in a longitudinal study that having autonomous motivation is an actual predictor of prosocial behavior or other oriented prosocial behaviors might feed the prosocial quality of friendship. Third, the sample of this study is recruited from urban families in middle socio-economic status. For this reason, it is not possible to generalize findings to other SES groups in the referred culture.

Despite its limitations, this study made important contributions to the literature. First, it strengthened the importance of autonomous motivation on other-oriented prosocial behavior even within a non-western culture. It is important that the studied prosocial behavior is "other-oriented". Indeed, it is claimed that this kind of autonomously motivated prosocial behaviors, which are not geared toward influencing others, are more likely to be exhibited in individualistic cultures (Hardy & Carlo, 2005), and that extrinsically motivated prosocial behaviors (like compliance and public) are more peculiar to collectivistic cultures (Kumru et al., 2004). Secondly, this research indicated the importance of the peers and the quality of the relationship with peers as a means of socialization in adolescents' prosocial behaviors with autonomous motivation. Thus, this study highlights that there should be two possible paths to exhibit other oriented prosocial behaviors among adolescents. One of them is autonomous motivation as a universal construct and the other one is peer context as a separate socialization agent.

In conclusion, this study revealed the prosocial characteristics of friendship context as an explanatory process in the link between autonomous motivation and other-oriented prosocial behavior among adolescents in Turkish culture. The results of the study emphasized that non-western adolescents might exhibit the prosocial behaviors just because they find it valuable and desirable, or as a result of the influence of their peer group.

### **Ethics Approval**

We declare that the research was conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. There is no conflict of interest in the research. The study approved by Hacettepe University Ethics Commission (04.03.2013, 433-871). This research was funded by The Scientific and Technological Research Council of Turkey (TÜBİTAK SOBAG-108K155).



## References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411-423.
- Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of perceived parents' conditional regard: A self-determination theory analysis. *Journal of Personality*, *72*, 47-89
- Azmitia, M., & Montgomery, R. (1993). Friendship, transactive dialogues, and the development of scientific reasoning. *Social Development*, *2*(3), 202-221.
- Baker, M., Milich, R., & Manolis, M. B. (1996). Peer interactions of dysphoric adolescents. *Journal of Abnormal Child Psychology*, *24*, 241-255.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Barry, C. M. & Wentzell, K. R. (2006). Friend influence on prosocial behavior: The role of motivational factors and friendship characteristics. *Developmental Psychology*, *42*(1), 153-163.
- Bayar, Y., & Uçanok, Z. (2019). *Ebeveyn akran yönetiminin öncülleri ve akran ilişkileri açısından sonuçları* [Antecedents of Parental Peer Management and Consequences on Peer Relations]. In A. Güre (Eds.) *Aile Sistemleri* [Family Systems]. Ankara: Türkiye Klinikleri [Turkish Clinics] (pp. 32- 47).
- Berndt, T. J., Hawkins, J. A., & Jiao, Z. (1999). Influences of friends and friendships on adjustment to junior high school. *Merrill-Palmer Quarterly* *45*(1), 13-41.
- Berndt, T. J., & Perry, T. B. (1986). Children's perceptions of friendships as supportive relationships. *Developmental Psychology*, *22*(5), 640-648.
- Boxer, P., Tisak M. S., & Goldstein E. (2004). Is it bad to be good? An exploration of aggressive and prosocial behavior subtypes in adolescence, *Journal of Youth and Adolescence*, *33*(2), 91-100.
- Brendgen, M., Markiewicz, D., Doyle, A. B., & Bukowski, W. M. (2001). The relations between friendship quality, ranked-friendship preference, and adolescents' behavior with their friends. *Merrill-Palmer Quarterly*, *47*(3), 395-415.
- Brendgen, M., Vitaro, F., & Bukowski, W. M. (2000). Stability and variability of adolescents' affiliation with delinquent friends: Predictors and consequences. *Social Development*, *9*, 205-225.
- Bukowski, W. M., & Hoza, B. (1989). *Popularity and friendship: Issues in theory, measurement, and outcome*. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 15-45). New York: Wiley
- Bukowski, W. M., Hoza, B., & Boivin, M. (1994). Measuring friendship quality during pre and early adolescence: The development and psychometric properties of the Friendship Qualities Scale. *Journal of Social and Personal Relationships*, *11*, 471-484.
- Byrne, B. M., & Stewart, S. M. (2006). Teacher's corner: The MACS approach to testing for multigroup invariance of a second-order structure: A walk through the process. *Structural Equation Modeling*, *13*(2), 287-321.

- Carlo, G., Fabes, R., Laible, D., & Kupanoff, K. (1999). Early adolescence and prosocial/moral behavior II: The role of social and contextual influences. *Journal of Early Adolescence, 19*, 132-133.
- Carlo, G., Mestre, M. V., McGinley, M. M., Tur-Porcar, A., Samper, P., & Opal, D. (2014). The protective role of prosocial behaviors on antisocial behaviors: The mediating effects of deviant peer affiliation. *Journal of Adolescence, 37*, 359-366. Doi: <https://doi.org/10.1016/j.adolescence.2014.02.009>.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*(2), 233-255.
- Choukas-Bradley, S., Giletta, M., Cohen, G. L., & Prinstein, M. J. (2015). Peer influence, peer status, and prosocial behavior: An experimental investigation of peer socialization of adolescents' intentions to volunteer. *Journal of Youth and Adolescence, 44*(12), 2197-2210.
- Curran, P., Stice, E., & Chassin, L. (1997). The relation between adolescent alcohol use and peer alcohol use: A longitudinal random coefficients model. *Journal of Consulting and Clinical Psychology, 65*, 135-140.
- Çileli, M. (2000). Change in value orientations of Turkish youth from 1989 to 1995. *The Journal of Psychology, 134*, 297-305.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268.
- Eisenberg, N., Carlo, G., Murphy, B., & Van Court, P. (1995). Prosocial development in late adolescence: A longitudinal study. *Child Development, 66*, 1179-1197.
- Elliott, D. S. (1994). *Longitudinal research in criminology: Promise and practice*. In E. G. M. Weitekamp & H. J. Kerner (Eds.), *Cross-national longitudinal research on human development and criminal behavior* (pp. 189–201). Dordrecht, The Netherlands: Kluwer Academic.
- Fabes, R. A., Fultz, J., Eisenberg, N., May-Plumlee, T., & Christopher, F. S. (1989). Effects of rewards on children's prosocial motivation: A socialization study. *Developmental Psychology, 25*, 509-515.
- Frey, B. S., & Jegen, R. (2001). Motivation crowding theory: A survey of empirical evidence. *Journal of Economic Surveys, 15*, 589-611.
- Finkelstein, M. A., Penner, L. A., & Brannick, M. T. (2005). An examination of role identity and motives among hospice volunteers. *Social Behavior and Personality, 33*, 403-418.
- Gagne, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion, 27*, 199–223.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.
- Grube, J. A., & Piliavin, J. A. (2000). Role identity, organizational experiences, and volunteer performance. *Personality and Social Psychology Bulletin, 26*, 1108–1119.
- Grusec, J. E., & Goodnow, J. J. (1994). Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental psychology, 30*(1), 4-19. doi: [10.1037/0012-1649.30.1.4](https://doi.org/10.1037/0012-1649.30.1.4)

- Göregenli, M. (1995). Kültürümüz açısından bireycilik-toplulukçuluk eğilimleri: Bir başlangıç çalışması [Individualism-collectivism orientations in the Turkish culture: A preliminary study]. *Türk Psikoloji Dergisi* [Turkish Journal of Psychology], *10*(35),1-14.
- Göregenli, M. (1997). Individualist and collectivist tendencies in a Turkish sample. *Journal of Cross-Cultural Psychology*, *28*,787-793.
- Hardy, S. A., & Carlo, G. (2005). Adolescent religiosity, prosocial values, and prosocial behaviors: A mediational analysis. *Journal of Moral Education*, *34*, 231–249.
- Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological Bulletin*, *121*(3), 355–370. doi: [10.1037/0033-2909.121.3.355](https://doi.org/10.1037/0033-2909.121.3.355)
- Hoffmann, M. L. (1983). *Affective and cognitive processes in moral internalization*. In E.T. Higgins, D. Ruble, and W. Hartup (Eds.), *Social cognition and social development: A sociocultural perspective* (pp. 236–274). Cambridge: Cambridge University Press.
- İmamoğlu, E. O. & Karakitapoğlu-Aygün, Z. (1999). 1970'lerden 1990'lara değerler: Üniversite düzeyinde gözlenen zaman, kuşak ve cinsiyet farklılıkları [Value Preferences from 1970s to 1990s: Cohort, Generation and Gender Differences at a Turkish University]. *Türk Psikoloji Dergisi* [Turkish Journal of Psychology], *14*(44), 1-22.
- Kağıtçıbaşı, Ç. (2010). *Benlik, aile ve insan gelişimi: kültürel psikoloji* [Family, Self, and Human Development: Cultural Psychology]. İstanbul: Koç Üniversitesi Yayınları [Koc University Publication].
- Kagitcibasi, C., & Ataca, B. (2005). Value of children and family change: A three-decade portrait from Turkey. *Applied Psychology: An International Review*, *54*(3), 317-137.
- Karakitapoğlu-Aygün, Z. ,& İmamoğlu, E. O. (2002). Value domains of Turkish adults and university students. *The Journal of Social Psychology*, *142*, 333-351.
- Kındap, Y. (2011). *Kendini belirleme kuramı temelinde ergenlikte destekleyici ebeveynlik, akademik ve sosyal uyum ve kendini belirleme düzeyi arasındaki ilişkilerin boylamsal olarak incelenmesi*. [A longitudinal study of the relationship between supportive parenting, social adjustment and self-determination level among adolescents on the basis of Self Determination Theory] (Unpublished doctoral thesis). Hacettepe University, Institution of Social Sciences, Turkey.
- Kındap-Tepe, Y., & Sayıl, M. (2018). Olumlu sosyal davranışlar alanında kendini düzenleme ölçeğinin psikometrik özelliklerinin incelenmesi [Examination of Psychometric Properties of Prosocial Self-Regulation Questionnaire]. *Nesne Psikoloji Dergisi* [Nesne Journal of Psychology], *6*(12), 126-143.
- Kındap, Y., Sayıl, M., & Kumru, A. (2008). Anneden algılanan kontrolün niteliği ile ergenin psikososyal uyumu ve arkadaşlıkları arasındaki ilişkiler: Benlik değerinin aracı rolü [The Relationships Among Type of Perceived Maternal Control, Psychosocial Adjustment, and Friendship in Adolescence: The Mediator Role of Self-Esteem]. *Türk Psikoloji Dergisi* [Turkish Journal of Psychology], *23*(61), 95-110.
- Kındap-Tepe, Y., & Aktaş, V. (2019). The mediating role of needs satisfaction for prosocial behavior and autonomy support. *Current Psychology*. DOI: [10.1007/s12144-019-00466-9](https://doi.org/10.1007/s12144-019-00466-9)

- Knight, G. P., & Carlo, G. (2012). Prosocial development among Mexican American youth. *Child Development Perspectives*, 6, 258–263. DOI: 10.1111/j.1750-8606.2012.00233.x
- Kumru, A., Carlo, G., & Edwards, C. P. (2004). Olumlu sosyal davranışların ilişkisel, kültürel, bilişsel ve duyuşsal bazı değişkenlerle ilişkisi [Relational, Cultural, Cognitive, and Affective Predictors of Prosocial Behaviors]. *Türk Psikoloji Dergisi* [Turkish Journal of Psychology], 19(54), 109-125.
- Kunda, Z., & Schwartz, S. H. (1983). Undermining intrinsic moral motivation: External reward and self-presentation. *Journal of Personality and Social Psychology*, 45, 763–771.
- Law, B. F., Shek, D. L., & Ma, C. S. (2013). Validation of family, school, and peer influence on volunteerism scale among adolescents. *Research on Social Work Practice*, 23(4), 458–466.
- Markiewicz, D., Doyle, A. B., & Brendgen, M. (2001). The quality of adolescents' friendships: Associations with mothers' interpersonal relationships, attachments to parents and friends, and prosocial behaviors. *Journal of Adolescence*, 24, 429-445.
- Nelson, J. & Aboud, F. E. (1985). The resolution of social conflict between friends. *Child Development*, 56, 1009-1017.
- Noom, M. J., Dekovic, M., & Meeus, W. (2001). Conceptual analysis and measurement of adolescent autonomy. *Journal of Youth and Adolescence*, 30,577-595.
- Padilla Walker, L. M., Carlo, G., & Nielson, M. G. (2015). Does helping keep teens protected? Longitudinal bidirectional relations between prosocial behavior and problem behavior. *Child Development*, 86, 1759-1772. Doi: <https://doi.org/10.1111/cdev.12411>.
- Piaget, J. (1965). *The moral judgment of the child*. New York: Free Press. (Originally published 1932).
- Reykowski, J., & Smolenska, Z. (1980). Personality mechanisms of prosocial behavior. *Polish Psychological Bulletin*, 11, 219–230.
- Roth, G. (2008). Perceived parental conditional regard and autonomy support as predictors of young adults' self-versus other-oriented prosocial tendencies. *Journal of Personality*,76(3), 513-534.
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, 57, 749-761.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Sayı, M., & Kındap, Y. (2009). Anne babalık davranışları ile ergenin işlevselliği ilişkisinde kendini düzenlemenin aracı rolü [The mediating role of self-regulation in the relationship between parenting behavior and adolescent's functionality]. (TÜBİTAK SOBAG-108K155).
- Sayı, M., Kındap, Y., Bayar, Y., Bayraktar, F., Kurt, D., Tığrak, A., & Yaban, E. H. (2012). *Ergenlik döneminde ebeveynlik ve ergenin psikososyal uyumu* [Parenting and psychosocial adaptation of adolescents in adolescence]. Ankara: Hacettepe Üniversitesi Yayınları [Hacettepe University Publication].

- Shin, H. (2017). Friendship dynamics of adolescent aggression, prosocial behavior, and social status: The moderating role of gender. *Journal of youth and adolescence, 46*(11), 2305-2320.
- Soenens, B., Vansteenkiste, M., Goossens, L., Duriez, B., & Niemiec, C. P. (2008). The intervening role of relational aggression between psychological control and friendship quality. *Social Development, 17*(3), 661-681.
- Steinberg, L., & Silverberg, S. B. (1986). The vicissitudes of autonomy in early adolescence. *Child Development, 57*, 841-851.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.
- Tilton-Weaver, L. C., & Galambos, N. L. (2003). Adolescents' characteristics and parents' beliefs as predictors of parents' peer management behavior. *Journal of Research on Adolescence, 13*, 269-300.
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational research methods, 3*(1), 4-70.
- Van Goethem, A. J., van Hoof, A., van Aken, M. G., de Castro, B., & Raaijmakers, Q. W. (2014). Socialising adolescent volunteering: How important are parents and friends? Age dependent effects of parents and friends on adolescents' volunteering behaviors. *Journal of Applied Developmental Psychology, 35*(2), 94-101.
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology, 98*(2), 222-244.
- Wentzel, K. R. (2014). *Prosocial behavior and peer relations in adolescence*. In L. M. Padilla-Walker & G. Carlo (Eds.), *Prosocial development: A multidimensional approach* (p. 178-200). Oxford University Press.
- Wentzel, K. R., Barry, C. M., & Caldwell, K. A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology, 96*(2), 195-203.
- Yaban, E. H., Sayıl, M., & Kındap-Tepe Y. (2013). Erkek ergenlerde anne babadan algılanan destek ile akran zorbalığı arasındaki ilişkide arkadaşlık niteliğinin rolü [The relations between perceived parental support and peer bullying / victimization in male adolescents: The role of friendship quality]. *Türk Psikoloji Dergisi [Turkish Journal of Psychology], 28*(71), 20.
- Yağmurlu, B., Çıtlak, B., Dost, A., & Leyendecker, B. (2009). Türk annelerin çocuk sosyalleştirme hedeflerinde eğitime bağlı olarak gözlemlenen farklılıklar [Child socialization goals of Turkish mothers: An investigation of education related within-culture variation]. *Türk Psikoloji Dergisi [Turkish Journal of Psychology], 24*(63), 1-15.

## Positive Prevention Theory: The Investigation of Parenting Styles as A Predictor of Optimism\*

Hatice Seher Özpehriz<sup>1</sup>

*Ministry of Education*

### Abstract

The aim of this study is to investigate the relationship between perceived parenting styles and optimism levels among university students. This study has been conducted with 513 university students from five different universities in Turkey. The results of the research demonstrate that the authoritative/democratic parenting style is a positive predictor of optimism while authoritarian parenting style is a negative predictor of optimism. Protective parenting style is found not to be a predictor of optimism. In addition, the results reveal that male students perceive their parents as more authoritarian and protective and the girl students are found to be more optimistic than male students. Furthermore, the mother education level is found not to be a predictor of optimism, however the secondary school graduate father's children are found to be more optimistic than university graduate /post graduate father's children. The current study aims to make a contribution to the future research on parenting styles and optimism levels in Turkey.

### Key Words

Parenting styles • Optimism • University students

\* This article has been produced from the Master thesis which that has been accepted in 2019.

<sup>1</sup> **Correspondance to:** Teacher, Ministry of Education, E-mail: [hsozpehriz@gmail.com](mailto:hsozpehriz@gmail.com) **ORCID:** 0000-0001-5230-4899

**Citation:** Özpehriz, H. S. (2020). Positive prevention theory: The investigation of parenting styles as a predictor of optimism. *Research on Education and Psychology (REP)*, 4(1), 114-132.

With the beginning of the industrial revolution, there has become many changes in social life of individuals. From industrialization period up to this century, the massive transformation in family types, education styles, transportation vehicles, communication channels, social relations and economic developments has continued with its fastest rate (Yılmaz, 2018; Çelenoğlu, 2018). With the rapid developments in technology, the shift from man power to mechanisation is now preparing to leave its place to artificial intelligence (Minsky, 2007). Today, the term artificial intelligence has started to take its place in our daily lives (Yılmaz, 2018) and there are scientific research over this issue (Jiang, Jiang, Zhi, Dong, Li, Ma, Wang, Dong, Shen, & Wang, 2017; McArthur, Lewis, & Bishary, 2005; Minsky, 2007; Russell & Norvig, 2016). The vagueness of the future has duplicated its obscurity with the new technological developments and these rapid changes related to the future establish stress and anxiety for the new generations (Çelenoğlu, 2018; Yılmaz, 2018).

Children fall into depression in younger ages and higher rates every year (Shatte, Reivich, Gillham, & Seligman, 1999). In order to cope and overcome the stresses of the new developments in the future technologies, the individuals and society need strong optimistic world view in order to tackle with the rapid changes in life. The definition of optimism is broadly the positive expectancy for the future (Carver, Scheier, & Segerstorm, 2010). Optimism is one of the dynamics of positive psychology which is related to constructive cognitions about the future (Seligman, 2002). Studies related to anxiety and stress reveal that optimistic people develop effective coping strategies and they are effective copers (Carver et al., 2010; Nes & Segerstorm, 2006).

Güleri (1998)'s study demonstrates that the Turkish youth's pessimism levels (56.0%) are higher than optimism levels (44.0%). Seligman (2002) claims that in this new century, the prevention of unwanted outcomes will be established by creating a science of human resilience which its duty will be understanding and learning the ways how to foster these qualities in young people. This explanation opens new paths to the understanding of psychology and it forms a base for our study. In the light of positive prevention theory, we aim to seek the core process of the optimal functioning for optimism.

According to psychoanalytic and psychosocial theory, every adult behaviour and trait roots back to childhood experiences (Freud & Bonaparte, 1954; Erikson, 1963, 1968). As optimism is a dynamic of positive psychology, our aim is to take precautions and to nourish optimism and examine which parenting style leads to more optimistic individuals. The effects of parenting styles has been investigated in many areas like personality and moral development (Loudová & Lasek, 2015), emotion regulation (Manzeske & Stright, 2009), problem behaviour (Aunola, & Nurmi, 2005), academic achievement (Spera, 2005), overweight status of child (Rhee, Lumeng, Appugliese, Kaciroti, & Bradley, 2006), substance use (Cohen & Rice, 1997), anxiety (Van Gastel, Legerstee, & Ferdinand 2009; Wolfradt, Hempel, & Miles, 2003), addiction (Çevik & Çelikkaleli, 2010), coping behaviour and depersonalization (Wolfradt et al., 2003), these examples could be widened as the examples are numerous. The results demonstrate the significance of parental effect on future behaviour. Many parents despite the best intentions, unwittingly undermine their children's capacity for optimism and positive thinking by choosing the incorrect attitudes in their parenting. The most effective parenting styles and practices should be known by parents, in order to prepare children for the challenges of the future's world.

Our investigation of which parental style facilitates optimism, is an effort to contribute to the flourishing process. The answer to the question "which parenting style can best nourish the child's optimism potentials? is

sought in this study. Building buffering strengths, nourishing positive functioning of optimism will lead to happier, healthier individuals and in the broader level to healthier generations (Seligman, 2002).

Seligman (2002) gives the definition of the objectives of positive psychology as prevention and taking precautions of misbehaviour by flourishing positive strengths and directing the individual to the right behaviour. Until the 90's, the science of psychology concentrated on the negative sides and behaviours of human beings, aiming to find solutions to the problems individuals face; while neglecting the positive emotions of psychology like happiness, well-being and optimism (Alex Linley et al., 2006; Öztürk & Çetinkaya, 2015). In the recent years, the field of psychology has changed its tendency to the positive sides of human being, investigating peace and positive human attitudes rather than negative attitudes like aggression, hatred, hopelessness and depression (Güloğlu, 2015).

Positive psychology's aim is to find the ways to strengthen the positive sides and seek ways to understand the facilitating factors for optimal functioning of human behaviour while preventing the negative outcomes (Seligman, 2002). Consistently, Seligman and Csikszentmihalyi (2000) makes the definition of positive psychology as preventing and taking precautions of misbehaviour by flourishing positive strengths and directing the individual to the right behaviour.

Positive psychology serves a central role as every individual is interested in factors that are best for their happiness, health and fulfillment and which factors could best fulfill their psychological needs (Alex Linley et al., 2006). According to Positive Prevention Theory (Seligman, 2002), there are human strengths that act as buffers against mental illnesses; these are traits of positive psychology like optimism, interpersonal skill, faith, hope, honesty and perseverance if to name several.

As mentioned earlier, Seligman (2002) claims that the prevention of unwanted outcomes will be established by creating a knowledge of wisdom on human strength with the mission to understand and learn how to nourish these qualities in young people. This explanation opens new paths to the understanding of the science of psychology and it forms a base for our study. In the light of positive prevention theory, we aim to seek the core process of the optimal functioning for optimism. Our investigation of which parental style facilitates optimism, is an effort to contribute to the flourishing process. The answer to the question "which parenting style can best nourish the child's optimism potentials?" is sought in this study. Building buffering strengths, nourishing positive functioning of optimism will lead to happier, healthier individuals and in the broader level to healthier generations (Seligman, 2002).

## Method

### Research Design

The purpose of the current study is to examine the relationship among university students' perceived parenting styles and their optimism levels. Our study is a quantitative study and a non-experimental design is used. In this study, relational survey model which is a subtype of general survey model has been applied. Relational survey is a research model that is conducted in order to define the relationship between two or more variables, and to obtain clues related to cause and effect relationships (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, & Demirel, 2008).



## Study Group

The sample of this study is university students in Turkey. 513 college students from five different universities in Turkey have been participated in the present study. These universities are Istanbul Sebahattin Zaim University, Ankara Yıldırım Beyazıt University (AYBU), Konya Necmettin Erbakan University, Konya Selçuk University and Karamanoğlu Mehmet Bey University. The students that have participated in the study Preparation Department, Faculty of Engineering, Faculty of Economics and Administrative Sciences, Faculty of Law, Faculty of Social Sciences, Faculty of Education, Faculty of Health Sciences. The grades vary from English preparation class to 4th grade and postgraduate students. The students have been chosen by cluster random sampling technique.

Table 1

*Distribution of Students by the University Type*

<b>Name of University</b>	<b>N</b>	<b>Percent</b>
Necmettin Erbakan	106	20,7
Selçuk	112	21,8
Karaman Mehmet Bey	100	19,5
İstanbul Sabahattin Zaim	105	20,5
Yıldırım Beyazıt	90	17,5
Total	513	100,0

## Data Collection Tools

In order to measure perceived parenting styles and optimism levels, two different pencil and paper tests has been conducted. In addition, the students have been asked to fill in a informed consent form and also a form that demands demographic variables. “Parents’ Attitude Scale” has been used in order to measure perceived parenting styles and “Optimism Scale” to measure optimism.

*Parents Attitude Scale.* To measure students’ perceived parenting styles “Parents Attitude Scale” (Anne Baba Tutum Ölçeği- ABTÖ) has been conducted. “Parents Attitude Scale” is a scale developed by [Kuzgun and Eldeleklioglu \(2005\)](#) in order to evaluate university students’ perceived parenting attitudes.

The test consists of 40 statements which contains three sub-scales: 15 of the statements evaluates authoritative/democratic parenting attitude and the other 15 evaluates protective/demanding parenting attitude and 10 of the statements evaluate authoritarian parenting attitudes. The statements which refer to the warm, supportive and welcoming approaches of the parent measures the authoritative/democratic parenting attitude subscales; while, the statements which refer to the overprotective and strictive attitudes of the parents measures the protective/demanding parenting attitude sub-scale; on the other hand, the statements which refer to the strict, harsh, punitive approach of the parent measures authoritarian parenting attitudes sub-scale. The scale is a 5-point Likert type scale, which is graded as: 1=nonrelevant; 2=slightly relevant; 3=partially relevant; 4=very relevant; 5=totally relevant.

For determining reliability of the scale, Cronbach alpha coefficients were calculated for each subscale. The internal consistency reliabilities were .90 for authoritative/democratic, .84 for protective-demanding and .77 for authoritarian parenting styles. For the validity of the scale, Confirmatory Factor Analysis has been conducted.

The results show that the structure has been confirmed. It has been seen that the factor loads obtained from the Confirmatory Factor Analysis varies between .30 and .77. The factor loads being greater than .30 shows the sufficiency of the factor loads of the statements (Seçer, 2015). The analysis reveal the following results:  $\chi^2 /sd = 2.45$ , RMSEA= 0.07, SRMR=0.06, NFI =0.90, CFI= 0.95, GFI=0.92, AGFI=0.89, TLI = 0.91. We see that the results has the desired level of fit criteria, in general. All the paths in the tested model are significant in the 0.001 level.

*Optimism Scale.* To measure students' optimism levels, "Optimism Scale" has been conducted to the students. The scale was developed by Balcı and Yılmaz (2002) to evaluate university students' optimism levels. The scale is a 4-point Likert type scale which has 24 statements at total. The students have been asked to choose one of the four statements: (1) Definitely not like me, (2) Not like me (3) Sometimes like me (4) Definitely like me. The lowest point recieved from the scale could be 24 and the highest 96 points. High points refer to individual's optimism. The 1st, 6th, 8th, 9th and 11th statements have been reverse-coded.

In order to measure the scale's reliability Cronbach Alpha coefficients has been calculated. The results of Cronbach Alpha coefficients are .84 . For the validity of the scale, Confirmatory Factor Analysis has been conducted. The results show that the structure has been confirmed. It has been seen that the factor loads obtained from the Confirmatory Factor Analysis varies between .292 and .713. The analysis reveal the following results:  $\chi^2 /sd = 3.17$ , RMSEA= 0.06, SRMR=0.05, NFI =0.94, CFI= 0.96, GFI=0.92, AGFI=0.90, TLI = 0.92. It has been seen that the results has the desired level.

### **Procedure**

After obtaining the AYBU ethics committee's approval permission from Mrs. Eldeleklioğlu and Mrs. Balcı has been obtained to use their scale in our study. Later, a petition has been written to the rectorates of the universities to obtain permission to administer the instruments to the students and the approval has been recieved from the universities. To measure students' percieved parenting styles "Parents Attitude Scale" and to measure students' optimism levels "Optimism Scale" has been applied to the students. In addition, the students filled in an informed consent form and a demographic variables form. The survey forms were conducted in their regular class hour by either their lecturer or the researcher. The approximate time of the survey took about 5-10 minutes. of fit criteria, in general. All the paths in the tested model are significant in the 0.001 level.

### **Data Analysis**

The data were analyzed with the help of SPSS18 programme. To make a general evaluation about the items in the demographic variables form, the descriptive statistics (e.g. frequency, percentages etc.) were calculated. To examine the correlational relationship between percieved parenting styles and optimism levels correlational analyses have been applied. To understand the predictors of optimism, multiple regression analysis has been utilized. To learn the significance of the differences in gender variable t-tests have been applied. The N, x, Ss values of the point averages of the university students' optimism levels have been calculated related to the variable of mother and father education level. Also ANOVA and Scheffe test has been applied in order to reveal the significance of differentiation of optimism and mother-father education level variable.

### Findings

Data was investigated. A total of 513 participants were examined. In this chapter, first of all, the demographic information has been given. Later, the t-test results of the gender variable, the X scores and the ANOVA results related to mother/father education level, the correlational relationship and regression results have been analysed.

#### Demographic Characteristic of Participants

Based on the demographic form, university type, faculty type, socio-economic status, mother-father education level, residential status and birth order were determined. Regarding the age of the participants ( $N=513$ ), the mean age was 20.5 (range=18-42). Regarding the gender, 161 participants were males (31.4%), 352 participants were females (68.6%). A high majority of the participants (78.2%) defined their socioeconomic status as medium. The %71.7 of the participants ( $N=513$ ) reported that the longest place they have dwelt had been Cities/Metropolis, %20.3 county/towns and %7.8 villages. We could see that the participants show almost an equal distribution in their university types (see Table.1). The highest participation is from Faculty of Education (39.8%), the Faculty of Social Sciences (27.5%) follows next.

When the family related factors are examined, the findings demonstrate that 250 of the participants' mothers were elementary school graduate mothers (48.7%) which has the highest rate, with 98 participant having secondary school graduate mothers (19.1%) following next. However in the case of fathers, the highest rate is of elementary school graduate fathers (31.2%), the following highest rate belongs to university or post-graduate fathers (26.9%). The participants are mainly the first (39.2%) or second (29.6%) child of their family.

As our study's main focus is the relationship of parenting style and optimism, only the percentages of demographic and family related factors' are given. Their effects on parenting styles and optimism are not included into this study.

#### Analysis for Gender Variable

First of all, the analyses of gender variable related to parenting styles has been calculated. The table below gives information about the data:

Table 2

*The T test Scores Related to the Parenting Styles Sub-scale points for the Gender Variable*

	Gender	N	$\bar{X}$	S.S	T	P
Democratic Attitude	Male	137	53.54	12.45	-1.768	.078
	Female	352	55.75	12.33		
Protective Attitude	Male	137	38.29	10.77	3.042	.002*
	Female	352	35.02	10.66		
Authoritarian Attitude	Male	137	24.29	7.98	3.924	.000*
	Female	352	21.41	7.02		

\*  $p < .05$

When Table 2 is examined, it has been seen that there is no significant differentiation between male and female students' perceived democratic attitude. However, for perceived protective attitude sub-scale points a significant differentiation has been encountered ( $p < .05$ ). The male students' perceived protective attitude sub-

scale points ( $X=38.29$ ) are higher than the female students' points ( $X= 35.02$ ). Similarly, a significant differentiation has been encountered for authoritarian attitude sub-scale as well ( $p < .05$ ). The average points ( $X= 24.29$ ) male students received from the authoritarian attitude sub-scale are higher than the female students' points ( $X= 21.41$ ). Table.3 gives information about the optimism scores related to gender. The analyses are as follows.

Table 3

*The T-test Results for Optimism Scale Points for Gender Variable*

	<b>Gender</b>	<b>N</b>	<b><math>\bar{X}</math></b>	<b>S.S</b>	<b>T</b>	<b>P</b>
Optimism Scale	Male	137	73.91	11.36	-2.466	.017*
	Female	352	76.34	9.09		

\* $p < .05$

In Table.3, a significant differentiation has been found between male and female university students' optimism scale scores ( $p < .05$ ). The female students' average optimism scale points ( $X=76,43$ ), are higher than male students' average optimism scale points.

#### **Analysis for Mother Education Level Variable**

Below the analyses of  $X$  values and the the ANOVA results related to mother education level are investigated. The tables show the differentiation of the variables.

Table 4

*The n,  $\bar{X}$ , Ss Values of the Point Averages that the University Students Received from the Optimism Scale Related to the Mother's Education Level Variable*

	<b>Education Status</b>	<b>n</b>	<b><math>\bar{X}</math></b>	<b>Ss</b>
Optimism	Illiterate	25	75.36	8.67
	Elementary	250	76.53	8.99
	Secondary	99	75.53	9.79
	High School	71	75.39	9.43
	University	67	73.05	12.05

In Table 4., when the university students' optimism scale average points are considered, the highest mean belongs to students whose mothers are elementary school graduate ( $X =76.53$ ) Mothers who are secondary school graduate ( $X=75.53$ ), mothers who are high school graduate ( $X =75.39$ ), mothers who are illiterate ( $X =75.36$ ), mothers who have graduated from university or who are post-graduate( $X=73.05$ ) follow the rank respectively.

Table 5

*The ANOVA Results of University Students' Optimism Scale Mean Scores According to Mothers' Education Level Variable*

		<b>Source</b>	<b>SS</b>	<b>df</b>	<b>F</b>	<b>P</b>
Optimism	Inter-group	653.704	4	163.426	1.730	.142
	In-group	47797.06	506	94.461		
	Total	48450.77	510			

When Table 5. is examined, it could be determined that there is no significant difference between optimism level and mothers' education level variable.

**Analysis for Father Education Level Variable**

The following analyses demonstrate the X values and the the ANOVA results related to mother education level. The tables show the differentiation of the variables.

Table 6

*The n, X, Ss Values of the Point Averages that the University Students Recieved from the Optimism Scale Related to the Father's Education Level Variable*

	<b>Education Status</b>	<b>n</b>	<b><math>\bar{X}</math></b>	<b>Ss</b>
Optimism	Illiterate	11	69.54	10.81
	Elementary	160	75.81	8.61
	Secondary	89	78.28	7.95
	High School	109	76.02	8.59
	University	138	73.91	11.90

When the Table 6. is examined, we could see that the highest optimism score mean was recieved by secondary school graduate fathers ( $X = 78.28$ ). Fathers who are high school graduate ( $X = 76.02$ ), fathers who are elementary school graduate ( $X = 75.81$ ), fathers who have graduated from university or who are post-graduate ( $X = 73.91$ ) and fathers who are illiterate ( $X = 69.54$ ) followed next.

Table 7

*The ANOVA Results of University Students' Optimism Scale Mean Scores According to Fathers' Education Level Variable*

	<b>Source</b>	<b>KT</b>	<b>Sd</b>	<b>KO</b>	<b>F</b>	<b>P</b>	<b>Significant Difference</b>
Optimism	Inter-group	1406.204	4	365.498	3.993	.003*	Sec.School Graduate >
	In-group	45946.95	502	91.528			Univ./Post-Graduate
	Total	47408.95	506				

\*  $p < .05$

When the Table 7. is examined, the results reveal that the university students' optimism points have a significant relationship with the fathers' education level variable. The Schefee test has been conducted in order to look at the source of the differentiation. As a result, the test revealed that secondary school graduate fathers

( $X=78.28$ ) have received significantly higher optimism points than the fathers who have graduated from university or who are post-graduate ( $X=73.91$ ).

### The Correlational Analyses of Perceived Parenting Attitudes and Optimism Scores

The main focus of this study was to investigate the relationship of perceived parenting styles and optimism. The following table demonstrates the relationship of these variables.

Table 8

*The Correlation between University Students' Perceived Parenting Attitudes and Optimism Scores*

	1	2	3	4
1. Authoritative/democratic	-	-.69**	-.31**	.43**
2. Protective		-	.32**	-.26**
3. Authoritarian			-	-.23**
4. Optimism				-

$p < .01$

When the correlation table is examined, there is a significant and positive relationship ( $p < .01$ ) between university students' optimism scale points and authoritative/democratic attitude sub-scale points. On the other hand, there is a significant but negative relationship ( $p < .01$ ) between university students' optimism scale points and protective and authoritarian attitude sub-scale points.

### The Regression Analysis of Perceived Parenting Attitudes and Optimism Scores

To understand the predictors of optimism, multiple regression analysis has been conducted. The table below reveals the predictors of optimism:

Table 9

*Regression Analysis Results Related to University Students' Perceived Parenting Attitudes and Optimism Scores*

Variable	B	SH <sub>B</sub>	$\beta$	T	p
Democratic Attitude	.186	.042	.235	4.418	.00
Protective Attitude	-.044	-.048	-.048	-.901	.368
Authoritarian Attitude	-.192	.084	-.144	-2.268	.024

R = .372      R<sup>2</sup> = .13  
F = 27.167      p = .00\*\*\*

When multiple regression analysis results are examined related to predict university students' optimism scores, it has been seen that democratic attitude and authoritarian attitude sub-scales significantly predict the optimism levels. When the t-tests scores related to the significance of the regression coefficients are examined, it has been seen that democratic attitude sub-scale is a significant predictor.

### Discussion

The significance of childraising attitudes and parenting styles has been emphasized in the present study. The literature indicates that childhood is an important period of life. It is the period which the caregivers/parents' feedbacks are essential, as they are stored in the subconscious and which these accumulations shape behaviour by time (Yavuzer, 2014). While children are growing up, they are only under the shelter of their caregivers and they

have not encountered nor faced the difficulties of life yet. The thing that directs their thoughts and feelings is the feedback that they receive from their parents (Tarhan, 2015).

The outcomes of parenting mostly shows itself in the age of university period. University life is a time of great transition, where young adults have the chance to explore their independence and begin to individuate from their parents' influence. However, the effect of one's reared parenting style continues even after the child has left home (Griess, 2010; Yalm, 2007). That influence can affect the overall development of a student's ability, emotion, perception, worldview and lifestyle (Griess, 2010). Ben-Zur (2003) suggests that optimism in adolescents is established early in life.

The literature on the effects of parenting styles on future behaviour has shown that parents attitudes are an important predictor for forming personality characteristics and personality traits. Positive prevention theory is the starting point of this study as we aimed to reveal the predicting parental factors for nourishing optimism and ways to prevent pessimistic perspective. This study could indicate us that democratic parenting style is an appropriate parenting style for gaining an optimistic worldview. As mentioned earlier, what matters for an optimistic outlook is the explanatory style chosen (Gillham et al., 2001). The way individuals define and explain problems forms the individuals' optimistic or pessimistic worldview. These explanations are formed with the entity of self- efficacy or the lack of it. The preliminary efficacy experiences of a child is centered in the family. According to Bandura (1994), responsive parents create opportunities for efficacious actions by providing an enriched physical environment and allow freedom of movement for exploration; they encourage their children about their capabilities, thus, expand their child's self-knowledge of what they can and cannot do. The child who codes the self-perceptions related to self-efficacy, creates her/his optimistic or pessimistic explanatory style upon unpleasant events.

### **Parenting Styles and Optimism**

The main purpose of this study was to put forward which parenting style is a predictor of higher optimism. The results indicate that the authoritative/democratic parenting style is a significant predictor of high optimism levels. The authoritarian parenting style is a significant predictor however it has a negative relationship with optimism. In other words, as the parents' authoritarian attitude increases, the offsprings' optimism level decreases. The results indicate that the protective parenting style is not a significant predictor of optimism.

Results indicated that when students perceive that they are parented under the authoritative/democratic parenting style, they are more likely to develop high levels of optimism than students who perceive they are raised through an authoritarian parenting style. Griess's (2010) findings supports our research. Although Griess's (2010) study measures authoritative, authoritarian, permissive parenting style; her results show consistency with our study as she has found that perceived authoritative/democratic parenting style contributes to higher levels of optimism than the authoritarian parenting style. Another study which shows similarity to our study is Weber, Brandenburg and Viezzer (2003)'s study. Although their study sample are children, their study supports our study as well. Weber et al.(2003) measured the relationship of authoritative, authoritarian, indulgent and neglectful parenting style on optimism levels. Weber et al.(2003)'s study showed that authoritative/democratic parents were associated to higher optimism scores and to lower hopelessness scores. Weber et al. (2003) stated that children reared by authoritative/democratic parenting styles are more prepared to face adversities in an optimistic way and that parents have an important role on the learning processes of children's optimism. Baldwin

[et al. \(2007\)](#) has found that perceived authoritative/democratic parenting style by mother or father was associated with greater optimism in late adolescence whereas authoritarian parenting style was not found as a predictor. Also [Cenk and Demir \(2016\)](#)'s study shows consistency with the related research. [Cenk and Demir \(2016\)](#)'s study revealed that the adolescents who characterised their parents' parenting style as authoritative/democratic or permissive had higher levels of optimism than adolescents who perceived their parents as neglectful and authoritarian. Moreover, [Jackson et al. \(2005\)](#) associated authoritative/democratic parenting with higher self-esteem and lower depression, indicating that optimism may be a central mechanism by which authoritative/democratic parenting facilitates self-esteem, and it may be one of the several mechanisms by which it prevents depression.

As mentioned earlier authoritative/democratic parenting offers moderate control and high autonomy in parenting and authoritarian parenting offers high control and low autonomy; relatedly [Hasan and Power \(2002\)](#)'s results shows that mothers who controlled their children moderately had the most optimistic children, however those who allowed their children little autonomy in problem solving had the highest levels of depressive symptoms in their children. These findings are consistent with [Baumrind \(1966\)](#) theory that authoritative/democratic parenting is the convenient parenting style for raising children with positive attitudes. [Baumrind's \(1966\)](#) authoritative parenting style creates a psychologically positive environment to flourish the child's potentials and talents by the parents' warm and welcoming attitudes. The sustained democratic environment enables the child to express himself freely. The child that feels him/herself important has the tendency to think and behave positively and thus open to new and innovative ideas.

[Baumrind \(1966\)](#) defines the authoritative/democratic parents as enabling and flexible; using reasonable explanations for their demands, not forcing but supervising the child and having clear, logical expectancies for their demands. Related to this definition, we could infer that the parent's logical and reasonable expectancies and positive attitudes could be forming an atmosphere for the child to develop positive and reasonable expectancies for the future. Contrarily, [Baumrind \(1966\)](#) defines authoritarian parents as rigid, autocratic and as obedience-seekers. They demand everything done exactly as they have said so and no explanation is made to the child about the reason for their demands, they try to shape the child's behaviours in strict standards with high parental control. The authoritarian parents show lack of warmth and low parental support and conduct punishments. In this circumstances, the low responsiveness and high demandingness of the authoritarian parents form a base for developing helplessness of the child. The child who faces low warmth could be feeling suppressed and worthless thinking that nothing he/she do matters thus this high pressure could be effecting future expectancies as he/she could not be effective in the future outcome.

[Peterson and Bossio \(2001\)](#) relates optimism with self-efficacy and they state that self-efficacy is a central mediator in developing optimism. In the authoritarian style, the child is scolded, rejected and high obedience is sought for the parents' demands. In an environment like this it may not be possible to develop self-efficacy and thus the development of optimism could be destroyed. The same case is valid for protective style. Our results reveal that protective parenting style is not a predictor of optimism. The oppressive, over-powering and overwhelming attitudes of the parents may not be giving the opportunity to the child to develop self-efficacy and thus resulting in negative outcomes for optimism.



In order for the child to be optimist about his/her future, he/she should be confident about his/her potentials. The child should be supported to make him/her become aware about his/her efficiency in effecting the outcomes.

### **Gender**

The study indicates that a differentiation has been observed between optimism and gender. We see that girls' average optimism scale points are higher than male students' average optimism scale points. When we investigate the results related to gender and parenting styles, we see a significant differentiation for authoritarian and protective parenting style. The male students' perceived protective parenting style sub-scale points and perceived authoritarian parenting style sub-scale points are higher than the female students' points.

According to our study, results indicate that male students perceive their parents more protective and authoritarian. This could be explained with the males desire for freedom. They could be perceiving their parents' normal level of control and protection as "protective and authoritarian". Also [Talib, Mohamad, and Mamat \(2011\)](#)'s study show that parents conduct authoritarian parenting to boys and authoritative/democratic parenting to girls. [Radziszewska, Richardson, Dent, and Flay \(1996\)](#) state that girls are more likely to have authoritative parents than boys. However [İnci and Deniz \(2015\)](#) has not found a statistical significance between father attitudes and gender. Our results demonstrate differences between females and males regarding optimism. Although our study results might be effected from the outnumber of girls in this study, our results show that females' optimism scores are higher than males optimism scores. [Orejudo et al. \(2012\)](#)'s study shows consistency with our study and they state that girls tend to be more optimistic, showing greater communication between peers and mothers. However [Gençoğlu, Alkan, and Koçyiğit \(2014\)](#)'s study shows that there is no differentiation between gender related to optimism levels. Also [Bostancı, Oda, Gebin, and Erail \(2017\)](#) state that gender is not a predictive factor for optimism. In addition, an important point must be emphasized regarding the results related to gender; that is: the study results demonstrate that male students perceive their parents more protective and authoritarian. Consistently males optimism scores are found to be lower than female scores. This relation is an important point to be emphasized because the results related to gender verify that authoritarian and protective parenting are negative predictors of optimism.

The gender's predictive role for both parenting styles and optimism could also be explained with the parents discriminating approach to their different sex children. The parents may tend to accept girls as obedient and more easy-going so the parents might be approaching their daughters in a more democratic and enabling way; on the other hand the parents may accept boys to be more active, out-going, rebellent and invulnerable so their approach might be tending towards more strict and harsh attitudes . As a result, the gender discriminations in the application of parenting styles might be the influencing factor for the girls to be more optimistic.

### **Mother and Father Education Level**

The study results indicate that there is no differentiation regarding mother education level and optimism; however, there is a differentiation regarding father education level. The study shows that the mother education level is not a predictor of optimism. On the other hand, the results reveal that secondary school graduate father's children are more optimist than university/post graduate fathers' children.

Although high education level is an important factor in raising children ([Bostancı, Oda, Şebin, & Erail, 2017](#)). Our data shows that mother's education level is not a significant predictor of optimism. [Bostancı et al.](#)

(2017)'s study results support our study. They have also found that mother education level is not a predictor. This indicates that no matter what the status of the mother is, it does not effect the child's optimism levels. Moreover, the data shows that father education level is a significant predictor of optimism pointing that secondary school graduate father's children are more optimist than university/post graduate fathers' children. Bostanci et al. (2017)'s study does not support our study as their results demonstrate that as the father's education level increases the optimism levels increases as well.

Our results signify that individual's optimism could not be linked with high education levels. A possibility for high optimism of children of low-educated fathers could be the father's hope and desires for the future. The low-educated father could be attributing his own positive future expectencies to his children. The father's dreams and desires which has not been actualised in the father's own life could be influencing the child about the future. The child could be directed and supported by the father to achieve the goals and dreams of his father. Especially, one of the low-educated father's main goals and desire could be giving his child high education and a high life standard. The children of the fathers who have recieved low education could be optimist about the future that his child could achieve these goals and expect that good things will happen. It could also be inferred that the parents who have low education levels have the opportunity to spend more and effective time with their children, however the high-educated parents might not have the time and chance to get involved with their children because of their workload thus the child might have to spend long hours away from the interaction with their father perhaps spending long hours in educational institutions or in the influence of TV/social media for excessive hours. Another possibility could be that the highly educated fathers' conciousness levels may not be the same with the low educated fathers. The high educated father could be more aware of the difficulties that await the child in the future and thus might make more realistic inferences and assumptions whilst reflecting these worries to his child.

### **Positive Prevention for the Future**

From all the literature review, we see that optimism is an important criteria for coping with distress. A great number of research has demonstrated that optimists are good-copers with stressors, they show acceptance and quick adjustment to the stressful situations by searching for paths to deal, cope and overcome the distress. They are combatant personalities, not thinking of giving up and searching for ways to deal with problems. In todays world, stress is showing its prevalence day by day. Depending on the developments which showed up with the industrial revolution, the industrialization process starting with the manpower has changed its route to machinization which is a more economic and more systematic working power and now it is revolving into a new transformation which is robot revolution. The new robotic productions has established a new frame which effects the human's optimistic viewpoint while making us question the place of human in life because of the new problems starting with the employment of robots replacing human's place systematically. The artificial intelligence and the new technologies redesignates the humans' optimistic or pessimistic outlook because of the risk of loosing the job guarentee as well as the anxiety of not being employed to the departments despite high education levels. This state effects all the layers of society, no matter what the individuals' background or education level is, either illiterate or a high level manager, all the social layers in a society have anxiety for the future. It is assumed that there will be many jobs that will occur in the near future which has not been invented yet and many would disappear. The risk of future life does not make it possible to be a long term optimist.

Perhaps there are many domains of life that will go through an diversive change. We have earlier mentioned about the optimism- self-efficacy link. Individuals who do not know what to come across in the future and who do not know their capabilities, limits and self-efficacies for the new circumstances of life will have difficulties in developing positive expectancies for the future. Positive Prevention Theory aims to nourish the positive sides of individuals in order to prevent negative outcomes. For this reason, this study has concentrated on parenting styles which will be buffers for negative future expectancies and nourish the positive thinking of individuals in order to prevent pessimism.

So from the results we could infer that the high warmth and high control of the parents is an essential necessity for the children to know their limits, capabilities, and their efficacies in order to develop optimistic thinking skills. Like many other studies, our study also shows that low warmth and high control is the approach which parents should avoid from, as authoritarian parenting increases the optimism levels decreases. And we see that protective parenting is not a predictor of optimism.

### **Suggestions**

This study offers insight into how perceived parenting styles can influence and contribute to the development of the offspring's optimistic tendencies.

From our research we have inferred that parents have an important role on their child's optimism. Understanding the needs of children and foreseeing the problems beforehand is important for prevention of problems. In order to avoid psychological problems, parents should be informed on how to react to their children's positive and negative emotions, and they should be asked to reflect their warmth, avoid negative parental behaviors like rejection and overprotection while keeping in mind the importance of choosing the appropriate time and strategy in different situations.

It is important to inform parents on how to approach to their children. In a broader level, parent training centers could be established as a state policy by governments. Community health centers could distribute books or booklets informing about the practices of authoritative/democratic parenting in order to teach the conscious of these practices. Pregnant mothers as well as their spouses could be directed by the government to take training programs within the pregnancy period. Moreover, public service ads on TV could be prepared to influence parents for a parenting that fulfills the emotional, psychological and physical needs of their children. For raising happier and more optimist individuals psychologists and psychological counselors could put more emphasis on the importance of child raising attitudes in their counselee seances. Also teachers could be effective in the parents' attitudes. Teachers could set meetings with the parents, orienting them by raising awareness to the importance of the parents' attitudes toward their children.

For a positive future and for a positive outlook, we hope that this study will make a contribution for the literature related to both parenting and optimism. For further research, it would be better if a longitudinal and observational study will be conducted. As a long time research could better show us the details of the relationship between the individual's parents' attitudes and the individual's optimism levels from childhood till their adulthood.

### **Ethic Approval**

I declare that the research was conducted in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. There is no conflict of interest in the research. The study was approved with the Meeting Date and Number 10.05.2017/36 by the Social and Human Sciences Ethic Committee of Yildirim Beyazit University. The author received no financial support for the authorship, research and publication of this article.

## References

- Alex Linley, P., Joseph, S., Harrington, S., & Wood, A. M. (2006). Positive psychology: Past, present, and (possible) future. *The Journal of Positive Psychology, 1*(1), 3-16.
- Aunola, K., & Nurmi, J. E. (2005). The role of parenting styles in children's problem behavior. *Child Development, 76*(6), 1144-1159.
- Balcı, S., & Yılmaz, M. (2002). İyimserlik ölçeğinin geliştirilmesi: geçerlik ve güvenirlik çalışması. [The development of the optimism scale: validity and reliability study]. *OMÜ Eğitim Fakültesi Dergisi* [Journal of OMU Faculty of Education], *14*, 54-60.
- Baldwin, D. R., McIntyre, A., & Hardaway, E. (2007). Perceived parenting styles on college students' optimism. *College Student Journal, 41*(3), 550-558.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998).
- Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child development, 37*(4), 887-907.
- Ben-Zur, H. (2003). Happy adolescents: The link between subjective well-being, internal resources, and parental factors. *Journal of Youth and Adolescence, 32*(2), 67-79.
- Bostancı, Ö., Oda, B., Şebin, K., & Erail, S. (2017). 11–13 yaş öğrencilerin spor yapma durumlarına göre iyimserlik ile saldırganlık düzeylerinin incelenmesi [Investigation of the level of aggression and optimism on the students aged 11-13 who do sports or not]. *Beden Eğitimi ve Spor Bilimleri Dergisi* [Journal of Physical Education and Sport Sciences], *19*(4), 205-217.
- Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2008). *Bilimsel araştırma yöntemleri* [Scientific research methods]. Ankara: PegemA.
- Carver, C. S., Scheier, M. F., & Segerstrom, S.C. (2010). Optimism. *Clinical Psychology Review, 30*, 879-889.
- Cenk, D. S., & Demir, A. (2016). The relationship between parenting style, gender and academic achievement with optimism among Turkish adolescents. *Current Psychology, 35*(4), 720-728.
- Cohen, D. A., & Rice, J. (1997). Parenting styles, adolescent substance use, and academic achievement. *Journal of Drug Education, 27*(2), 199-211.
- Cowan, R. S. (1976). The “Industrial Revolution” in the home: household technology and social change in the twentieth century. *Technology and Culture, 17*(1), 1-23.
- Çelenoğlu, G. K. (2018). Yapay zeka devrimi (AI): artificial intelligence revolution. Retrieved from <https://books.google.com.tr/books/>
- Çevik, U., Çelikkaleli, Y. (2010). Ergenlerin arkadaş bağlılığı ve internet bağımlılığının cinsiyet ebeveyn tutumu ve anne baba eğitim düzeylerine göre incelenmesi [Investigation of adolescents' friend attachment and internet addiction according their gender perceived attitudes of parents and educational level of parents].

- Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi [Journal of Çukurova University Social Sciences Enstitute ], 19(3) , 225-240.
- Erikson, E. H. (1963). *Childhood and society*. 2nd ed. New York: Norton.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: W.W. Norton & Company, Inc
- Freud, S., & Bonaparte, P. M. (1954). *The origins of psychoanalysis*. (216). London: Imago.
- Gençoğlu, C., Alkan, E., & Koçyiğit, M. (2014). Bir mit olarak iyimserlik; Kızlar mı yoksa erkekler mi daha iyimser? [Optimism as a myth; are boys or girls more optimistic?] *Elektronik Sosyal Bilimler Dergisi* [Electronic Journal of Social Sciences], 13(50), 129-138.
- Gillham, J. E., Shatté, A. J., Reivich, K. J., & Seligman, M. E. (2001). Optimism, pessimism, and explanatory style. In Chang E. C. (Ed.), *Optimism and pessimism: Implications for theory, research, and practice*, (53-75). Washington: American Psychological Association.
- Griess, S. (2010). *Perceived parenting style and its relationship to hopefulness, happiness, and optimism in a college student sample*. (142). Doctoral Dissertation. Retrieved from [www.digscholarship.unco.edu](http://www.digscholarship.unco.edu)
- Güleri, M. (1998). Üniversiteli ve işçi gençliğin gelecek beklentileri ve kötümserlik-iyimserlik düzeyleri [Future expectations of university students and young workers and their levels of optimism and pessimism]. *Kriz Dergisi* [Journal of Crisis], 6(1), 55-65.
- Güloğlu, B. (2015). Öğrenilmiş iyimserlik [Learned optimism]. Tekinalp, B.E., & Terzi, Ş. I. (Eds.) *Eğitimde pozitif psikoloji uygulamaları* [Positive psychology practices in education] (pp.191-220). Ankara: Pegem.
- Hasan, N., & Power, T. G. (2002). Optimism and pessimism in children: A study of parenting correlates. *International Journal of Behavioral Development*, 26(2), 185-191.
- İnci, M. A., & Deniz, Ü. (2015). Baba tutumları ile çocuğun yaşı, cinsiyeti, doğum sırası ve kardeş sayısı değişkenleri arasındaki ilişkinin incelenmesi [Investigation of the relation between father attitudes and the variables of the child's age, gender, birth order and number of siblings] . *Karadeniz Sosyal Bilimler Dergisi* [The Blacksea Journal of Social Sciences], 7(02).
- Jackson, L. M., Pratt, M. W., Hunsberger, B., & Pancer, S. M. (2005). Optimism as a mediator of the relation between perceived parental authoritativeness and adjustment among adolescents: Finding the sunny side of the street. *Social Development*, 14(2), 273-304.
- Jiang, F., Jiang, Y., Zhi, H., Dong, Y., Li, H., Ma, S., Wang Y., Dong Q., Shen H., & Wang, Y. (2017). Artificial intelligence in healthcare: past, present and future. *Stroke and Vascular Neurology*, 2(4), 230-243.
- Kuzgun, Y., & Eldeleklioğlu, J. (2005). Anne baba tutumları ölçeği. [Parental attitudes scale]. In Y. Kuzgun & F. Bacanlı (Eds.) *Pdr'de kullanılan ölçekler* [The scales used in psychological counseling and guidance]. Ankara: Nobel Yayın Dağıtım.
- Loudová, I. & Lasek, J. (2015). Parenting style and its influence on the personal and moral development of the child. *Procedia Social and Behavioral Sciences*, 174(12), 1247-1254.

- Maccoby, E. E., & Martin, J. A. (1983). *Socialization in the context of the family. Handbook of child psychology: Vol 4* (pp. 1-102). Canada: John Wiley & Sons, Inc.
- Manzeske, D. P., & Stright, A. D. (2009). Parenting styles and emotion regulation: The role of behavioral and psychological control during young adulthood. *Journal of Adult Development, 16*(4), 223.
- McArthur, D., Lewis, M., & Bishary, M. (2005). The roles of artificial intelligence in education: Current progress and future prospects. *Journal of Educational Technology, 1*(4), 42-80.
- Minsky, M. (2007). *The emotion machine: Commonsense thinking, artificial intelligence, and the future of the human mind*. New York: Simon and Schuster Inc.
- Nes, L. S., & Segerstrom, S. C. (2006). Dispositional optimism and coping: A meta-analytic review. *Personality and Social Psychology Review, 10*(3), 235-251.
- Orejudo, S., Puyuelo, M., Fernández-Turrado, T., & Ramos, T. (2012). Optimism in adolescence: A cross-sectional study of the influence of family and peer group variables on junior high school students. *Personality and Individual Differences, 52*(7), 812-817.
- Öztürk, A., & Çetinkaya, R. (2016). Eğitim fakültesi öğrencilerinin öznel iyi oluş düzeyleri ile tinsellik, iyimserlik, kaygı ve olumsuz duygu düzeyleri arasındaki ilişki. [Relationship between education faculty students' subjective well-being, spirituality, optimism, anxiety and negative affectivity]. *Marmara University Atatürk Education Faculty [Journal of Educational Sciences], 42*(42), 335-356.
- Peterson, C., & Bossio, L. M. (2001). Optimism and physical well-being. In Chang E. C. (Ed.), *Optimism and pessimism: Implications for theory, research, and practice*, (53-75). Washington: American Psychological Association.
- Radziszewska, B., Richardson, J. L., Dent, C. W., & Flay, B. R. (1996). Parenting style and adolescent depressive symptoms, smoking, and academic achievement: Ethnic, gender, and SES differences. *Journal of Behavioral Medicine, 19*(3), 289-305.
- Rhee, K. E., Lumeng, J. C., Appugliese, D. P., Kaciroti, N., & Bradley, R. H. (2006). Parenting styles and overweight status in first grade. *Pediatrics, 117*(6), 2047-2054.
- Russell, S. J., & Norvig, P. (2016). *Artificial intelligence: a modern approach*. Malaysia; Pearson Education Limited.
- Seçer, İ. (2015). *SPSS ve LISREL ile pratik veri analizi [Practical data analysis with SPSS and LISREL]* ,(2nd ed). Ankara: Am Publishing.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction *American Psychological Association, 55*(1), 5.
- Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. *Handbook of Positive Psychology, 2*, 3-12.
- Shatte, A. J., Reivich, K., Gillham, J. E., & Seligman, M. E. (1999). Learned optimism in children. *Coping: The Psychology of What Works*, 165-181. Retrieved from [books.google.com](https://books.google.com)

- Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review*, 17(2), 125-146.
- Talib, J., Mohamad, Z., & Mamat, M. (2011). Effects of parenting style on children development. *World Journal of Social Sciences*, 1(2), 14-35.
- Tarhan, N. (2015). *Duyguların psikolojisi*. İstanbul: Timaş Yayınları.
- Van Gastel, W., Legerstee, J. S., & Ferdinand, R. F. (2009). The role of perceived parenting in familial aggregation of anxiety disorders in children. *Journal of Anxiety Disorders*, 23(1), 46-53.
- Weber, L. N. D., Brandenburg, O. J., & Viezzer, A. P. (2003). The relationship between parenting style and child's optimism. *Psico-USF*, 8(1), 71-79.
- Wolfradt, U., Hempel, S., & Miles, J. N. (2003). Perceived parenting styles, depersonalisation, anxiety and coping behaviour in adolescents. *Personality and Individual Differences*, 34(3), 521-532.
- Yalim, D. (2007). First year college adjustment: The role of coping, ego-resiliency, optimism and gender. *Unpublished doctoral dissertation*. Middle East Technical University, Ankara.
- Yavuzer, H. (2014). *Çocuk psikolojisi* [Child psychology]. (37th ed.). İstanbul: Remzi Kitabevi.
- Yılmaz, F. (2018). Robotlar hayatımızda [Robots are in our lifes]. *FSM İlmî Araştırmalar İnsan ve Toplum Bilimleri Dergisi* [FSM Scholarly Studies Journal of Humanities and Social Sciences], 12, 109-120.