

## Family environment and emotional quotient in primary school 3rd grade students

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### Abstract

In this research, Emotional Quotient (EQ) levels of 3rd grade primary school students are investigated with respect to a number of psycho-social variables. The EQ level is examined according to the income status of the family, education level and professions of parents and etc. Whether its environment makes a significant difference on eq when these variables are limited is examined. Target population of the study consists of 3rd grade primary school students who are registered to five middle socio-economic status schools in the city center and two townships' schools in the countryside within Izmir city borders in the 2015-2016 academic term. Sample group consists of randomly selected 167 students who are 3rd graders studying in the same classes in mentioned schools. Research is designed in relational screening model. In this research, personal information form and EQ scale for children both developed by researcher are used as data collection tools. For the statistical analysis of the collected data, independent samples t test, one-way analysis of variance, Kruskal Wallis, Mann Whitney U tests are used. According to the search results, EQ levels of 3rd grade students vary significantly with respect to family income, mother's and father's profession, mother's and father's educational level, household size and preschool experience. There are significant differences according to family income levels, mothers' professions and education levels, fathers' professions and education levels, the number of members of the students' families and whether students continue their pre-school education. The results are discussed on the basis of the literature and suggestions are presented..

Key words: Emotional intelligence; student; family; primary school; environment;

## 1. Introduction

In today's rapidly changing world, emotional quotient (EQ) has become as important a measurement as intelligence quotients (IQ). The impact of education on the development of EQ is unknown. It is thought that the EQ of a child may vary depending on the socio-economic status of their parents and schools. The ultimate intent of this study is to help parents grow and to offer suggestions for schools to implement. In this study, the emotional competences of primary-school children are analyzed within the scope of their socio-demographic characteristics.

As a different concept, the definition of "social intelligence" was introduced by Thorndike (1920). Guilford (1967) and subsequent psychologists also followed him. They defined social intelligence differently than "intelligence". They are considered as trends / traits with multiple causes and multiple consequences as social skills. Eysenck (1985) considered a model with three types of intelligence, biological, intellectual and social. According to this model, family, education, socio economic status and cultural factors affect EI (Furnham, 2012). Emotional competencies have been the subject of the study field of interest for researchers since the 1980s as a result of several studies on emotions. Emotional intelligence was first presented to in the context of helping regulate emotions. Gardner first laid the foundation of emotional intelligence with his theory of "multiple intelligences," where he posited that EQ is a feature of adapting to life with different perspectives and overcoming difficulties within a large number of contexts (Gardner, 1983, 1993). The majority of emotional intelligence research began in 1990s. Salovey and Mayer (1990) were the leading theorists who used the concept of emotional qualities. Mayer and Salovey (1990,1993, 1995) conceptualized their emotional qualities as the ability to manage them correctly and efficiently, including information about self-understanding, recognition and regulation of the individual and others. In the Emotional Intelligence (EI) Model of Mayer and Salovey (1993), EI is associated with the general ability but mainly it is a separate cognitive ability. They suggest that training programs based on emotional intelligence will be effective in its development. This model consists of four different abilities that develop as the individual matures. These are; noticing, understanding, organizing and managing emotions. Emotion perception involves perceiving the emotions of him/herself and others, non-verbal signs, as well as emotions in stimuli such as landscape and art.

An ability to find the truth by reasoning in different ways in a situation develops thinking (Mayer et al., 1997; 2003). It is a set of features that includes self-motivation, planning and regulating emotions to increase success in life (Salovey and Mayer, 1990; 2004). Goleman (1998) proposed five characteristics that make up emotional qualities: awareness of emotions, management, motivation, capacity to understand the other, and social skills.

The EQ is a system in which cognitive and emotional functions work correlatively. This system has five main parts. The first is self-knowledge: realizing an emotion while forming and sensing the emotion, and describing it. The second and third parts are related to management: controlling one's emotions and motivating oneself to action. These parts involve employing problem-solving abilities with the help of emotional knowledge. The fourth part is about empathy, and the fifth is about managing relationships, or social skills. Despite being divided into five main parts, the fundamental purpose of EQ is to organize the emotions (Mayer et al., 2000).

Researchers state that EQ is not an unalterable intelligence form, as the cognitive intelligences are; it can be improved and learnt not only in early childhood but also through all periods of development (Goleman, 1998, 2000, 2006). According to Bar-On (1997), emotional qualification is an ability that can improve over time or through training. Goleman's (1998) answer to the question of whether people are born to some extent with emotional competence capability, or whether they acquire them under the influence of their lives, is that both are correct. Emotional intelligence has a genetic part, but

nurture, environment and education also play a role. How far each of them is unknown is unknown, It is not known how much each of them contributed. However, research and applications clearly show that emotional intelligence can be learned.

The young ages are the time when learning is the most convenient and easy, in other words childhood is the best period. Eight- and nine-year-old children are peaceful, obedient, and tolerant, with diverse fields of interest. They generally do not focus on problems, they are well-adjusted, and they give importance to friendship, preferring group games. Emotional outbursts are not common in this age group; if one happens, it is severe and immediate but disappears quickly. Children of this age group do not have concerns about themselves (Baymur et al., 2008). Küçükkaragöz (2014) states that children in this age group have cognitive progress from abstract thinking towards concrete thinking. Children acknowledge that there are different points of views, and as a result, the level of aggression in these children is gradually reduced as they are developing their sharing and cooperation skills. The amount of aggression in peer relationships lessens, and the number of positive social behaviours increases. Eight- and nine-year-olds are highly sensitive to criticism. The support and appreciation given by their parents and teachers are very important to them (Baymur, et al., 2008). EQ can be developed in many ways. For example, carefully designed games and toys are a great means for development of EQ. Games and toys are defined as the most important activity in childhood and accepted as a unique educational experience and, must be selected in accordance with a child's age and development (Özgen, 2006).

It is the capacity of perceive the emotional signs of everything that exists (Mayer et al., 1990). It affects every field in human life, including health (Salovey, Rothman, Detweiler, and Steward, 2000). Research demonstrates that emotional intelligence (EI) has an important effect on success in different parts of existence (Bar-On and (Kobus) Maree, 2009; Maree and Ebersöhn, 2002; Demir, 2020). Managers with high EI perform better in leadership (Wirawan et al., 2019). Emotional intelligence is the integrity of personal qualities and social skills that can be learned by anyone as well as genetic competencies. Education has an important role in its acquisition. It is a structure that can be earned more easily from birth to youth and increases with age. (Shapiro, 1998; Roitman, 1999). Children with emotional qualities are more likely to lead a happier and successful family and business life in the future. (Goleman, 1998). EQ is a mental ability that affects individuals' interactions with their surroundings, life satisfaction levels, and academic achievements (Bar-On, 1997, 2000; Goleman, 1995). Some evidence shows that EI has a positively association with academic standing (MacCann et al., 2020). The number of studies conducted on EQ has increased in recent years, but there are relatively few studies about EQ levels of the students during the primary-school period.

The objective of this study is to examine whether the EQ levels of the students in primary school show significant differences with respect to a number of psycho-social variables. This study was aimed to examine EQ levels according to the psycho-social/demographic and parental characteristics that determine the family environment in which primary school children grow up. In this context, the research problem has been formed as follows.

What are the EQ levels of primary school students according to their gender, the family's socioeconomic status, the mother's and father's occupations, the education of the mother and father, number of family members (household size) and whether a child attended preschool or not?

### **1.2. Sub-problems**

The sub-problems of this study are as follows:

Is there a significant difference in EQ scores among third-grade primary school students in correlation with gender, the family's socioeconomic status, the mother's occupation, the father's

occupation, the education of the mother, the education of the father, number of family members (household size) and whether a child attended preschool or not.

## 2. Method

### 2.1. Research model

This research was designed in descriptive scanning model. Descriptive research is used to describe the characteristics of the subject matter being studied with an objective approach. In these models, a sample taken from it is studied to make a decision about the universe consisting of many elements (Karasar, 2012 77; Büyüköztürk, Çokluk and Köklü, 2012).

### 2.2. . Research group

The target group of the research consists of third grade primary school students. They were registered in five low, middle, or upper socioeconomic status schools in the city's center and two small-town schools in the countryside near Izmir city center. The research group consisted of 167 randomly selected third graders studying in the same classes in the previously mentioned schools. Frequency and percentage distributions of the sample group by variables are presented in Table 1.

**Table 1. Frequency and percentage distributions of the sample group according to the variables.**

<b>Gender</b>	Girl	90	53.9
	Boy	77	46.1
<b>Income class</b>	Low	23	13.8
	Middle	64	38.3
	Upper-middle	54	32.3
	High	26	15.6
<b>Mother's occupations</b>	Housewife/Retired	118	70.7
	Teacher/Doctor/Artisan/Cosmetician/Insurer/etc	49	29.3
<b>Father's occupations</b>	Worker/Farmer	57	34.1
	Teacher/Officer/Engineer/Medical staff/etc.	31	18.6
	Tradesman/Artisan	29	17.4
	Police /Army officer/Driver	50	29.9
<b>Mother's education</b>	Illiterate	19	11.4
	Literate	51	30.5
	Secondary school graduate	19	11.4
	High school graduate	32	19.2
<b>Father's education</b>	University	46	27.5
	Illiterate	9	5.4
	Literate	21	12.6
	Primary-school	37	22.2
	Secondary-school	16	9.6
<b>Number of Family Members</b>	High-school	34	20.4
	University	50	29.9
	3	26	15.6
	4	80	47.9
	5	39	23.4
	6 +	22	13.2

	Attended	118	70.7
<b>Preschool education</b>	Did not attend	49	29.3
<b>Total</b>		167	100

As seen in Table 1, 90 girls(53.9%) and 77 boys(46.1%) from the third grade students in this study. 23 students (13.8%) were the members of low-income families, 64 students (38.3%) were members of middle-income families, 54 students (32.3%) were from upper-middle-income families, and 26 of them (15.6%) were members of high-income families.

118 mothers were in the housewife/retired (70.7%) category, and 49 of them were teachers/doctors/artisans, etc. (29.3%). 57 of the fathers were workers or farmers (34.1 %); 31 of them were teachers, officers, engineers, etc. (18.6%); 29 of them were tradesmen (17.4%); and 50 of them were police officers, army officers, or drivers (29.9%).19 mothers (11.4%) were illiterate. The number of the primary school graduate was 51 (30.5%). There were 19 secondary-school (11.4%), 32 high-school (19.2%), and 46 mothers with a university graduate or higher (27.5%).

For the fathers of the third-grade students, nine (5.4%) were illiterate. 21 of the fathers (12.6%) were literate but did not have any degree. The number of the primary school graduate fathers was 37 (22.2%). There were 16 secondary-school graduates (9.6%), 34 high-school graduates (20.4%) and the number of fathers with a university graduate or higher were 50 (29.9%).

The household size of the third-grade students participating in the study is also shown in Table 1. There were 26 students (15.6%) whose household consisted of three people, 80 students (47.9%) whose household size was four, 39 students (23.4%) from a family composed of five members, and 22 students (13.2%) whose families were composed of six members or more. 118 participants (70.7%) stated that they had attended preschool, and 49 (29.3%) did not.

### **2.3. Data collection tools**

The data was collected with the help of following measurement tools:

#### **2.3.1. Student Information Form**

A questionnaire consisting of the personal information of the participants was used. The form’s socio-demographic information included the variables of gender, age, family income, mother’s and father’s occupations, mother’s and father’s education, number of family member (household size) and preschool experience. There were eight questions about the participants on the form.

#### **2.3.2 EQ Inventory for children (EQ-CS)**

In order to collect the EQ levels data of the participants, the “EQ scale for children” (EQSC) was prepared by Küçükkaragöz (2013). For the development of the scale, an open-ended question was given to the primary school teachers of 8 graduate students studying under the "social emotional intelligence in human relations" course by the researcher.

A pool of 57 items was created from the responses received. These items were reviewed by the 5 class teachers, 2 educational scientists, an associate professor in the field of guidance and a doctorate student for the content validity. As a result, 35 items were determined to be usable. The scale was applied to 465 students studying in secondary socio-economic schools. The first scale consists of 35 items. Nine of them were excluded from the scale due to low intra-item correlation ( $r < .30$ ). The last scale consisted of 26 items. Cronbach’s alpha value is .88.

The scale was developed using items based on youth form of Bar-On's Dimensions of Emotional Intelligence scale (1997) (EQ-i), measuring assertiveness, self-regulation, motivation, to understand one's thoughts and behaviours and social skills. The EQSC, a 26-item test for the students, had 24 positive statements and two negative statements (items 21 and 24). The EQ scale for children was constructed in the Turkish language. The scale was a four-point Likert scale (definitely wrong (1), sometimes true (2), mostly true (3) and definitely true (4)), with two reverse-scored items. The lowest and highest scores that could be obtained from the scale were 26 and 104, respectively.

Some examples of the items on the test are: "Arkadaslarımı incitmemeye calisirim," (I try not to hurt my friends); "Günümü güzel geciririm," (I spend my day well); "Herseye kolayca üzülürüm"( I'm easily upset by everything).

## 2.4. Data Analysis

The analysis was carried out on the EQ scores of the primary-school students in relation to their psycho-social characteristics. Researchers focused on the significant differences between the two variables. Scores (averages) for each student were calculated and statistically analyzed by using SPSS 15.0. Significant difference was determined as  $*p < 0.05$ .

Independent sample t-tests, one-way analysis of variance (ANOVA)s, Kruskal-Wallis tests, and Mann-Whitney U tests were utilized in order to identify the differential of the participants' EQ scores. As a result of the variance analysis, if was found to be significant, LSD and Tukey tests were performed in order to determine the reason for the variance. In order to check the distribution of the data obtained from the participants' point scores on the scale, the Kolmogorov-Smirnov test was applied. A Levene test was used to control homogeneity of variance.

## 3. Results

Analysis results are presented by sub-problem respectively below:

### 3.1. EQ levels of third-grade Students by Gender

The results of a t test that was performed in third-grade students' EQ scores in Table1. A significant difference was not found according to gender.

**Table 2. EQ scores: t-test results by gender of third-grade students**

Gender	<i>N</i>	<i>Mean</i>	<i>Sd</i>	<i>df</i>	<i>t</i>	<i>p</i>
Girl	90	88.733	11.808	165	-.147	.883
Boy	77	89.000	11.575			
Total	167					

Table 2 displays the results of a t test that was performed in order to see whether third-grade students' EQ scores don't showed a significant difference by gender. Boys' EQ score averages ( =89.000; SD = 11.575) do not show a significant difference ( $t(165) = -.147$ ;  $p = .883$ ) to girl students' EQ score averages ( = 88.733; SD= 11.808) s [ $t = -147$ ;  $p = 0.883 > 0.05$ ].

### 3.2. EQ levels of third-grade Students by Perceived Family Socio-Economic Status

A one-way variance analysis test (ANOVA) was performed in order to see whether third-grade students' EQ scores showed a significant difference according to their family income levels. The family

socio-economic levels were classified as low (1), middle (2), upper-middle(3) and high (4). Students' EQ scores show a significant difference by family socio-economic level ( $F(3) = 3.206$ ;  $p = .025$ ).

**Table 3. EQ scores: f-test results by student's perceived family socio-economic status**

Sources of variance	Sum of Squares	df	Mean Square	F	p	Difference
Between groups	1258.928	3	419.643	3.206	25*	1-2,1-3,1-4
Within groups	21337.623	163	130.906			
Total	22596.551	166				

An LSD test was performed in order to understand how the results varied by group. As a result, the EQ scores of students of a low socio-economic level (1) ( $\bar{X} = 82.521$ ;  $sd = 10.478$ ) are lower than those of students with a middle socio-economic level (2) ( $\bar{X} = 88.703$ ;  $sd = 11.503$ ), an upper-middle socio-economic level (3) ( $\bar{X} = 91.24$ ;  $sd = 11.992$ ) and a high socio-economic level (4) ( $\bar{X} = 89.884$ ;  $sd = 10.886$ ).

### 3.3. EQ levels of third-grade Students by Mothers' Occupation

A t-test was performed in order to see whether third-grade students' EQ scores showed significant differences according to their mothers' occupations

**Table 4. EQ scores: f-test results by mothers' occupation**

Mothers' Occupation	N	Mean	Sd	df	t	p
Housewife/Retired	118	86.745	11.839	165	-3.769	.000
Teacher/Doctor/Shopkeeper	49	93.938	9.579			
Total	167					

\* $p < 0.05$

The mothers' occupations were classified into the categories of housewife/retired (1) and teacher/doctor/shopkeeper/etc. (2). The results show that the average EQ scores of students whose mothers are in the category (1) ( $\bar{X} = 86.745$ ;  $ss = 11.839$ ) are lower ( $t(165) = -3.769$ ;  $p = .000$ ) than those of students whose mothers are in the category (2) ( $\bar{X} = 93.938$ ;  $ss = 9.579$ ).

### 3.4. EQ levels of third-grade Students by Occupations of Fathers

A one-way variance analysis test (ANOVA) was performed in order to see whether third-grade students' EQ scores showed significant differences with respect to the occupations of their fathers. The fathers' occupations were classified as worker/farmer (1), teacher/officer/nurse/engineer/etc. (2), shopkeeper (3), and assistant employee/police officer/driver/soldier/etc.(4). Students' EQ scores show a significant difference according to the occupations of their fathers ( $F(3) = 8.3546$ ;  $p = .000$ ).

**Table 5. EQ scores: f-test results by fathers' occupation**

Sources of variance	Sum of Squares	df	Mean Square	F	p	Difference (LSD)
Between groups	3011.263	3	1003.754	8.354	.000	* 1-2, 1-3, 1-4
Within groups	19585.288	163	120.155			
Total	2596.5512	166				

\* $p < .001$

An LSD test was performed in order to understand how the results varied by group. The results show that students whose fathers were in the worker / farmer category (1) (= 83.596; sd = 11.313) had lower EQ scores than students whose fathers were teachers / officers / nurses / engineers. Category (2) (=95.354; ss=6.488), the shopkeeper category (3) (=90.344; sd=12.536), and the assistant employee/police officer/driver/soldier/etc. category (4) (=89.960; sd= 11.740). 2.01–2.50

### 3.5. EQ levels of third-grade Students by Education Level of Students' Mothers

A one-way variance analysis test (ANOVA) was performed in order to see whether third-grade students' EQ scores showed significant differences in relation to the education level of students' mothers.

**Table 6. EQ scores: f-test results by mothers' education level**

Sources of variance	Sum of Squares	df	Mean Square	F	p	Difference (Tukey)
Between groups	82.460	4	1395.615	13.288	.00	*1-2, 1-3, 1-
Within groups	17014 091	162	105.025		0	4, 1-5
Total	22596.551	166				

\* $p < .001$

Education levels of students' mothers were classified as illiterate (1), literate (2), secondary-school (3), high-school (4), and university graduate (5). Students' EQ scores show a significant difference when considering the education level of students' mothers ( $F(4) = 13.288$ ;  $p = .000$ ). Tukey's HSD test was performed in order to understand how the results varied by group. It can be seen that the EQ scores of the students whose mothers are illiterate (1) (=76.263, sd= 11.807), are significantly lower than those whose mothers are literate (2) (=86.568, ss= 10.313), graduated secondary school (3) (=88.210, sd= 11.370), graduated high school (4) (=90.375; sd= 11.666), or graduated university (5) (=95.804, sd= 7.658).

### 3.6. EQ levels of third-grade Students by by Education Level of Fathers

The Kruskal-Wallis test was performed in order to see whether third-grade students' EQ scores showed significant differences according to the father's education.

**Table 7. EQ scores: kruskal-wallis test results by father's education level**

Father's education	N	Average sequence	$\chi^2$	df	p	Difference
Illiterate	9	56.67	35.537	5	.000	1-5
Literate	21	47.86				1-6
Primary school	37	66.81				2-5
Secondary school	16	87.13				2-6
High school	34	91.41				3-5
University	50	110.78				3-6
Total	167					

\* $P < .001$

The Kruskal-Wallis test was performed in order to see whether third-grade students' EQ scores showed significant differences according to the education level of their fathers. The education levels of students' fathers were classified as illiterate (1), literate (2), secondary (3) and high school (4), and university graduate (5). As a result of the Kruskal-Wallis test, it has been found that there is a

significant difference in students' EQ scores according to the according to their father's education ( $X^2= 35,537$ ,  $p < 0,05$ ). The Mann-Whitney HSD test was performed in order to understand how the results varied by group. The EQ scores of the students whose fathers are illiterate (1), literate (2), or primary school graduates (3), are significantly lower than those of students whose fathers are high-school graduates (5) or university graduate (6).

### 3.7. EQ levels of third-grade Students by Number of Members in Students' Family

A one-way analysis of variance (ANOVA) was performed to see if the students' EQ scores differ significantly from the number of members in a student's family.

**Table 8. EQ scores: f-test results by number of family members**

Sources of variance	Sum of Squares	df	Mean Square	F	p	Difference (LSD)
Between groups	1895.024	3	631.675	4.974	.002	* 3-1, 3-2
Within groups	20701.527	163	127.003			
Total	22596.551	166				

\* $p < .05$

The number of family members, including the student, was classified into the groups three (1), four (2), five (3), and six or more (4). There is a significant difference between the EQ scores according to the number of family members ( $F(3) = 4.974$ ;  $p = .002$ ). An LSD HSD test was performed in order to understand how the results varied by group. The results show that the EQ scores of the students whose families consist of five people (3) ( $=83.230$ ;  $ss=11.510$ ) are significantly lower than those of students whose families consist of three people (1) ( $=92.884$ ;  $sd= 9.667$ ) and four people (2) ( $=90.525$ ;  $sd=12.349$ ).

### 3.8. EQ levels of third-grade Students by whether students attended preschool

As seen in Table 9, a t-test was performed in order to see whether third-grade students' EQ scores showed significant differences based on whether students attended preschool.

**Table 9. EQ scores: t-test results by preschool education**

Preschool	N	Mean	Sd	df	t	p
Attended	118	91.033	10.501	165	3.900	.000*
Did Not Attend	49	83.612	12.737			
Total	167					

\* $P < .001$

As seen in Table 9, a t-test was performed in order to see whether third-grade students' EQ scores showed significant differences based on whether students attended preschool. The EQ score averages of students who did not attend preschool show a significant difference ( $t(165) = 3.900$ ;  $p = .000$ ) to the EQ score averages of students who did attend preschool ( $91.033$ ;  $sd = 10.501$ ). The EQ score averages of students who did not attend preschool ( $=83.612$ ;  $sd = 12.737$ ) are lower than the EQ score averages of students who did attend preschool ( $91.033$ ;  $sd = 10.501$ ).

## 4. Discussion and conclusion

For the first sub-problem investigated by the research, the results related to the EQ level of third-grade elementary school students by gender are as follows: boys' EQ score averages do not show a significant difference in comparison the scores for girls. In another study, emotional intelligence results were significantly different between girls and boys, and girls had higher levels of emotional intelligence (Harrod & Scheer, 2005). In study by Certel et al. (2011) in relation to some dimensions also support this finding. The boys' EQ score averages showed a significant difference to those of girls'. Boys' scores were lower than the girls' scores. Another study by Ahmad et al. (2009) suggested that males are more emotionally qualities than females.

The results of this research did show some similarities with the results of other research. There are studies showing that EQ does not differ according to gender. In the research of Satman (2018), EQ levels of middle school students and Deniz and Yilmaz (2009) university students did not find a significant difference. Girgin (2009; 2009b) did not find a difference between the student's gender and emotional intelligence. Yalız (2013) stated in his study; there is no difference according to the personal skills, interpersonal skills, compatibility, and general mood dimensions, which are sub-dimensions of EQ level, by the gender of students. This result could be explained by the fact that children are in the latent period of this developmental stage: gender roles between boys and girls in this period are too undifferentiated.

In regard to the third-grade students' EQ level as related to the family's socio-economic status, the EQ level for those of low socio-economic level is lower than the EQ level for students from middle-, upper-middle, and high family socio-economic status. These findings show similarities with the results of research by Korkmaz. However, his study was completed using fourth and fifth graders and related to emotional optimism of their parents. Differences were significantly related to socio-economic level. The ability of parents with high socio-economic status to express their feelings was higher than that of the parents with other socio-economic status (Korkmaz, 2008). In Harvey and Scheer's (2005) research, the emotional quotient of girls was related to the educational status and financial status of their family: As the family income level increased, girls' EQ scores also increased.

The mothers' occupations were classified into a housewife/retired category and a teacher/doctor/shopkeeper/etc. category. The average EQ scores for students whose mothers are a housewife or are retired are significantly lower than those whose mothers are teachers, doctors, shopkeepers, etc.

The fathers' occupations were classified into the categories of worker/farmer, teacher/officers/nurse/engineer/etc.; shopkeeper; assistant employee/police officer/driver/soldier, etc. Third-grade students' EQ scores are significantly different according to the occupations of their fathers' quotient. The EQ score averages for the students whose fathers are workers or farmers are significantly lower than those for students whose fathers fall into the other categories.

It can be said that the education of the mother affects the child's EQ.

The EQ scores of students whose mothers are illiterate are significantly lower than the EQ scores of students whose mothers are literate, a secondary education graduate, a high-school graduate, or a university graduate.

These findings show some similarities with the results of other research. In another study, teacher candidates' EQ scores differ according to the mothers' education. Students with higher mother education also have high EQ scores (Yılmaz ve Şahin, 2004). In another study of socio-economic level, as the education level of the mothers is higher, their child acceptance behaviour improves (Erkan & Toran, 2004).

Participants who have father education high school and university education are significantly higher than those whose father has a lower education The fathers' occupations al status, more occupations ally the working class relies on a rich cultural, intellectual and learning environment for children

estimates the father's occupations, children's cognitive ability, academic achievement and it envisages psychosocial-emotional well-being (Gottfried et al., 2003).

These findings yield similar results to other research in one study; there was a difference between preschool teacher candidates' EQ and those of individuals whose fathers were high-school graduates when both were compared to university graduates (Yılmaz & Şahin, 2004). In Harvey and Scheer's (2005) research, the education of the father was determinant of the emotional intelligence of the adolescents. As the fathers' education level increased, the children's EQ increased.

There is a significant difference between the EQ levels of third-grade students when considering the number of family members they have (household size). The EQ scores for the students whose families consist of 5 people are significantly lower than those of students whose families consist of 3 people and 4 people. One possible conclusion is that as the education level of family members rises, the child's EQ level rises as well.

The students' EQ scores also show a significant difference in relation to whether they attended preschool or not. The EQ scores of the students who did not attend preschool are lower than the EQ scores of the students who did attend preschool. Early childhood is considered one of the primary stages of a person's cognitive, social and psychological development. Education in this period has a positive effect on EQ level within the scope of this study. Therefore, it is advisable that preschool education be made necessary for all children. As Bar-On (2003) points out, EQ can develop with training. It is necessary to treat the child as a whole physically, mentally, emotionally and socially. For this reason, the level of civilization in a society is measured by the value and services it gives to its children (Gürkaynak, 1979). Kasapoğlu and Güneysu (2017) revealed that emotional intelligence features are learned especially by children who engage with creative drama activities. If children are given the opportunity to learn in appropriate ways, they can learn to be empathetic and happy.

## 5. Recommendation and conclusion

It is possible to empower future generations to grow up as healthy individuals by increasing their EQ levels along with providing a good education. These young people will be the parents of the future. For this reason, it would be wise to do everything possible to help young children to continue their education. Improving the psychosocial and financial aspects of a child's life would also bring positive contributions to the child's EQ level. Parents should also be given opportunities for lifelong learning. Positive socio-economic environment conditions have positive effects on the development of EQ of children. For this reason, progress in social, cultural, and economic areas of life must be shared among all levels of a society. As the social status of the family unit increases, the EQ of the child will also be able to develop. Children can be raised with higher EQ by minimizing the effects of poverty.

The conclusions of this research are limited to the third grade students of the primary school students of public schools in Izmir. The research can be executed more comprehensively through extending the study groups studying in different city schools and grades.

## References

- Bar-On R. &(Kobus) Maree J.G. (2009). In search of emotional–social giftedness: A potentially viable and valuable concept. In L.V. Shavinina (Ed.), *International Handbook on Giftedness* (pp. 559–570). Springer [https://doi.org/10.1007/978-1-4020-6162-2\\_26](https://doi.org/10.1007/978-1-4020-6162-2_26)
- Bar-On, R. (1997). Development of the BarOn EQ-i: A measure of emotional and social intelligence [Conference presentation. Paper presented at the 105th Annual convention of APA, Chicago, IL, United States.
- Bar-On, R. (2003). How important is it to educate people to be emotionally and socially intelligent, and can it be done? *Perspectives in Education*, 21, 3–13.

- Bayhan, P. & Artan, İ. (2004). Child Development and Education (Çocuk Gelişimi ve Eğitimi). Morpa Publications.
- Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science*, 11, 7–10.
- Büyükoztürk, Ş., Çokluk, Ö. & Köklü, N. (2012). Statistics for social sciences (11th Edition (Sosyal bilimler için istatistik (11. Baskı). Ankara: Pegem Yay.
- Caruso, D & Salovey, P. (2010). Yönetimde duygusal zeka(çev. Süheyla Kaymak)(Emotional intelligence in management) İstanbul: Crea Yayıncılık
- Certel, Z., Çatıkkaş, F. & Yalçınkaya, M. (2011). The analysis of EI and the critical thinking of the prospective teachers of Physical Education (Beden Eğitimi Öğretmen Adaylarının Duygusal Zeka İle Eleştirel Düşünme Eğilimlerinin İncelenmesi). *Selçuk University Journal of Physical Education and Sport Science*, 3(1), 74-81
- Demir, B. (2020). Evaluation of social studies teaching textbooks. *International Journal of Learning and Teaching*, 12(1), 17-29. <https://doi.org/10.18844/ijlt.v12i1.4563>
- Deniz, M.E. & Yılmaz, E. (2004). The relation of emotional intelligence skills and life satisfaction of university students. (Üniversite öğrencilerinin duygusal zekâ yetenekleri ve yaşam doyumları arasındaki ilişki). XIII. National Educational Sciences Congress, 6-9 July 2004 İnönü University, Faculty of Education, Malatya.
- Erkan, S. & Toran M. [2004]. A study on the acceptance and rejection behaviors of mothers from lower socio-economic levels (On Diyarbakır sample)( Alt sosyo-ekonomik düzey annelerin çocuklarını kabul ve reddetme davranışlarının incelenmesi (Diyarbakır ili örneği). *Hacettepe University Eğitim Fakültesi Dergisi* 7: 91-97,94.
- Furnham, A. (2012). Emotional intelligence. In Emotional Intelligence,A.DiFabio (Ed), in *New Perspectives and Applications*.(1–24) <https://doi.org/10.5772/31079>
- Gardner, H. (1983). Multiple intelligences. The theory in practice. Basic Books.
- Gardner, H. (1993). Creating minds: An anatomy of creativity seen through the lives of Freud, Einstein, Picasso, Stravinsky, Eliot, Graham, and Gandhi. Basic Books.
- Girgin, G. (2009). The Investigation of Emotional Intelligence in Universty Students to Some Variables (Üniversite öğrencilerinde duygusal zekânın bazı değişkenler açısından incelenmesi). *KKTC Milli Eğitim Dergisi - TRNC Journal of National Education*, 3, 1–12.
- Girgin, G. (2009b). Evaluation of effects of some variables on emotional intelligence in student teachers.( Öğretmen adaylarında duygusal zekanın bazı değişkenler açısından incelenmesi). *Manas Journal of Social Studies*,11(22) ,131–140. Retrieved from <http://dergipark.org.tr/tr/pub/manassosyal/issue/49930/639835>
- Goleman, D. (1995). Emotional intelligence. Bantam Books.
- Goleman, D. (1996). Emotional Intelligence: Why it can matter more than IQ. *Learning*, 24(6), 49–50. <https://eric.ed.gov/?id=EJ530121>
- Goleman, D. (1998). Emotional Intelligence (Duygusal Zeka). (1.Baskı). Varlık Yayınları.
- Goleman, D. (1998). Working with emotional intelligence. Bantam Books.
- Goleman, D. (2000). Emotional Intelligence (Duygusal Zeka) (B.S.Yüksek, çev.). Varlık / Bilim. Yay.
- Goleman, D. (2006). Emotional İntelliğence: Why it can matter more than IQ (Duygusal Zeka Neden IQ'dan Daha Önemlidir). (30.Baskı). Varlık Yayınları. (Original work published 1995).
- Gottfried, A. W., Gottfried, A. E., Bathurst, K., Guerin, D. W. & Parramore, M. M. (2003). Socioeconomic status in children's development and family environment: Infancy through adolescence. In M. H. Bornstein & R. H. Bradley (Eds.), *Socioeconomic Status, Parenting, and Child Development* (pp. 189–207). Erlbaum.
- Gürkaynak, İpek (1979). Sosyo-Ekonomik Düzey ve Çocuk (Socio-Economic Level and Child), Associate professor thesis( Doçentlik Tezi ). AU Faculty of Education, 2 Ankara.
- Harrod, N. R. & Scheer, D. S. (2005). An Exploration of adolescent emotional intelligence in relation to demographic characteristics, 4, (159). Libra Publishers.
- Karasar, N. (2012). Research Methods Bilimsel (Araştırma Yöntemi). (24. Basım). Nobel Yayınları
- Kasapoğlu, H. & Güneysu, S . (2017). An Examination of The Views of Students on Using Creative Drama in Developing Emotional Intelligence Skills (Öğrencilerin Duygusal Zeka Becerilerinin Geliştirilmesinde Yaratıcı Dramanın Kullanılmasına İlişkin Görüşlerin İncelemesi). *Kastamonu Education Journal*, 25 (3),1039-1054. <http://dergipark.org.tr/tr/pub/kefdergi/issue/29417/320518>
- Korkmaz, B. (2008). The analysis of correlation between the educational expectations of the parents and the level of emotional intelligence of the parents of 4th and fifth grade students (İlköğretim 4. ve 5. Sınıf Öğrencilerinin Anne-Babalarının Duygusal Zeka Düzeyleri İle Eğitim Beklentileri Arasındaki İlişkinin İncelenmesi). Unpublished The dissertation of Master's Thesis. Institute of Educational Sciences, İstanbul.
- Küçükkaragöz, H. (2013). Cognitive and Language Development (Bilişsel gelişim ve dil gelişimi).B. Yeşilyaprak (Ed.), in *Education Psychology*, 84–122. Pegem Yay.
- MacCann, C, Jiang, Y., Brown, Luke E. R., Double, Kit, S., Bucich, M., & Minbashian,A. (2020).Emotional Intelligence Predicts Academic Performance: A Meta-Analysis, *Psychological Bulletin*,146(2),150 –186. <http://dx.doi.org/10.1037/bul0000219>

- Maree, J.G. & Ebersöhn, L (2002). Emotional intelligence and achievement: redefining giftedness.? *Gifted Education International*, 16(3), 261–73. <https://doi.org/10.1177/026142940201600309>
- Mayer, J. D. & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.) *Emotional Development and Emotional Intelligence: Implications for Educators* (pp. 3–31). Basic Books.
- Mayer, J. D. & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied & Preventive Psychology*, 4, 197–208. [https://doi.org/10.1016/S0962-1849\(05\)80058-7](https://doi.org/10.1016/S0962-1849(05)80058-7)
- Mayer, J.D. & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17, 433–442. [https://doi.org/10.1016/0160-2896\(93\)90010-3](https://doi.org/10.1016/0160-2896(93)90010-3)
- Mayer, J.D., Dipaolo, M.C., & Salovey, P.(1990).Perceiving affective content in ambiguous visual stimuli: a component of emotional intelligence. *Psychology, Medicine Journal of personality assessment*. 1990 Summer;54(3-4):772-81. PMID: 2348356 <https://dx.doi.org/10.1080/00223891.1990.9674037>
- Mayer, J.D., Salovey, P & Caruso, D.R. (2004). Emotional intelligence: Theory, findings, and implications.*Psychological Inquiry*, 15(3),197–215. [https://doi.org/10.1207/s15327965pli1503\\_02](https://doi.org/10.1207/s15327965pli1503_02)
- Mayer, J.D., Salovey, P., & Caruso, D. R. (2000). Models of emotional intelligence. In R. J. Sternberg (Ed.), *Handbook of Intelligence* (pp. 396–420). Cambridge University Press.
- Mayer, J.D.,Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence*, 27, 267–298. [http://dx.doi.org/10.1016/S0160-2896\(99\)00016-1](http://dx.doi.org/10.1016/S0160-2896(99)00016-1)
- Özgen, Ö. (2006). Achievement and Emotional Intelligence role in the relationship (Başarı ve İlişkide Duygusal Zekanın Rolü), Gazi Üniiversity, Faculty of Education, Department of Secondary Science and Mathematics Education, Ankara.
- Salovey, P. & Mayer,J.D. (1990). Emotional intelligence. *Imagination, cognition and personality*. 9, 185–211. <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>
- Salovey, P., & Mayer, J. D. (2004). Emotional intelligence. In P. Salovey, M. A. Brackett, and J. D. Mayer (Eds.),*Emotional Intelligence: Key Readings on the Mayer and Salovey Model* (pp. 1–27).Dude Publishing.
- Salovey, P., Rothman,A.J.,Detweiler, J.B. & Steward, W.T.( 2000). Emotional states and physical health. *American Psychologist*, 55 (1), 110–121 <https://doi.org/10A037//0003-066X.55.1.110>
- Satman, M. C. (2018). The investigation of the relation between middle-class students’ EQ levels and moral decision-making attitudes in sports (Ortaokul öğrencilerinin duygusal zeka düzeyleri ile sporda ahlaki karar alma tutumları arasındaki ilişkinin incelenmesi). *Journal of Human Sciences*, 15(1), 635–645. <https://www.j-humansciences.com/ojs/index.php/IJHS/article/view/5095>
- Shapiro, L. E.(2000). Raising a Child with High EQ (Yüksek EQ’lu Bir Çocuk Yetiştirmek). (5. Baskı), Varlık Yayınları.
- Thorndike,E.L.(1920).Intelligence and its uses. *Harper’s Magazine*, 228–229. <https://www.gwern.net/docs/iq/1920-thorndike.pdf>
- Wirawan, H.,Tamar, M.&Bellani,E.(2019). Principals’ leadership styles: The role of emotional intelligence and achievement motivation, *International Journal of Educational Management*, 33(5), 1094–1105. <https://doi.org/10.1108/IJEM-04-2018-0127>
- Yalız, D. (2013). Investigation Anadolu University Department of Physical Education and Sports Teacher of Students Study of the Emotional Intelligence EQ Level (Anadolu Üniversitesi Beden Eğitim ve Spor Öğretmenliği Bölümü Öğrencilerinin Duygusal Zeka Düzeyleri İncelenmesi). *Pamukkale Journal of Sports Sciences* 4(2), 94–111.
- Yılmaz, M. & Şahin, Ş.(2004). Investigation of Emotional Intelligence Levels of Preschool Teacher Candidates According to Various Variables (Okul Öncesi Öğretmen Adaylarının Duygusal Zeka Düzeylerinin Çeşitli Değişkenlere Göre İncelenmesi). XII. National Educational Sciences Congress, İnönü University, Faculty of Education, 6–7 July, Malatya.
- Yılmaz, M. ve Dicle, A.N. (2007). Investigation of social skills levels of university students according to their emotional intelligence levels and some personal characteristics. (Üniversite öğrencilerinin sosyal beceri düzeylerinin duygusal zeka düzeyleri ve bazı kişisel özelliklerine göre incelenmesi). Unpublished Master’s Thesis,, Ondokuz Mayıs Üniversitesi, Institute of Social Sciences.