



## Investigation of the Level of Secondary School Students' Emotional Intelligence in Terms of Different Variables

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### ABSTRACT

According to the existing research, emotional intelligence includes skills that can be developed. In many studies conducted in the literature, it is emphasized that emotional intelligence skills are not stable rather continuously change and develop. In the current study, it is aimed to investigate the level of secondary school students' emotional intelligence (11-14 years old) in terms of different variables (gender, grade level, parents' education level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or the environment playing the most important role in the growth of the individual, experiencing difficulty or not in making friends). The current study is designed in the descriptive survey model. The study group is comprised of a total of 920 students (483 females, 437 males) attending different state schools in the city of Denizli in the spring term of the 2018-2019 school year. As the data collection tools, "The BarOn Emotional Intelligence Scale (Child and Adolescent Form)" and a "Personal Information Form" were used in the current study. The collected data were analyzed in SPSS 22.0 program package. The data were analyzed by using Multivariate Analysis of Variance (MANOVA). As a result of the research, it was found that secondary school students' emotional intelligence levels significantly vary depending on the variables such as grade level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or environment playing the most important role in their growth, father's education level and experiencing difficulty or not in making friends. However, no significant difference was found in the students' levels of emotional intelligence based on gender and mother's education level.

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Keywords:

Emotional intelligence, BarOn emotional intelligence scale, secondary school students.

### 1. Introduction

In recent years, it has been understood that academic success is not a major factor in one's being successful in life. Kaya (2004) stated that an individual may have a very good profession because of his/her academic success, but whether he/she can be a good spouse, a good father or mother or a good manager is largely determined by his/her emotional intelligence. Pişkin (2007) noted that from time to time people who are successful in their education life cannot be so successful in their business life while people who are poor performers in their school life can be highly successful in their business life. He emphasized that this is because of the fact that the competencies required to be successful in school and the competencies required to be successful in business life are different and that while Intelligence Quotient (IQ) is more important for success in education life, Emotional Quotient (EQ) is more important for success in life and business. The fact that most of the academically successful people were not successful in life, that they were not satisfied with their

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lives and that they could not establish good social relations caused the concept of emotional intelligence to gain greater importance.

The concept of emotional intelligence, which became popular with Daniel Goleman's (1995) book "Emotional Intelligence: Why It Can Matter More Than IQ", began to come to the fore in the 1990s. The concept was first used academically by Payne (1985). Then it was scientifically addressed by Salovey and Mayer (1990). Emotional intelligence has been defined in different ways by many scientists. According to Mayer and Salovey (1993), emotional intelligence is the ability to be aware of the emotions of one's self and those around him/her, to distinguish different emotions and to reflect this awareness in his/her behaviours. Emotional intelligence requires reasoning and problem-solving skills (Mayer and Salovey, 1997; Mayer, Salovey and Caruso, 2004; Salovey and Mayer, 1990). According to BarOn (1997), emotional intelligence is the individual, emotional and social skills and competences that enable one to cope with the pressures and expectations coming from the environment. According to Cooper and Sawaf (2010), emotional intelligence is the driving force that brings out one's own potential and leads him/her to the goal. Goleman (2016) argues that emotional intelligence is the ability to recognize emotions, to internalize relationships related to emotions, to acquire and manage emotion information. According to Reiff et al. (2001, p.70), emotional intelligence is defined as the type of intelligence that is responsible for an individual's ability to manage his or her relationships with others. It is all behaviours, competencies, beliefs and values that enable a person to accomplish his vision and mission successfully. In this context, emotional intelligence is a whole consisting of self-awareness, continuity, self-motivation, empathy and social relationship establishing skills.

The existing research stresses that emotional intelligence includes skills that can be developed. In many studies conducted in the literature, it is emphasized that emotional intelligence skills are not stable rather continuously change and develop (Goleman, 2016; Mayer and Salovey, 1995, 1997; Mayer, Salovey, Caruso and Sitarenios, 2001; Özdemir, 2003; Somuncuoğlu-Özerbaş, 2004; Salovey and Mayer, 1990; Shapiro 2017; Weisinger, 1998; Yılmaz, 2002). It has been shown that the mental distress and negative feelings of people with high emotional intelligence are low yet their positive feelings are high (Kong, Zhao and You, 2012). BarOn (2006) contends that psychological well-being and emotional intelligence are directly associated with each other. Moreover, there is a significant correlation between emotional intelligence and happiness (Furnham and Petrides, 2003). Adolescents with higher intelligence have been found to be happier than others (Shapiro, 2017). Emotional intelligence is closely related to the concepts of empathy, self-regulation and social skills (Çıplak and Atıcı, 2016). EQ competencies used to measure emotional intelligence are not opposites of IQ competences. In real life, these two concepts are in an interaction and foster each other. Reuven BarOn describes the true intelligent person as the one not only having cognitive intelligence but also emotional intelligence (Acar, 2002: 55). Scientists say that emotional intelligence is not fate like IQ, it can be developed at any age. This increases the importance of emotional intelligence more (Baltaş, 2006: 7).

To date, many studies have been conducted on emotional intelligence and the concept of emotional intelligence has been handled in many different ways. The concept of emotional intelligence has been examined in the literature with mixed and talent models. Goleman's, Bar-On's and Cooper and Sawaf's models are mixed models while the model of intelligence proposed by Mayer and Salovey is a talent model. Mixed models examined emotional intelligence within the context of the individual's emotions, personality characteristics and social skills (Çakar and Arbak, 2004). Mixed models state that emotional intelligence is characterized by personality traits such as secure assertiveness, optimism, happiness, empathy and self-esteem, optimism and social competence, and is observed through consistent behaviours in different environments (Köksal, 2007). Furthermore, according to many researchers, emotional intelligence, which is a personality trait, has a weak relationship with classical intelligence (Newsome, Day and Catano, 2000; Derksen, Kramer and Katzko, 2002; Saklofske et al., 2003). Models that deal with emotional intelligence as talent say that it is connected with traditional intelligence and talk about abilities such as recognizing, expressing and labelling emotions (Çakar and Arbak, 2004; Köksal, 2007). According to many researchers, emotional intelligence as ability is associated with cognitive intelligence but not personality trait (Lopes, Salovey and Straus, 2003; MacCann, Matthews, Zeidner and Roberts, 2003; Mayer, Caruso et al., 1999; Roberts, Zeidner and Matthews, 2001).

Liau, Liau, Teoh and Liau (2003) investigated the relationship between the emotional intelligence of secondary school students and their behavioural problems. It was noted that as emotional intelligence level increased,

behavioural problems including stress, depression, somatic complaints, aggression and committing crime decreased. Barocelli and Ciucci (2014), again in their study with secondary school students, revealed that the emotional management and emotion use dimensions of emotional intelligence were negatively correlated with bullying and cyber bullying and that bullying and cyber bullying students' scores taken from the dimensions of recognizing their own feelings and understanding others' feelings were low. Brockert and Braun (2000) stated that by strengthening individuals' emotional intelligence, their family relations can be improved and the quality of their social life can be increased. Mayer et al. (2001) stated that individuals with high levels of emotional intelligence are able to manage their emotions more successfully, are more successful in stress management and resolution of emotional problems, and in connection with this, show more positive and constructive responses in social and family relationships. On the other hand, individuals with low level of emotional intelligence develop negative relationships by showing more aggressive behaviours and fail more in social relationships. A person with a high level of emotional intelligence has a sophisticated emotion management, emotional awareness, can empathize, establish healthy relationships and use their emotions effectively (Coşkun, 2015).

In recent years, the number of studies on the development and importance of emotional intelligence has increased rapidly in our country. When the studies conducted with secondary school students are reviewed, it is seen that emotional intelligence has been researched in relation to childhood depression (Adiyaman, 2010), psychological robustness (Ak, 2016), academic achievement (Atalay, 2014), parental attitudes (Topuksal, 2011) and intelligence and academic achievement (Dağlı, 2006). When the literature was reviewed, it was found that emotional intelligence is of great importance for individuals; thus, in the current study it was attempted to determine which factors could affect secondary school students' emotional intelligence.

### **Purpose of the Study:**

In the current study, it is aimed to investigate the level of secondary school students' emotional intelligence in terms of different variables (gender, grade level, parents' education level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or the environment playing the most important role in the growth of the individual, experiencing difficulty or not in making friends). To this end, answers to the following questions were sought.

#### **1.1. Sub-problems:**

- 1- What is the level of secondary school students' emotional intelligence?
- 2- Do the secondary school students' emotional intelligence vary significantly depending on gender, grade level, the frequency of reading book, and the length of the time spent on the phone or computer?
- 3- Do the secondary school students' emotional intelligence vary significantly depending on their parents' education level, the extent to which their parents care about their feelings, person(s) or environment playing the most important role in their growth and experiencing difficulty or not in making friends?

## **2. Method**

Here, information is presented about the research model, the study group, the data collection process and the statistical analysis of the collected data.

### **2.1. Research Model**

In the current study, the general survey model was used to provide a general description of the case (Karasar, 2009, p.77). The survey model aims to describe the subject under investigation in its own conditions as it was or is in the past or at present. The general survey model refers to way of conducting research on the whole or a part of the universe to elicit data about the whole universe consisted of numerous elements (Karasar, 2009, 77).

### **2.2. Study Group**

The study group of the current research is comprised of a total of 920 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grade students (483 females, 437 males) attending state schools in a city located in the west of Turkey in the spring term of the 2018-2019 school year. All the secondary schools involved in the current study were selected on the basis of convenience to the researchers. The participating students' ages ranged from 11 to 14. The students

participated in the current study on a volunteer basis. A total of 1121 students were reached but the number of the forms returned by the students is 920.

### 2.3. Data Collection Tools

In order to collect the personal information of the participants, a "Personal Information Form" was used and "The BarOn Emotional Intelligence Scale Child and Adolescent Form" was used to measure the level of the participants' emotional intelligence".

#### 2.3.1. Personal Information Form

In order to determine the personal characteristics of the participating students, a personal information form was used. In the form, questions were asked to elicit data about the students' gender, grade level, parents' education level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or the environment playing the most important role in the growth of the individual, experiencing difficulty or not in making friends.

#### 2.3.2. BarOn Emotional Intelligence Scale Child and Adolescent Form (EQ-i: YV)

The BarOn Emotional Intelligence Scale Child and Adolescent Form (EQ-i:YV) was developed by BarOn and Parker (2000). The scale is administered to children and adolescents in the age group 7-18. The scale consisted of 60 items that are responded on a four-point Likert scale with the response options, (1) seldom true of me, (2) sometimes true of me, (3) often true of me and (4) very often true of me. There are some reverse scored items in the scale. The items 6, 15, 21, 26, 28, 35, 37, 46, 49, 53, 54 and 58 are reverse scored items. The scale has six sub-dimensions. These sub-dimensions are intrapersonal skills, interpersonal skills, adaptability, stress management, general mood and positive impression. While the scale yields a separate score for each sub-dimension, it also produces a total emotional intelligence score. A high total emotional intelligence score indicates high emotional intelligence. The scale was adapted to Turkish by Köksal (2007). The reliability and validity studies of the scale were performed on a total of 1039 elementary school students and its Cronbach Alpha reliability coefficient was calculated to be .91. For the sub-dimensions of the scale, the Cronbach Alpha reliability coefficients were found to be as follows: .80 for the interpersonal skills sub-scale, .62 for the intrapersonal skills sub-scale, .68 for the stress management sub-scale, .85 for the adaptability sub-scale, .85 for the general mood sub-scale and .63 for the positive impression sub-scale. For the content validity of "EQ-i:YV", the original items of the scale and their Turkish translations were subjected to review of 10 experts and necessary changes were made on the items on the basis of the feedbacks from the experts. As a result of the item total, residual item and test-retest analyses conducted on the basis of the correlation of each item with scale scores, each of the scale items was found to be reliable at least in one of the three analyses. The characteristics of the individuals taking high scores from the sub-dimensions and the whole EQ can be described as follows:

- Intrapersonal: These individuals can understand their own feelings, and also have the ability to express their own feelings and needs.
- Interpersonal: These individuals are successful in maintaining interpersonal relationships. They are good listeners and good at understanding and appreciating others' emotions.
- Adaptability: These individuals are flexible, realistic and good at dealing with changes. They are successful in positive ways of coping with the problems of the daily life.
- Stress Management: These individuals are quiet in general and can perform better under stress. They are rarely impulsive. They do not respond with an emotional outburst to a stressful situation.
- General Mood: These individuals are optimistic. They view the positive sides of events and they are happy to be with them.
- Positive Impression: The individuals taking a high score from this sub-dimension want to give a positive impression more than required.
- Total EQ: These individuals are generally good at dealing with daily needs and happy.

### 2.4. Statistical Analysis of the Data

In the analysis of the data collected in the current study, SPSS 22.0 program package was used. While analysing the data, the descriptive statistical methods (frequency, percentage, mean, standard deviation) were used and in addition, Kolmogorov-Smirnov test was used to check the normality of the distribution.

After the descriptive statistics related to the scores were obtained, Levene test was used to check the variance homogeneity of the groups to be compared and in addition to this, in order to check the assumption of the

equality of covariance, Box's M statistics in MANOVA test was used. After it was decided that the variances and covariances of the groups are equal (homogenous), MANOVA was run to check whether the dependent variables of emotional intelligence and its sub-dimensions vary significantly depending on the independent variables of gender, grade level, parents' education level, the extent to which parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, the person(s) or environment playing the most important role in their growth and experiencing difficulty or not in making friends. The results were evaluated in the 95% confidence interval and at 0.05% significance level.

### 3. Findings

In this section, findings obtained in the current study are presented. On the basis of these findings, some explanations and interpretations are made and findings are presented in order specified by the research questions.

#### 3.1. Findings related to the Students' Level of Emotional Intelligence

In the current study, in light of the responses given by the students to the items of the Emotional Intelligence Scale, their levels of emotional intelligence for the whole scale and its individual sub-dimensions are elicited and presented in Table 1.

**Table 1.** Students' Level of Emotional Intelligence

	N	Minimum	Maximum	Mean	Standard Deviation
<i>General Mood</i>	920	1,07	4,07	3,12	,57
<i>Stress management</i>	920	1,75	4,75	3,38	,58
<i>Intrapersonal</i>	920	1,33	4,33	2,80	,69
<i>Adaptability</i>	920	1,00	4,00	2,79	,67
<i>Interpersonal</i>	920	1,08	4,83	3,14	,54
<i>Positive impression</i>	920	1,00	4,83	2,35	,55
Total EQ	920	1,58	3,57	2,62	,35

As can be seen in Table 1, while the maximum score taken from the scale by the secondary school students is 4.83, the minimum score is 1.00. The mean EQ score is 2.62. Moreover, the students got the highest mean score from the stress management sub-dimension while the lowest mean score from the positive impression sub-dimension.

#### 3.2. Investigation of the Students' Level of Emotional Intelligence in relation to Different Variables

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on gender are given in Table 2.

**Table 2.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Gender

Emotional Intelligence	Gender	N	M	SD	MS	df	SS	F	p
Positive Impression	Female	483	2,31	,53	,876	1	,876	2,903	,089
	Male	437	2,38	,56					
General Mood	Female	483	3,11	,59	,001	1	,001	,002	,963
	Male	437	3,12	,55					
Adaptability	Female	483	2,75	,68	1,362	1	1,362	3,021	,083

	Male	437	2,83	,65					
Stress Management	Female	483	3,37	,59	,036	1	,036	,105	,746
	Male	437	3,39	,57					
Intrapersonal	Female	483	2,78	,71	,166	1	,166	,344	,558
	Male	437	2,81	,67					
Interpersonal	Female	483	3,25	,51	14,314	1	14,314	49,902	,000
	Male	437	3,00	,55					
Total EQ	Female	483	2,63	,35	,121	1	,121	1,001	,317
	Male	437	2,60	,34					

Table 2, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the interpersonal sub-dimension do not vary significantly depending on gender ( $p>.05$ ).

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on grade level are shown in Table 3.

**Table 3.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Grade Level

Emotional Intelligence	Grade level	N	M	D	MS	f	SS	F	p	Difference
Positive Impression	5 <sup>th</sup> grade	211	2,4052	55	2,35	3	7,07	7,97	,000	5 <sup>th</sup> -8 <sup>th</sup>
	6 <sup>th</sup> grade	161	2,4534	51						6 <sup>th</sup> -8 <sup>th</sup>
	7 <sup>th</sup> grade	297	2,3642	58						7 <sup>th</sup> -8 <sup>th</sup>
	8 <sup>th</sup> grade	251	2,2138	49						
General Mood	5 <sup>th</sup> grade	211	3,2383	59	2,95	3	8,86	9,15	,000	5 <sup>th</sup> -8 <sup>th</sup>
	6 <sup>th</sup> grade	161	3,1965	53						6 <sup>th</sup> -8 <sup>th</sup>
	7 <sup>th</sup> grade	297	3,1138	55						7 <sup>th</sup> -8 <sup>th</sup>
	8 <sup>th</sup> grade	251	2,9795	57						
Adaptability	5 <sup>th</sup> grade	211	2,9289	68	2,11	3	6,33	4,73	,003	5 <sup>th</sup> -7 <sup>th</sup>
	6 <sup>th</sup> grade	161	2,8273	65						5 <sup>th</sup> -8 <sup>th</sup>
	7 <sup>th</sup> grade	297	2,7391	66						
	8 <sup>th</sup> grade	251	2,7187	66						
Stress Management	5 <sup>th</sup> grade	211	3,5134	7	3,04	3	9,14	9,15	,000	5 <sup>th</sup> -7 <sup>th</sup>
	6 <sup>th</sup> grade	161	3,4757	51						5 <sup>th</sup> -8 <sup>th</sup>
	7 <sup>th</sup> grade	297	3,3476	60						6 <sup>th</sup> -8 <sup>th</sup>
	8 <sup>th</sup> grade	251	3,2600	57						

Intrapersonal	5 <sup>th</sup> grade	211	2,8294	73	,55	3	1,66	1,14	,330	-
	6 <sup>th</sup> grade	161	2,8654	61						
	7 <sup>th</sup> grade	297	2,7486	71						
	8 <sup>th</sup> grade	251	2,7975	67						
Interpersonal	5 <sup>th</sup> grade	211	3,1509	59	,35	3	1,05	1,16	,323	-
	6 <sup>th</sup> grade	161	3,0875	55						
	7 <sup>th</sup> grade	297	3,1801	51						
	8 <sup>th</sup> grade	251	3,1195	54						
Total EQ	5 <sup>th</sup> grade	211	2,6957	36	,99	3	2,98	8,45	,000	5 <sup>th</sup> -7 <sup>th</sup>
	6 <sup>th</sup> grade	161	2,6623	33						5 <sup>th</sup> -8 <sup>th</sup>
	7 <sup>th</sup> grade	297	2,6101	34						6 <sup>th</sup> -8 <sup>th</sup>
	8 <sup>th</sup> grade	251	2,5438	32						

As can be seen in Table 3, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the intrapersonal and interpersonal sub-dimensions vary significantly depending on grade level ( $p < .05$ ). The total emotional intelligence mean scores seem to be decreasing from the 5<sup>th</sup> grade towards the 8<sup>th</sup> grade. That is, while the students' emotional intelligence is higher when they start the secondary school, it decreases towards the end of it.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the frequency of reading book are shown in Table 4.

**Table 4.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Frequency of Reading Book

Emotional Intelligence	Frequency of reading book	N	M	D	MS	f	SS	F	P	Difference
Positive Impression	Never (1)	44	2,3258	66	,081	2	,162	,268	,765	-
	Sometime (2)	561	2,3399	53						
	Always (3)	315	2,3661	56						
General Mood	Never (1)	44	2,9221	54	1,12	2	2,24	3,398	,034	1-3
	Sometime (2)	561	3,1137	56						
	Always (3)	315	3,1594	59						
Adaptability	Never (1)	44	2,7223	72	4,21	2	8,42	9,487	,000	2-3
	Sometime (2)	561	2,7214	66						
	Always (3)	315	2,9248	66						
	Never (1)	44	3,1250	58	2,59	2	5,19	7,710	,000	1-2
	Sometime (2)	561	3,3605	56						1-3

Stress Management	Always (3)	315	3,4624	60						
	Never (1)	44	2,6439	70	,576	2	1,51	1,194	,304	-
Intrapersonal	Sometime (2)	561	2,8116	66						
	Always (3)	315	2,8009	73						
	Never (1)	44	3,0322	60	4,33	2	8,66	14,768	,000	1-3
Interpersonal	Sometime (2)	561	3,0740	55						2-3
	Always (3)	315	3,2746	51						
	Never (1)	44	2,4947	30	1,26	2	2,53	10,721	,000	1-3
Total EQ	Sometimes (2)	561	2,5932	34						2-3
	Always (3)	315	2,6808	35						

As can be seen in Table 4, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the interpersonal and positive impression sub-dimensions vary significantly depending on the frequency of reading book ( $p < .05$ ). The total emotional intelligence score of the students always reading book is higher than those of the students never or sometimes reading book.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the length of time spent on the phone or computer are presented in Table 5.

**Table 5.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Length of Time Spent on the Phone or Computer

Emotional Intelligence	Time Spent on the Phone or Computer	N	M	D	MS	f	SS	F	p	Difference
Positive Impression	Never (1)	67	2,41	57	,567	6	3,40	1,88	,080	-
	0-half (2)	177	2,42	49						
	Half-one (3)	209	2,37	53						
	One-one and half (4)	200	2,32	56						
	One and half-two (5)	76	2,32	53						
	Two-two and half (6)	64	2,19	54						
	Two and half and more (7)	127	2,29	60						
General Mood	Never (1)	67	3,12	60	1,271	6	7,62	3,91	,001	2-7
	0-half (2)	177	3,23	52						3-7



	Half-one (3)	209	3,16	56						
	One-one and half (4)	200	3,08	56						
		76	3,14	,58						
	One and half-two (5)									
		64	3,08	53						
	Two-two and half (6)									
		127	2,93	62						
	Two and half and more (7)									
Adaptability	Never (1)	67	2,91	64	1	6	1	4	,	2-4
	0-half (2)	177	2,94	64	,841		1,04	,15	000	2-7
	Half-one (3)	209	2,79	68						
	One-one and half (4)	200	2,69	65						
	One and half-two (5)	76	2,87	62						
	Two-two and half (6)	64	2,76	65						
	Two and half and more (7)	127	2,62	72						
Stress Management	Never (1)	67	3,43	60	1,522	6	9,13	4,55	,000	2-7
	0-half (2)	177	3,47	59						3-7
	Half-one (3)	209	3,47	54						
	One-one and half (4)	200	3,37	55						
	One and half-two (5)	76	3,25	63						
	Two-two and half (6)	64	3,29	60						
	Two and half and more (7)	127	3,21	8						
Intrapersonal	Never (1)	67	2,83	62	,927	6	5,56	1,93	,073	-
	0-half (2)	177	2,88	74						
	Half-one (3)	209	2,84	62						
	One-one and half (4)	200	2,77	70						

	One and half- two 5)	76	2,83	73						
	Two-two and half (6)	64	2,76	62						
	Two and half and more (7)	127	2,63	74						
Interpersonal	Never (1)	67	3,13	52	,571	6	3,42	1,90	,078	-
	0-half (2)	177	3,22	51						
	Half-one (3)	209	3,13	59						
	One-one and half (4)	200	3,10	55						
	One and half- two 5)	76	3,20	49						
	Two-two and half (6)	64	3,16	45						
	Two and half and more (7)	127	3,03	58						
Total EQ	Never (1)	67	2,65	34	,692	6	4,15	5,93	,000	1-7
	0-half (2)	177	2,71	32						2-4
	Half-one (3)	209	2,65	34						2-7
	One-one and half (4)	200	2,58	34						3-7
	One and half- two 5)	76	2,62	32						
	Two-two and half (6)	64	2,58	32						
	Two and half and more (7)	127	2,49	36						

As can be seen in Table 5, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the positive impression, interpersonal and intrapersonal sub-dimensions vary significantly depending on the length of time spent on the phone or computer ( $p < .05$ ). When the total mean emotional intelligence score is examined, it is seen that the mean score of the students spending more than 1 hour on the phone or computer is lower than that of the students spending less than 1 hour on the phone or computer.

### 3.3. Investigation of the Students' Level of Emotional Intelligence in relation to Different Variables

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on mother's education level are given in Table 6.

**Table 6.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Mother's Education Level

Emotional Intelligence	Mother's education level	N	M	SD	MS	df	SS	F	p	Difference
Positive Impression	Elementary (1)	95	2,34	,58	,415	3	1,37	1,04	,250	-
	Secondary (2)	30	2,37	,53						
	High school (3)	41	2,27	,55						
	University (4)	54	2,34	,49						
General Mood	Elementary (1)	95	3,10	,59	,493	3	1,49	1,23	,214	-
	Secondary (2)	30	3,12	,56						
	High school (3)	41	3,17	,55						
	University (4)	54	3,05	,57						
Adaptability	Elementary (1)	95	2,72	,66	3,03	3	6,83	5,16	,000	1-4 2-4
	Secondary (2)	30	2,72	,66						3-4
	High school (3)	41	2,80	,70						
	University (4)	54	3,00	,61						
Stress Management	Elementary (1)	95	3,32	,58	,506	3	1,48	1,15	,218	-
	Secondary (2)	30	3,38	,58						
	High school (3)	41	3,41	,57						
	University (4)	54	3,43	,60						



	Secondary (2)	239	2,38	,55						
	High school (3)	268	2,37	,56						
	University (4)	204	2,31	,51						
General Mood	Elementary (1)	209	3,10	,55	,058	3	,175	,176	,913	-
	Secondary (2)	239	3,12	,58						
	High school (3)	268	3,11	,59						
	University (4)	204	3,14	,57						
Adaptability	Elementary (1)	209	2,61	,63	4,57	3	13,725	10,43	,000	1-3 1-4
	Secondary (2)	239	2,74	,67						2-4
	High school (3)	268	2,85	,69						
	University (4)	204	2,94	,63						
Stress Management	Elementary (1)	209	3,35	,59	,546	3	1,639	1,600	,188	-
	Secondary (2)	239	3,34	,56						
	High school (3)	268	3,38	,60						
	University (4)	204	3,45	,57						
Intrapersonal	Elementary (1)	209	2,78	,67	,112	3	,336	,232	,874	-
	Secondary (2)	239	2,77	,67						
	High school (3)	268	2,82	,68						

	University (4)	204	2,81	,75						
Interpersonal	Elementary (1)	209	3,11	,57	,520	3	1,561	1,726	,160	-
	Secondary (2)	239	3,08	,57						
	High school (3)	268	3,18	,52						
	University (4)	204	3,17	,52						
Total EQ	Elementary (1)	209	2,58	,33	,323	3	,970	2,699	,045	1-4 2-4
	Secondary (2)	239	2,59	,33						
	High school (3)	268	2,64	,35						
	University (4)	204	2,66	,35						

As can be seen in Table 7, the secondary school students' emotional intelligence scores taken from the whole scale and the adaptability sub-dimension vary significantly depending on father's education level ( $p < .05$ ). When the total mean emotional intelligence score is examined, it is seen that the mean emotional score of the students whose fathers are university graduates is higher than those of the students whose fathers are elementary, secondary and high school graduates.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the extent to which their mothers care about their feelings are given in Table 8.

**Table 8.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Extent to Which their Mothers Care about their Feelings

Emotional Intelligence	The extent to which mother cares about their feelings	N	M	D	MS	f	SS	F	p	Difference
Positive Impression	Doesn't care (1)	25	2,26	79	,867	2	1,73	2,88	,057	-
	Partially cares (2)	108	2,24	54						
	Cares (3)	787	2,36	53						
	Doesn't care (1)	25	2,68	58	8,29	2	16,59	26,48	,000	1-3

General Mood	Partially cares (2)	108	2,82	54							2-3	
		787	3,17	56								
	Cares (3)											
Adaptability	Doesn't care (1)	25	2,64	77	3,16	2	6,33	7,10	,001	2-3		
	Partially cares (2)	108	2,58	61								
		787	2,82	67								
	Cares (3)											
	Doesn't care (1)	25	3,08	70	4,65	2	9,30	13,99	,000	1-3		
	Partially cares (2)	108	3,15	51								2-3
Stress Management		787	3,42	58								
	Cares (3)											
	Doesn't care (1)	25	2,62	67	5,92	2	5,65	5,92	,003	2-3		
Intrapersonal	Partially care (2)	108	2,61	70								
		787	2,83	68								
	Care (3)											
	Doesn't care (1)	25	3,01	61	12,57	2	7,41	12,57	,000	2-3		
	Partially cares (2)	108	2,91	53								
		787	3,18	54								
Interpersonal	Cares (3)											
	Doesn't care (1)	25	2,43	32	26,46	2	6,04	26,46	,000	1-3		
	Partially cares (2)	108	2,42	29								2-3
Total EQ		787	2,65	34								
	Cares (3)											

As can be seen in Table 8, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the positive impression sub-dimension vary significantly depending on the extent to which their mothers care about their feelings ( $p < .05$ ). When the total mean emotional intelligence score is examined, it is seen that the mean emotional intelligence score of the students whose feelings are cared about by their mothers is higher than those of the students whose feelings are partially cared or not cared about by their mothers.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the extent to which their fathers care about their feelings are given in Table 9.

**Table 9.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Extent to Which their Fathers Care about their Feelings

Emotional Intelligence	The extent to which father cares about their feelings	N	M	SD	MS	df	SS	F	p	Difference
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Positive Impression	Doesn't care (1)	46	2,10	,50	3,09	2	6,19	10,45	,000	1-3
	Partially cares (2)	178	2,24	,52						2-3
	Cares (3)	696	2,39	,55						
General Mood	Doesn't care (1)	46	2,60	,62	12,7	2	25,43	41,89	,000	1-3
	Partially cares (2)	178	2,90	,54						2-3
	Cares (3)	696	3,20	,54						
Adaptability	Doesn't care (1)	46	2,49	,69	8,78	2	17,57	20,25	,000	1-3
	Partially cares (2)	178	2,56	,59						2-3
	Cares (3)	696	2,87	,67						
Stress Management	Doesn't care (1)	46	3,15	,59	4,80	2	9,60	14,54	,000	1-3
	Partially cares (2)	178	3,21	,53						2-3
	Cares (3)	696	3,44	,58						
Intrapersonal	Doesn't care (1)	46	2,54	,67	5,34	2	10,69	11,33	,000	1-3
	Partially cares (2)	178	2,63	,64						2-3
	Cares (3)	696	2,86	,69						
Interpersonal	Doesn't care (1)	46	2,92	,61	3,85	2	7,71	13,10	,000	1-3
	Partially cares (2)	178	2,99	,52						2-3
	Cares (3)	696	3,19	,54						
Total EQ	Doesn't care (1)	46	2,35	,29	4,83	2	9,67	43,92	,000	1-3
	Partially cares (2)	178	2,46	,29						2-3
	Cares (3)	696	2,67	,34						

As can be seen in Table 9, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions vary significantly depending on the extent to which their fathers care about their feelings ( $p < .05$ ). When the total mean emotional intelligence score is examined, it is seen that the mean emotional intelligence score of the students whose feelings are cared about by their fathers is higher than those of the students whose feelings are partially cared or not cared about by their mothers.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the person(s) and the environment playing the most important role in their growth are given in Table 10.

**Table 10.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Person(s) and the Environment Playing the Most Important Role in their Growth

Emotional Intelligence	Person(s)	N	M	SD	MS	df	SS	F	p	Difference
	Caretaker (1)	9	2,10	,47	,632	6	3,792	2,10	,050	-



Positive Impression	Grandfather-mother (2)	06	2,33	,56						
	Mother (3)	4	2,36	53						
	Father (4)	7	2,51	46						
	Sibling (5)	2	2,46	82						
	Relatives (6)	9	2,18	44						
	Crèche (7)	3	2,41	76						
		Caretaker (1)	9	2,81	65	1,414	6	8,485	4,37	,000
General Mood	Grandfather-mother (2)	6	3,13	56						1-3
	Mother (3)	4	3,15	56						2-6
	Father (4)	7	2,97	36						3-6
	Sibling (5)	2	2,97	62						
	Relatives (6)	9	2,68	54						
	Crèche (7)	3	3,10	58						
		Caretaker (1)	9	2,88	72	,429	6	2,573	,949	,449
Adaptability	Grandfather-mother (2)	6	2,78	67						
	Mother (3)	4	2,78	65						
	Father (4)	7	2,82	62						
	Sibling (5)	2	2,70	83						
	Relatives (6)	9	2,74	74						
	Crèche (7)	3	3,17	78						
		Caretaker (1)	9	3,25	55	1,412	6	8,473	4,215	,000
Stress Management	Grandfather-mother (2)	6	3,32	59						3-6
	Mother (3)	4	3,43	57						
	Father (4)	7	3,32	43						
	Sibling (5)	2	3,38	53						
	Relatives (6)	9	2,90	71						
	Crèche (7)	3	3,11	49						
		Caretaker (1)	9	2,67	76	,742	6	4,452	1,543	,161
Intrapersonal	Grandfather-mother (2)	6	2,72	68						
	Mother (3)	4	2,84	68						
	Father (4)	7	2,76	58						
	Sibling (5)	2	2,92	65						

	Relatives (6)	9	2,58	82						
	Crèche (7)	3	2,62	90						
Interpersonal	Caretaker (1)	9	2,99	62	,456	6	2,735	1,514	,170	-
	Grandfather-mother (2)	6	3,14	54						
	Mother (3)	4	3,15	53						
	Father (4)	7	3,03	54						
	Sibling (5)	2	2,93	59						
	Relatives (6)	9	3,05	54						
	Crèche (7)	3	3,32	64						
Total EQ	Caretaker (1)	9	2,49	37	,338	6	2,027	2,838	,010	2-6
	Grandfather-mother (2)	6	2,60	35						
	Mother (3)	4	2,64	33						
	Father (4)	7	2,57	21						
	Sibling (5)	2	2,57	43						
	Relatives (6)	9	2,39	32						
	Crèche (7)	3	2,64	41						

As can be seen in Table 10, the secondary school students' emotional intelligence scores taken from the whole scale and the general mood and stress management sub-dimensions vary significantly depending on the person(s) and the environment playing the most important role in their growth ( $p < .05$ ). When the total mean emotional intelligence score is examined, it is seen that there is a significant difference between the mean emotional intelligence scores of the children spending the most time with their mothers and the children spending with their relatives. The emotional intelligence mean score of the children spending the most time with their mothers when they were younger is higher.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on experiencing difficulty or not in making friends are given in Table 11.

**Table 11.** Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Experiencing Difficulty or not in Making Friends

Emotional Intelligence	Experiencing difficulty in making friends	N	M	SD	MS	df	SS	F	p	Difference
Positive Impression	No (1)	649	2,43	53	7,56	2	15,12	26,38	,000	1-2
	Partially (2)	210	2,13	51						1-3
	Yes (3)	61	2,21	59						
	No (1)	649	3,23	52	15,20	2	30,44	51,05	,000	1-2

General Mood	Partially (2)	210	2,88	55						1-3
	Yes (3)	61	2,71	73						
	No (1)	649	2,88	66	9,22	2	18,45	21,32	,000	1-2
Adaptability	Partially (2)	210	2,56	63						1-3
	Yes (3)	61	2,59	71						
Stress Management	No (1)	649	3,44	58	4,11	2	8,22	12,31	,000	1-2
	Partially (2)	210	3,26	53						1-3
	Yes (3)	61	3,16	59						
Intrapersonal	No (1)	649	2,90	67	12,17	2	24,35	26,65	,000	1-2
	Partially (2)	210	2,56	64						1-3
	Yes (3)	61	2,50	79						
Interpersonal	No (1)	649	3,21	52	5,59	2	11,18	19,25	,000	1-2
	Partially (2)	210	2,99	53						1-3
	Yes (3)	61	2,90	68						
Total EQ	No (1)	649	2,69	33	6,37	2	12,750	59,68	,000	1-2
	Partially (2)	210	2,45	29						1-3
	Yes (3)	61	2,39	35						

As can be seen in Table 11, the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions vary significantly depending on experiencing difficulty or not in making friends ( $p < .05$ ). When the total mean emotional intelligence score is examined, it is seen that the mean score of the students not experiencing difficulty in making friends is significantly higher than those of the students partially experiencing or experiencing difficulty in making friends.

#### 4. Discussion-Results

Many studies conducted in recent years have shown that the definition of intelligence should be expanded and that besides IQ, which is considered to be the classically accepted intellectual intelligence, EQ should be included in this definition (Çakar & Arbak, 2004; Goleman, 1995). Emotional intelligence includes the competences of being aware of emotions, dealing with emotions, self-motivating, empathizing and managing relationships. Disruptions in the development of emotional intelligence play an important role in the emergence of both psychological problems and interpersonal relations (Tuğrul, 1999). In this connection, the current study aimed to investigate whether the secondary school students' level of emotional intelligence (11-14 years old) varies significantly depending on some variables (gender, grade level, parents' education level, the extent to which parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, the person(s) and the environment playing the most important role in their growth).

According to the findings of the current study, the total mean score taken from the BarOn Emotional Intelligence Scale Children and Adolescents Form is 2.62. The students were found to have the highest mean

score for the stress management sub-dimension, while they were found to have the lowest mean score for the positive impression sub-dimension. Individuals who are good at stress management are generally calm and can perform better under stress. They are rarely impulsive. They do not respond with an emotional outburst to a stressful situation. Individuals taking a low score from the positive impression sub-dimension do not want to leave a positive impression more than required. Individuals taking a high score from the EQ test are generally good at dealing with daily problems and happy (Naseem, 2018; Abdollahi et al., 2015; Mahasneh, 2013; Zacher et al., 2013).

The findings of the current study have revealed that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the interpersonal sub-dimension do not vary significantly depending on gender ( $p>.05$ ). When the relevant literature is reviewed, it is seen that in many studies, a significant difference was found in the emotional intelligence scores in favour of female students (Ulutaş, 2005; Austin, Evans, Magnus, O'Hanlon, 2007; Bender, 2006; Tekin, 2014; Birks, McKendree, Watt, 2009; Akdeniz, 2014; Yurdakavuştu, 2012; Kızıl, 2012; Ümit, 2010; Köse, 2009; Somuncuğlu Özerbaş, 2004; Şen, 2017; İnci, 2014; Seyis, 2011). In the existing research, a significant correlation has been reported between intelligence and gender in general; however, in the current study no significant difference based on gender was found in the total mean emotional intelligence scores. In this regard, the current study does not seem to concur with the studies conducted by Aydın (2018) and İşeri (2016). The findings of the current study were obtained from secondary school students. However, this study should also be conducted on male and female students from different age groups. A better grasp of the relationship between emotional intelligence and gender can be achieved through further research to be conducted on the issue.

It was also found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the intrapersonal and interpersonal sub-dimensions vary significantly depending on grade level. When the total mean emotional intelligence score was examined, the highest mean score was found for the 5<sup>th</sup> graders while it decreased with the increasing grade level. That is, while the students' emotional intelligence is high at the beginning of the secondary school, it decreases towards the end of the secondary school. In the study conducted by Aydın (2018), it was also found that the scores taken by the students from the emotional intelligence scale vary significantly by grade level. The emotional intelligence mean scores of the 5<sup>th</sup> and 6<sup>th</sup> grade students were found to be statistically higher than those of the 10<sup>th</sup> and 11<sup>th</sup> graders and that with increasing grade level, the emotional intelligence score dropped. On the other hand, Bender (2006) found that the students' emotional intelligence scores do not vary significantly depending on grade level. İşeri (2016) investigated the emotional intelligence levels of students from four different grades of high school and found that the students' level of emotional intelligence did not vary significantly by grade level. Köse (2009) reported that with increasing grade level, the emotional intelligence of students decreased. That is, a significant difference was found between lower grades and upper grades (2<sup>nd</sup> grade and 7<sup>th</sup> grade). Aydın (2018) and Köse (2009) also concluded that with increasing grade level, the students' emotional intelligence decreased, which supports the finding of the current study. However, Bender (2006) and İşeri (2016) found that there is no significant correlation between emotional intelligence and grade level. The grade levels involved in studies vary while in one study, secondary school and high school grades were studied together, in another study elementary and secondary school students were studied together. The differences seen in the findings of different studies may have resulted from the inclusion of different grade levels in different studies. The reason for the decrease in the emotional intelligence of the students in the study group with increasing grade level might be their transition to a different period as a result of their gradual progression from the childhood period to the adolescence period.

It was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the interpersonal and positive impression sub-dimensions vary significantly depending on the frequency of reading book ( $p<.05$ ). When the total mean emotional intelligence score was examined, it was found that the mean score of the students always reading book is higher than those of the students never or sometimes reading book. The secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the positive impression, intrapersonal and interpersonal sub-dimensions were found to be varying significantly depending on the length of the time spent on the phone or computer ( $p<.05$ ). When the total mean emotional intelligence score was examined, it was found that the mean score of the students spending more than 1 hour on the phone or computer is lower

than that of the students spending less than 1 hour on the phone or computer. In his study conducted on the secondary school students, Topşar (2015) investigated whether there is a significant correlation between emotional intelligence and addiction to computer games and found a significant and positive correlation. Significant and positive correlations were found between the four sub-dimensions of emotional intelligence and four different sub-dimensions of addiction to computer games. Emotional intelligence was found to be not related to neutral or violent computer games but to the computer games with social content. Bushman (2015) stated that violent computer games lead to an increase in aggressive behaviours and a decrease in empathy and altruistic behaviours. On the other hand, computer games including socially beneficial behaviours have been reported to positively affect empathy; accordingly, emotional intelligence. Anderson and Bushman (2001) argue that computer games cause aggression in children and adolescents. In the formation of tendency towards aggression in children and adolescents, the type of the game played and the frequency and length of playing are influential. In a study, it was determined that the academic achievement and school performance of the university students using the internet for more than 11 hours and 18 minutes are lower than those of the students using the internet for 3 hours and 84 minutes and less. Holman et al. (2005) found that social development of the children frequently using the internet and spending a great amount of time on computer games is retarded to a large extent, their self-confidence lowers and their social anxiety levels and aggressive behaviours are high. According to Aksaçlıoğlu and Yılmaz (2007), in recent years, children's watching TV and using the computer negatively affects their reading habits. It is seen that with increasing amount of television watching and computer using, the habit of reading book deteriorates. The negative effect of technology on book reading has been reported. In a study conducted by Odabaş, Odabaş and Polat (2008) on university students, it was found that while nearly 51% of the students spend at least an hour listening to music, watching television and using computer every day, nearly 37% of them spend at most an hour reading book. Moreover, for the habit of reading to be deeply-rooted in later ages, children should be encouraged to start reading at early ages by their parents. The effect of family on the development of reading habit has been proved in many studies. However, when the literature is reviewed, it is seen that there is a limited amount of research focusing on the measurement of reading habit in children and the effect of the family's attitude towards reading on the development of this habit. One of the studies exploring this effect was conducted by Ünal, Topçuoğlu and Yiğit (2014); they investigated the effect of the family on the development of children's reading culture and found that as the family is a model to children and shapes their future, it has a significant effect on the development of reading habit in children. In a study conducted by Duran and Sezgin (2012) to determine the elementary school fourth and fifth graders' reading habits and interests, they concluded that if the family does not serve as a good model to the child, the development of his/her reading habit can be hindered.

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the adaptability do not vary significantly depending on mother's education level ( $p > .05$ ). On the other hand, their emotional intelligence scores taken from the whole scale and the adaptability sub-dimension were found to be varying significantly depending on father's education level ( $p < .05$ ). When the total mean emotional intelligence was examined, it was seen that the mean score of the children whose fathers are university graduates is higher than those of the students whose fathers are elementary, secondary or high school graduates. While the secondary school students' emotional intelligence scores were found to be not varying significantly depending on mother's education level, they were found to be varying significantly depending on father's education level. When the relevant literature is reviewed, it is seen that Aydın (2018) reported that the scores taken from the emotional intelligence scale do not vary depending on mother and father's education level and that the mean scores of the children whose mothers and fathers hold a high school degree, bachelor's degree or graduate degree do not vary significantly. Bender (2006) also found that the scores taken from the emotional intelligence scale do not vary significantly depending on mother and father's education level. Göçet Tekin (2014) investigated the emotional intelligence scores of the university students in relation to their mothers and fathers' education level and found that the mean scores of the students whose parents are elementary school, secondary school, high school and university graduates do not vary significantly. Yurdakavuştu (2012) looked into the relationship between emotional intelligence and mother and father's education level and found that the mean emotional intelligence score of the students whose mothers and fathers are high school graduates is higher than those of the students whose mothers and fathers are illiterate, elementary, secondary school, university graduates or having a

master's degree. Ümit (2010) carried out a study on adolescents and found that the scores taken from the emotional intelligence scale do not vary depending on mother and father's education level. Harrod and Scheer (2005, cited in Topuksal, 2011) conducted a study with the participation of adolescents to investigate the relationship between the level of emotional intelligence and demographic features. In the study, they used the BarOn Emotional Intelligence Children and Adolescents Form and found a significant correlation between emotional intelligence and the education level of the family.

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the positive impression sub-dimension vary significantly depending on the extent to which their mothers care about their feelings ( $p < .05$ ). When the total mean intelligence score was examined, it was found that the mean emotional intelligence score of the children whose mothers care about their feelings is higher than those of the students whose mothers partially care or do not care about their feelings. Moreover, the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions were found to be varying significantly depending on the extent to which their fathers care about their feelings ( $p < .05$ ). When the total mean emotional intelligence score was examined, it was found that the mean emotional intelligence score of the children whose fathers care about their feelings is higher than those of the children whose fathers partially care or do not care about their feelings. Thus, it can be argued that the extent to which individuals' emotions are cared about by their parents affects their emotional intelligence. Emotional intelligence of the children who grew up in families where there were warm relationships based on love, trust and respect, and family members cared about each other's feelings was found to be higher (Uyar Kurt, 2016). Attention paid to their emotions can affect the development of children's emotional intelligence (Karayılmaz, 2008). Children with a high level of emotional intelligence can be more successful in their academic life and social relationships (Kuzucu, 2011; Ulutaş, 2005).

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and the general mood and stress management sub-dimensions vary significantly depending on the person(s) or the environment playing the most important role in their growth ( $p < .05$ ). The mean score of the students who were brought up by their mothers was found to be higher than those of the children brought up by caretakers or relatives. Thus, it is seen that the development of the emotional intelligence of the children who are raised by their mothers is better than those of the children raised by caretakers or relatives. Emotional intelligence of the children who grew up in families where there were warm relationships based on love, trust and respect, and family members cared about each other's feelings was found to be higher (Uyar Kurt, 2016). When the relevant literature is reviewed, it is seen that there is no study focusing on the relationship between the development of emotional intelligence and the person(s) playing the most important role in the growth of the individual.

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions vary significantly depending on their experiencing difficulty or not in making friends ( $p < .05$ ). That is, the mean emotional intelligence score of the students not experiencing difficulty in making friends is higher than those of the students partially experiencing or experiencing difficulty in making friends. According to Coşkun (2015), the individual with a high level of emotional intelligence has an advanced management of emotions, emotional awareness, can empathize and establish healthy relationships and use his/her emotions effectively. The reason behind the higher mean emotional score of the students not having difficulty in making friends than those of the students having difficulty or partially having difficulty in making friends might be because they have emotional awareness and the ability of establishing empathy.

## 5. Suggestions

In the current study the secondary school students' level of emotional intelligence was examined in relation to different variables and the current study has some limitations. The study is limited to the 920 students attending three secondary schools in the city of Denizli and participating in the current study on a volunteer basis. Moreover, a quantitative method was followed to achieve the objectives of the study. The relationships tested in the current study can be investigated by other studies using different research methods to increase the reliability of the results. In the current study, variables investigated included gender, grade level, parents' education level, the extent to which parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, the person(s) and the environment playing the most important role

in their growth and experiencing or not difficulty in making friends. In future research, the effect of other variables such as the type of the book read by adolescents, the type of the games they play on the phone or computer, branches of sports and music they are engaged in and friendship relationships on emotional intelligence can be explored.

Given the positive effect of the frequency of reading book on emotional intelligence, it can be suggested that parents should be a role model to their children by themselves reading book at home and should encourage their children to read book. In addition, it was also found that the mean emotional intelligence score of the children playing games on the phone or computer more than one hour is lower than that of the children playing games on the phone or computer less than one hour; thus, parents should be more careful about how long their children play games on the phone or computer. In the current study, a significant correlation was found between the children's experiencing difficulty or not in making friends and their emotional intelligence. In light of this finding, it can be suggested that the students who experience difficulty in making friends should be determined and then by creating suitable environments for them to study and do homework with other students, they should be encouraged to make friends. In the current study, it was found that when children's feelings are cared about by their parents, their emotional intelligence is fostered; thus, activities can be organized for parents to raise their awareness of the importance of caring about their children's feelings. It was also found that the children raised by their mothers have a higher level of emotional intelligence; therefore, when possible, mothers themselves should raise their children.

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