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Cüneyit Akar ¹, Mehmet Kara²
¹Usak University
²Diyarbakır Provincial Directorate of National Education, Turkey

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Critical Thinking Attitude and Some Other Variables in Predicting Students’ Democratic Attitudes

Cüneyit Akar ¹, Mehmet Kara ²
¹Usak University
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Abstract
This research was conducted to determine the effects of the attitudes towards critical thinking, gender, socioeconomic factors (education level of parents, income level, place of residence) as well as academic success, reading and television viewing habits in predicting the democratic attitudes of the fourth grade students. The research was carried out with the participation of 1066 students studying in the 4th grades of primary schools in the central districts of Diyarbakır in the 2017-2018 academic year. The study is descriptive and has a relational screening model. The "Democratic Attitude Scale" (DAS) developed by Erbil and Kocabaş (2017) was employed to determine the students' democratic attitudes and the "Critical Thinking Attitude Scale" (CTAS) developed by Akar-Vural (2005) was used to measure their critical thinking attitudes. A Personal Information Form was used to get information about the students. As a result of the research, democratic attitudes of the students were found "very good" and their attitudes towards critical thinking were "good". According to the results of the regression analysis, it was determined that all the independent variables of the study predicted the students' democratic attitudes at the level of 17%. It was found that critical thinking attitude scores (2.7%), socioeconomic factors (6.5%), and academic success, television viewing and reading habits (7.5%) significantly predicted the students' democratic attitudes. Considering the regression coefficients, it was seen that gender, maternal education level and reading habits did not contribute significantly to predicting democratic attitudes.

Keywords: Democratic attitude, Critical thinking attitude, socioeconomic factors, academic success, reading habits, television viewing time

Introduction
As a form of management, democracy is the system that relies on the legislative, executive, and judicial independence, has freedom of press and expression, and operates balance and control mechanisms. In terms of the relationship between individuals, democracy is a concept that includes a set of values and a way of life that regulates how individuals should behave each other (Doğan, 2017; Tezcan, 1994; Gözütok, 1995). In this sense, democracy is more than a form of government (Dewey, 1996). As for democratic attitude, it means that individuals have a positive world view of both dimensions of democracy. In order for democracy to be settled in society as a form of management and lifestyle, it is important to bring values such as justice, equality, freedom, respect to human beings, life and nature, tolerance, and responsibility to citizens.

The main functions of educational institutions include bringing democratic life and democratic values to society (Davis, 2010). The Turkish education system can be said to prioritize this issue. Indeed, the Ministry of National Education (MoNE) clearly put the emphasis on democracy in the Basic Objectives of the Law of National Education No. 1739 as well as in the Basic Principles of National Education (MoNE, 1973).

Citizens' being equipped with democratic attitudes and behaviors starts with basic education. All kinds of knowledge and experience about democracy that could be provided to the children through their schools and environments will shape their social lifestyles in the future. At this point, primary school is of great importance in the formation and internalization of these values (Yeşil, 2003). To help students gain democratic attitudes and behaviors at the primary school level, lessons such as life sciences and social studies are essential. The

* This study was produced from the thesis titled “Investigation of the relationship between the critical thinking dispositions and democratic attitudes of primary school 4th grade students” by Mehmet Kara under the supervision of Cüneyit Akar.
† Corresponding Author: Cüneyit Akar, akarcuneyt@gmail.com
constructivist approach, which is in line with the democratic approach, has been taken as the basis of the programs renewed in 2005 (MEB, 2005; 2015). When considered from this point of view, it is seen that more than half of the basic skills, values and learning objectives identified in the social studies program are related to democracy (Tonga, Keçe & Kilicioğlu, 2013; Polat & Gülter, 2020). Besides, it has been found that more than half of the concepts in the 4th-grade Social Studies Teacher Manual are related to democracy (Akar & Doğan, 2016). Some studies conducted in Turkey found that primary school students (Aslan, 2018; Tiryaki, 2018) and secondary school students (Doganay & Yellow, 2004; Ural & Scott, 2011) have a high level of democratic attitudes. These findings point out the importance of gaining democratic attitude and behavior. Undoubtedly, the programs are not sufficient alone in acquiring attitudes and values. Family and teachers' attitude is especially effective in gaining values (Subba, 2014; Bradshaw, 2014).

One of the essential characteristics of democracy is that it allows different thoughts, attitudes and information sources to coexist. Democracy also offers an atmosphere where many ideas and ideologies compete with each other. With the mass media becoming widespread, this competitive environment can bring enormous intellectual wealth to individuals. However, it should be taken into consideration that this situation also comes with some disadvantages that must be handled. The widespread use of mass media also poses serious risks and threats, especially for children and young people. It is seen that this platform is also used as a propaganda center for malicious ideas and thoughts. The purpose of educational institutions is to equip their citizens with essential instruments to know how to benefit from these means and to protect themselves from risks and dangers. At this point, critical thinking, one of the basic intellectual skills that will support a democratic attitude, is needed.

At this stage, the relationship between critical thinking, one of the independent variables of the research, and the democratic attitude, the dependent variable, was tried to be based on theoretical explanations and field studies in the light of the information obtained as a result of the literature review.

**Relationship between Democratic Attitude and Critical Thinking**

Critical thinking has sub-dimensions of skill, tendency, and habit (Gündoğdu, 2009). Critical thinking as a skill can be defined as “the individual's thinking rationally and thoroughly when deciding what s/he is doing or what s/he believes” (Ennis, 1996). Skill is mostly seen as the mental and analytical thinking activity of individuals, whereas tendency/attitude is defined as a consistent internal motivation in relation to problems and decision making by using their thoughts (Good, 2011). Tendency turns into behaviors and attitudes and it is a feature that affects and directs individuals’ lives (McCarthy, 1992). Ennis (1996) defined critical thinking disposition as a tendency to critically thinking. People who are inclined to think critically have certain characteristics such as looking for the clear statement of the thesis or problem, trying to be well informed, using reliable sources, giving references to the sources used, considering the situation completely, trying to stick to the main point, keeping the main problem in mind, searching for options, and being open-minded (Ennis, 1996). Although having a critical thinking disposition/attitude does not mean that individuals use critical thinking skills effectively in their daily lives, many studies have found that there is a significant relationship between critical thinking disposition/attitude and critical thinking skill (Facione, 2000; Sulaiman, Rahman & Dzulkifli, 2009).

It is seen that the development of critical thinking skills in students is given importance with renovated programs in Turkey (MoNE, 2005). It is possible to say that the studies on this subject vary. Some studies in Turkey found students' critical thinking skills higher (Demir, 2006; Kalkan, 2008; Karabacak, 2011; Yıldız, 2011; Aslan, 2018), while some others found critical thinking levels low or moderate (Özdemir, 2005; Gülveren, 2007; Akar, 2007; Görcü, 2014; Akar & Kara, 2016). Although the number of studies on this subject has increased in recent years, it is difficult to say that these are sufficient. It is expected that such an important skill should be included in academic studies more because critical thinking is one of the most important requirements for success in a democratic society (Siegel, 1988; Yamaguchi & Maguth, 2005; Doğanay, Akbulut, Taş & Erden, 2007; Cirik, 2008; Boone, 2008; Edwards, 2010).

According to Smith (2009), the main purpose of democratic education is not only to improve students' cognitive abilities but also to help them have democratic and critical thinking attitudes. This is because democratic attitude requires individuals to have characteristics such as searching for information, critical thinking, questioning, and taking responsibility. In democratic environments, it is possible to encounter various situations such as participation in decisions, making individual choices with free will, having or developing a unique world view, and making political, social, educational, or commercial choices among different options. Under these circumstances, individuals need to have a critical and questioning perspective in order to make the most appropriate decision by themselves. According to Tung and Chang (2009), individuals can only have competitive skills in a global society with good critical thinking skills. Likewise, Tsui (1999) underlined that developing critical thinking in students is of importance in preserving the desired democratic society and increasing the workforce in an increasingly complex world. This enables individuals to evaluate their mindset, personal decisions, and actions (Hawkins, 2006). On the other hand, to be a good critical thinker, it is necessary
to think freely, express their feelings and discuss what they think, which requires a democratic environment (Celep, 1995; Yeşil, 2003). In this sense, the development of critical thinking without democracy is out of the question and vice versa (Akar, 2017).

Apart from the studies that theoretically state that there is a relationship between critical thinking and democratic attitude, there are also studies that test the relationship between these variables. In a study by Acun, Demir, and Göz (2010), a positive correlation \( (p = 0.31) \) was found between pre-service teachers’ critical thinking skills and citizenship behaviors. Uluçınar (2012) found that pre-service teachers’ critical thinking disposition predicted their democratic attitudes at the level of 18%. Likewise, in a study conducted on prospective teachers, it was pointed out that critical thinking tendencies of prospective teachers predicted their multiculturalism tendencies at the level of 25% (Akar, 2017). Tubarik and Gün (2016), who discussed the democratic classroom environment as an independent variable, concluded that perceiving the classroom environment democratically affected students’ critical thinking disposition at the level of 7%. In the study conducted by Aslan (2018), he concluded that the critical thinking skills of elementary school 4th-grade students account for 11% of their democratic attitudes.

These findings point out that there is a relationship between critical thinking and democratic attitude and similar features. However, it is seen that the findings of the studies carried out especially in primary school are limited. Based on the aforementioned reasons, this study aims to determine to what extent students’ critical thinking attitudes predict their democratic attitudes on a different sample group. It is of great importance to determine the relationships between such variables with a wide range of studies in Turkey, a country having different geographical and socio-economic characteristics, and having a population of 83 million citizens consisting of young people in particular.

The Relationship between Democratic Attitude and Socio-Economic Factors and Some Personal Variables

A large number of variables that affect the democratic attitude can be listed. However, it is not possible to handle all variables in a single study at once. For this reason, along with the critical thinking attitude, the variables such as gender, socio-economic characteristics (parents’ education levels, household income level, place of residence), academic success, reading habits, and television watching time were discussed as independent variables. The reasons for choosing these variables as predictive independent variables of the study were tried to be grounded on in the light of the findings obtained from the field studies.

Gender

It has been observed that the gender variable was included in all studies on democratic attitude. Some studies have found that democratic attitudes vary by gender. As a result of the literature review, the democratic attitudes of female students were found higher than that of male students in the studies conducted in primary school (Aslan, 2018), secondary school (Sağlam, 2000; Kaldırım, 2003; Gürbüz, 2006; Ural & Sağlam, 2011; Şimşek, 2011; Yüksele, Bagcı & Vatansever, 2013; Kuş & Çetin, 2014; Öztaşkın & İfen, 2015) and high school (Doğanalay & San, 2004; Ulusoy, 2007; Diker, 2012). Similar results were also reached in the studies carried out with the participation of higher age groups. Likewise, females were found to have higher democratic attitudes compared to males in the studies on prospective teachers studying at various departments (Saracoğlu, Evin & Varol, 2004; Turan & Taşpınar 2004; Genç & Kayaşat, 2007; Gömleksiz & Kan, 2008; Akın & Özdemir, 2009; Aydemir & Aksoy, 2010; Meray, Kaynakçı & Küçükoğlu, 2011; Ekici, 2014); teachers (Büyükakaragöz & Kesici, 1996; Taçman, 2006; Uştün, 2011; Kurnaz, 2011; Karatekin, Meray & Kuş, 2013; Özbaş, Ekinç & Bindak, 2014; Arslan & Çalışmaş, 2017) and school administrators (Özcan, Türkoğlu & Şener, 2010; Arslan & Çalışmaş, 2018). In contrast to these findings, some studies did not find any difference by gender. There was no difference in democratic attitudes by gender in the studies on the students in primary (Tiryaki, 2018) and secondary schools (Çırak, 2019), prospective teachers (Dilekmen, 2000; Ömerustaoglu, 2004; Karahan, Sardan, Özkamal, Dicle & Dicle, 2006; Ercoskun & Nağcı, 2008; Ekteş & Sünbülbül, 2011; Naziroğlu & Çetin, 2014; Elkatmias & Toptaş, 2015; Akar, İne & Yalnız, 2017) and teachers (Yalçın, 2007; Şahin, 2008; Yılmaz, 2011; Karatekin, Meray & Kuş, 2013; Kontaş, Selçük & Polat, 2016). In another study conducted with the participation of prospective teachers, Çermik (2013), however, found that the difference favored the men.

Findings obtained from the research results show that gender factor can be a predictive variable on the democratic attitude in all age groups. Based on these reasons, gender variable was included in the research.

Socioeconomic Factors

Parents’ educational level, income level and the place of residence were included in the study as socio-economic factors. In a research within the scope of the Project on Monitoring and Evaluation of Academic Skills (ABIDE) conducted by MoNE (2019) in 2018, it was determined that the mother’s education level is an important
variable affecting the fourth-grade students’ overall success. There are also studies suggesting that the democratic attitudes of students have increased with the rise in the mother’s education level. In the study conducted by Tiryaki (2018) on the 3rd-grade elementary school students, it was concluded that the democratic attitudes of the students differ according to the mother’s education level. Likewise, some other studies in the context of elementary school level (Ural & Sağlam, 2011; Kuş & Çetin, 2014), it was found that the mother’s education level affects the democratic attitudes of elementary school students. Similar results were obtained in the studies conducted on prospective teachers studying in various departments. Nazroğlu and Çetin (2014), Gömleksiz and Çetintaş (2011) and Evcimik (2009) concluded that the mother’s education level affects the democratic attitudes of the students. In contrast to these findings, some studies reported that no significant difference was found according to the father’s education level. In some studies conducted at elementary school level (Karadağ, 2007; Baltacı, 2010; Alpoğuz & Şahin, 2014; Çalmaşur & Genç, 2012; Karakaş, 2008) and democratic classroom environment (Tubarik, 2011; Kardaş, 2013; Sağlam, 2000; Aycan & Çalış, 2003; Şimşek, 2011), it was concluded that the democratic attitudes of elementary school students do not differ significantly according to the mother’s education level. Some other studies conducted on university students (Kılıç, Erçoşkun & Naşçaci, 2004; Bulut, 2006; Genç & Kalafat, 2008; Aydemir & Aksoy, 2010; Meray, Kaymakçı & Kılıçoğlu, 2011; Yazıcı, 2011; Ekici, 2014; Elkatmış & Toptaş, 2015) also found that the democratic attitudes of prospective teachers do not differ significantly according to the mother’s education level.

There are studies indicating the democratic attitudes differ positively according to the father’s education level. In a study conducted by Kuş and Çetin (2014) on elementary school students, it was concluded that the father’s education level influences the students’ perceptions of democracy. Also in some studies (Özbeke, 2004; Saracağloğlu, Evin & Varol, 2004; Bulut, 2006; Gömleksiz & Kan, 2008; Evcimik, 2009; Yazıcı, 2011) conducted on prospective teachers studying in various departments, it was concluded that the father’s education level influences the democratic attitudes of students. In contrast to these findings, no significant difference was found according to the father’s education level. In the context of elementary school level, there are studies suggesting that democratic attitudes do not differ according to the father’s education level (Ural & Sağlam, 2011; Kardaş, 2013).

In the literature, some studies pointed out that the household income level affects the democratic attitudes of the students. In some studies conducted on elementary school students (Kuş & Çetin, 2014; Şimşek, 2011), it was proved that the household income level positively affects the students’ perceptions of democracy. Likewise, the studies carried out by Güven (2005) on secondary school students, and by Evcimik (2009) on education faculty students concluded that the household monthly income has a positive impact on the students’ democratic attitudes. On the other hand, in a study conducted in elementary schools (Konak, 2012), no significant difference was found in the democratic attitudes of students according to their household income levels. Furthermore, some other studies conducted on prospective teachers (Kılıç, Erçoşkun & Naşçaci, 2004; Ömerustaçoğlu, 2004; Gömleksiz & Kan, 2008; Akin & Özdemir, 2009; Meray, Kaymakçı & Kılıçoğlu, 2011; Elkatmış & Toptaş, 2015) found that household monthly income do not have a significant effect on students’ democratic attitudes. Apart from these studies, there are various studies suggesting that income level and democratic attitude are inversely related; democratic attitudes decrease as the income level increases (Karatekin, Meray & Kuş, 2013; Gömleksiz & Çetintaş, 2011).

Some studies suggest that the democratic attitudes differ according to the place of residence. Güven (2005) conducted a study on secondary school students and found that in the history lesson, the democracy understanding of the students who live in urban areas was found to be higher. In a study conducted by Arslan and Çalışmaş (2017) on teachers, they concluded that the democratic attitude scores of elementary and secondary school teachers differ significantly according to the variable of the place of the residence. In the same study, the democratic attitude scores of the teachers working in districts were found to be higher than those who work in the province. On the other hand, in a study conducted by Erçoşkun ve Naşçaci (2008) on prospective teachers, it was concluded that the place of residence has no significant effect on their democratic attitudes.

The research findings indicate that variables such as parents’ education level, income level and the place of residence may have a predictive effect in the democratic attitudes.

**Academic Success, Reading and Television Viewing Habits**

No studies were found to analyze the relationship between students’ democratic attitudes and their academic success. However, there are studies that found democratic family (Alpoğuz & Şahin, 2014; Karadağ, 2007; Kaya, Bozsalan & Genç, 2012; Karakaş, 2008; Baltacı, 2010) and democratic classroom environment (Tubari & Gün, 2016) have a positive effect on students’ overall success. Families and teachers’ having democratic attitudes is extremely crucial for the children to adopt democracy and develop a positive attitude. The students
having this attitude also acquire the awareness of the fact that the freedoms provided by democracy also impose certain responsibilities on them. Therefore, it is expected from students who have adopted this attitude to be successful in academic tasks, which is one of their prior responsibilities.

During the literature review, no studies were found on the relationship between the reading habits and the democratic attitude. However, a study suggesting that there is a relationship between empathic sensitivity, which is one of the characteristics of democratic attitude, and reading habits (Zorlu, Öneren, & Çiftçi, 2019). In another study on teachers, it was concluded that reading habits affect the students’ happiness (Altuntaş & Genç, 2018). In a study on aggressive behaviors that can be considered as the opposite of the democratic attitude, it was determined that the students with the highest aggression scores are the ones who read books the least (Sili, 2012). According to the ABIDE report (2018), it was found that the students who display the least bullying behavior read more books than the ones displaying bullying behavior the most. Since reading books improves the ability of thinking and empathizing in the individual, students who stay away from reading books have relatively uncontrolled attitudes (Sili, 2012).

Although there were no studies on the relationship between the television viewing time and democratic attitude, there are studies suggesting that spending a lot of time watching TV and using mobile phones or tablets have negative effects on students’ academic success (Akar & Kara, 2017). According to a study on elementary students by MoNE (2008), the biggest harm of television watching was determined to be eliminating the opportunity of having a conversation in the family. It can be suggested that the decreased communication in the family will create a negative impact on the emergence and development of democratic values in family members.

These findings suggest that academic success, reading and television viewing habits may be related to democratic attitudes. In the light of this information, these variables have been included in the scope of the research.

As can be seen from the literature findings, sampling of studies discussing the democratic attitude and critical thinking in Turkey generally consist of prospective teachers, secondary and high school students. It is seen that very few studies were done in the context of elementary school level. It should be noted that the studies are mostly based on the difference between averages, and there is a limited number of studies that aims to explain or predict the variance in democratic attitudes. Therefore, it can be said that such studies are extremely insufficient and further studies are required. From this point of view, this study firstly aims to determine the students’ democratic attitude levels and critical thinking attitude levels, and then to determine to what extent the students’ critical thinking attitudes and some other variables can predict their democratic attitudes. Specifically, this study sought to answers the following research questions:

1. What is the level of democratic and critical thinking attitudes of the fourth-grade elementary school students?
2. To what extent the following variables predict the fourth-grade students’ democratic attitudes;
   a) Critical thinking attitudes,
   b) Gender,
   c) Mother’s education level,
   d) Father’s education level,
   e) Household monthly income,
   f) Place of residence,
   g) Academic success,
   h) Number of the books read monthly and
   i) Daily television viewing time.

Method

Research Model

This study, which aims to examine the fourth-grade students' democratic attitudes in terms of critical thinking attitudes and other (demographic) variables, was carried out using the relational screening model, which is one of the quantitative research methods. Relational screening model "aims to determine the existence and degree of co-variation between two or more variables" (Karasar, 2005: 81). The dependent variable of the research is the students' democratic attitudes. The independent variables of the research are a) critical thinking attitudes, b)
gender, c) socioeconomic factors (parental educational background, income, place of residence), d) academic success, monthly reading habits and television viewing time.

Population and Sampling

The population of this research consists of 22,478 fourth-grade students in the primary schools in the central districts of Diyarbakır in the 2017-2018 academic year. The sampling of the research was selected using the stratified sampling method based on the socio-economic levels of schools. Prior to the sampling, the schools were stratified into sub-population groups as lower, middle, and high socioeconomic groups with the help of the provincial directorate of national education. Afterwards, 25 schools, which can be reached by the researchers easily, were selected as the sampling. These 25 schools consisted of 8 low socioeconomic, 9 middle socioeconomic, and 8 high socioeconomic groups for the sake of accurate distribution. As a result, the sampling of the research consisted of 1066 students studying in these 25 schools. After the schools were determined, no specific student selection was made in the schools; all fourth-graders within the scope of the research were included in the sampling. Information about the participants is given in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Descriptive Information about the Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother’s Education Level</strong></td>
</tr>
<tr>
<td>Illiterate</td>
</tr>
<tr>
<td>179</td>
</tr>
<tr>
<td>Primary school</td>
</tr>
<tr>
<td>322</td>
</tr>
<tr>
<td>Secondary school</td>
</tr>
<tr>
<td>188</td>
</tr>
<tr>
<td>High school</td>
</tr>
<tr>
<td>227</td>
</tr>
<tr>
<td>Undergraduate/Graduate</td>
</tr>
<tr>
<td>150</td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
</tr>
<tr>
<td>Minimum Wage</td>
</tr>
<tr>
<td>277</td>
</tr>
<tr>
<td>1601-2000 TL</td>
</tr>
<tr>
<td>343</td>
</tr>
<tr>
<td>2001-3000 TL</td>
</tr>
<tr>
<td>211</td>
</tr>
<tr>
<td>3000 TL and above</td>
</tr>
<tr>
<td>235</td>
</tr>
<tr>
<td><strong>Academic Success</strong></td>
</tr>
<tr>
<td>0-40</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>6-10 books</td>
</tr>
<tr>
<td>168</td>
</tr>
<tr>
<td>60-80</td>
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<tr>
<td>194</td>
</tr>
<tr>
<td>16-20 books</td>
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<td>248</td>
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<tr>
<td>80-100</td>
</tr>
<tr>
<td>818</td>
</tr>
<tr>
<td>76.7</td>
</tr>
<tr>
<td><strong>Daily TV Viewing Time</strong></td>
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<tr>
<td>Never watch</td>
</tr>
<tr>
<td>45</td>
</tr>
<tr>
<td>1-2 hours</td>
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<tr>
<td>457</td>
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<tr>
<td>3-4 hours</td>
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<td>58</td>
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<td>5 hours and above</td>
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<tr>
<td>5.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>1066</td>
</tr>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

Data Collection Tools

A personal information questionnaire, democratic attitude scale and critical thinking scale were used in the study.

Personal Information Questionnaire

A Personal Information Questionnaire developed by the researchers was used to collect personal information of the students participating in the research. In the personal information questionnaire, the gender of the students, the educational background of the parents, the place where the family lives (village, town/county, province), academic achievements (the average of grades of Turkish, Mathematics, Science and Social Studies lessons), the number of books read per month, daily television viewing times (in hours).

Democratic Attitude Scale

The “Democratic Attitude Scale (DAS)” developed by Erbil and Kocabaş (2017) was used to determine the democratic attitude levels of the students constituting the study group. Composed of a total of 10 items, the DAS is scored in three-point Likert scale as ‘no’ (1), ‘sometimes’ (2), ‘yes’ (3). The total scores that can be obtained
from the scale vary between 10 and 30. 7 of the 10 items are positive items and 3 of them are negative items. As a result of the exploratory factor analysis, it was determined that 10 items grouped under a single factor and the factor loads of the scale items ranged between 0.41 and 0.66. As a result of confirmatory factor analysis, the fit indices were determined to fit well ($x^2 = 42.52$, $x^2 / sd = 1.214$, RMSEA = 0.03, SRMR = 0.035, GFI = 0.98, AGFI 0.96, CFI = 0.99 and NNFI = 0.99). The total score correlations of the DAS were found between 0.24 and 0.50. Cronbach Alpha reliability value of the scale was found to be .76. In the light of the data obtained in this study, the Cronbach Alpha reliability coefficient of the scale was found .76, suggesting that the scale is reliable.

**Critical Thinking Attitude Scale**

"Critical Thinking Attitude Scale" was used to determine the critical thinking attitudes of the students. The scale was firstly developed by Akar Vural (2005) to measure the effect of two different programs on the 9th-grade students' attitudes towards critical thinking. The scale, which has 20 items, consists of seven dimensions (open-mindedness, problem-solving, fatalism, paranormal beliefs, dogmatism, conservatism, and discussion). 12 of 20 items are negative and 8 of them are positive. The scale is scored in the five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The correlations between the sub-dimensions of the scale and the total score were found to range between .43 and .67.

In this study, 3 of the 20 items in the scale (items 2, 13 and 14) were not found appropriate by the Provincial Directorate of National Education. Therefore, the scale was implemented based on 17 items. The lowest score that can be obtained from the scale is 17, and the highest score is 85. Cronbach Alpha reliability value of the scale was found .76 after it was revised. The scale was evaluated on a single dimension, and analyzes and interpretation were made accordingly.

**Implementation, Analysis and Interpretation of Data**

The scales were implemented by the researcher himself. Prior to the implementation, necessary permissions were obtained from the Directorate of National Education. In addition, school administrators and classroom teachers supported the researcher during the implementation process and the students were asked to fill in the form on a volunteer basis.

The collected data were transformed into computerized data and analyzed using a statistical software package. The data obtained before the data analysis were examined and revised in terms of missing or incorrect values, outliers, normality, and multivariate outliers; 45 pieces of data were not suitable and they were eliminated. After these procedures, the remaining data of 1066 students were analyzed. Prior to the analyzes, the negative items in the scales were reversed.

During the analysis, the average and standard deviation values of the students' democratic and critical thinking attitudes were calculated. The formula "number of choices - 1 / number of choices" was used to calculate the score ranges, and the result was 0.80 for the critical thinking attitude scale (5-1/5) and 0.66 for the democratic attitude scale (3 - 1/3). Besides, the standard values obtained were converted into percentile scores.

Since gender and the place of residence are categorical variables, they have been converted into artificial variables before the correlation analysis. For this purpose, gender was numbered as 1 (girl) and 2 (boy); and place of residence was numbered as 1 (village), 2 (district), and 3 (province). Interpretations were made based on this classification. Pearson moment correlation coefficient technique was used to determine the relationship between democratic attitude and critical thinking attitude, and Spearman Rho coefficients were calculated to explain the relationship between democratic attitudes and other rank-order variables such as parents' educational background. The point-biserial correlation technique was used for the gender variable. After the correlation analysis, multiple regression analyzes were performed.

Regression analysis can determine how much of the variance in the dependent variable can be explained or predicted by variables, as well as to what extent these variables are effective (Büyüköztürk, 2004). In this study, the available data were subjected to multiple hierarchical regression analysis. The analyzes were carried out in 4 stages. In the first stage, the gender variable was included in the regression model. In the second stage, mother's and father's education level, place of residence, and household monthly income level were included in the model. In the third stage, books read monthly, academic success and television watching time were included in the model. In the fourth and last stage, the scores related to the students' critical thinking attitude scale were included in the model.

**Findings**

The findings related to the average, standard deviation and percentile values of the fourth-graders' democratic and critical thinking attitudes are shown in Table 2.
The average score of the students on the Democratic Attitude Scale is 2.67 (89%) on the 3-point Likert type scale, and the average score they got on the Critical Thinking Scale is 3.67 (73.4%) on the 5-point Likert type scale. According to this, it can be said that the democratic attitude levels of the fourth-grade students who participated in the study are "very good" and their critical thinking levels are "good". The 'very good' level of democratic attitude scores can be interpreted in a way that the level reached is "sufficient". Critical thinking scores of the students were determined as "good". Although this statement may seem positive at first glance, there is an important difference between students' democratic attitudes and their critical thinking attitudes considering the percentages. The scores related to critical thinking attitude are very low compared to the democratic attitudes. In addition, given the importance and necessity of critical thinking, these results do not make it possible to suggest students' critical thinking attitude levels are "sufficient".

Correlations between the variables predicting students' democratic attitude levels

The correlations between the predictive variables of the research and the predicted variable were calculated before proceeding to the regression analysis, and the correlation coefficients are listed in Table 3.

Table 3. Correlations between the variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Democratic attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2- Critical thinking attitude</td>
<td>22**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3- Mother’s education level</td>
<td>.13**</td>
<td>.08**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4- Father’s education level</td>
<td>.20**</td>
<td>.11**</td>
<td>.52**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5- Household monthly income</td>
<td>.01</td>
<td>.00</td>
<td>.31**</td>
<td>.29**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- Place of residence</td>
<td>.18**</td>
<td>.11**</td>
<td>.10**</td>
<td>.15**</td>
<td>.08**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7- Gender</td>
<td>-.04</td>
<td>-.04</td>
<td>.00</td>
<td>.02</td>
<td>.03</td>
<td>-.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8- Academic success</td>
<td>.24**</td>
<td>.07**</td>
<td>.27**</td>
<td>.31**</td>
<td>.21**</td>
<td>.17**</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9- Number of books read monthly</td>
<td>.15**</td>
<td>.08**</td>
<td>.21**</td>
<td>.22**</td>
<td>.18**</td>
<td>.07**</td>
<td>-.03</td>
<td>.28**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10- Daily TV viewing time</td>
<td>-.24**</td>
<td>-.08**</td>
<td>-.10**</td>
<td>-.14**</td>
<td>-.06</td>
<td>-.02</td>
<td>.11**</td>
<td>-.11**</td>
<td>-.12**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**, 0.01 level of significance; *, 0.05 level of significance

Having analyzed Table 3, it is seen that there are low-level significant relationships between students' democratic attitude scores and critical thinking attitude scores and some other variables. The level of the relationship between democratic attitude and critical thinking attitude was calculated as r=,22. The critical thinking attitude variable was the third variable that had the highest relationship with democratic attitude following television viewing time and academic success.

It can be seen that the daily television viewing time (r=,-24) and academic success (r=,.24) have the highest relationship with the students' democratic attitude scores. As the students' television viewing time increases, their democratic attitude scores decrease; however, as their academic success increases, their democratic attitude scores increase. It is seen that there is a positive relationship between the number of books read monthly and democratic attitude (r=,.15). As for the gender variable, no relationship was found between gender and democratic attitudes.
It is also noteworthy that there are significant relationships between democratic attitudes and the variables that show the socioeconomic status of students. The highest relationship among these is with the father's education level (r = .20). Then comes the place of residence (r = .18). The residential area where the students' families live is numbered from the village to the province. For this reason, it can be interpreted that the democratic attitudes increase as the place of residence shifts from village to the province. To put it in simple terms, as the people live in cities more, their democratic attitudes increase. Another socioeconomic variable is the mother's education level. As the mother's educational status increases, an increase is observed in the democratic attitudes of the students (r = .13). In terms of the household income, no significant relationship was found between income and democratic attitudes.

In brief, the students' democratic and critical thinking attitudes are positively related to the parents' educational status, the students' living in urban areas rather than rural areas, their academic success and reading habits. On the other hand, as the students' television viewing time increases, their democratic attitudes decrease. No relationship was found between the students' democratic attitudes and the variables of gender and household income.

**Regression Analysis regarding Students' Democratic Attitude Scores**

The data collected in this study were subjected to hierarchical regression analysis. At this step, independent variables were included in the regression model in turn and each variable set's level of predicting the democratic attitude scores was calculated. The results are shown in Table 4. Afterwards, the regression coefficients for the data were calculated in order to understand to what extent the variables subjected to regression analysis were effective in predicting the scores. The results are shown in Table 5.

Table 4. Hierarchical regression model for the total scores of students' democratic attitude scale

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.037*</td>
<td>.001</td>
<td>.000</td>
<td>3.82</td>
<td>.001</td>
<td>1</td>
<td>1</td>
<td>1064</td>
<td>.233</td>
</tr>
<tr>
<td>2</td>
<td>.257*</td>
<td>.066</td>
<td>.062</td>
<td>3.70</td>
<td>.065</td>
<td>4</td>
<td>1</td>
<td>1060</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>.374*</td>
<td>.140</td>
<td>.133</td>
<td>3.55</td>
<td>.074</td>
<td>3</td>
<td>3</td>
<td>1057</td>
<td>.000</td>
</tr>
<tr>
<td>4</td>
<td>.408*</td>
<td>.167</td>
<td>.160</td>
<td>3.50</td>
<td>.027</td>
<td>1</td>
<td>1</td>
<td>1056</td>
<td>.000</td>
</tr>
</tbody>
</table>

1* Predictor: (Constant), Gender
2* Predictor: (Constant), Gender, Mother’s Education Level, Place of Residence, Household Monthly Income, Father’s Education Level Monthly, Academic Success Scores, Daily TV Viewing Time
3* Predictor: (Constant), Gender, Mother’s Education Level, Place of Residence, Household Monthly Income, Father’s Education Level, Books Read Monthly, Academic Success Scores, Critical Thinking Attitude Scores

In regression analysis, gender was the first variable included in the model. The gender variable alone explains 0.1% of the students' democratic attitudes (R^2 = .001). Based on this result, p value is not significant (p = 0.23) considering the change in F value. It is seen that gender does not have a significant effect on predicting students' democratic attitudes.

Socioeconomic factors (mother's education level, father's education level, the residence of place and household income) were included in the model as the second set of variables along with gender. It is seen that socioeconomic factors predicted students' democratic attitudes at 6.6% (R^2 = .066). When the gender effect excluded, socioeconomic variables alone predict the democratic attitude variance at the level of 6.5%. P-value seems to be significant (p = 0.00) considering the change in F value, suggesting that socioeconomic variables significantly predict students' democratic attitudes.

The third set of variables included in the model was the number of books read monthly, academic success, and television viewing times. It is seen that the number of books read monthly and academic success and TV viewing time, along with the previous variables, predicted students' democratic attitude scores at the level of 14% (R^2 = .14). The power of the set of variables to predict the students' democratic attitude scores alone was determined as 7.4% (R^2 = .074). Considering the change in F value, it is seen that p value is significant (p = 0.00), suggesting that the number of books read monthly, academic success and TV viewing time variables predict students' democratic attitudes significantly.

Students' scores regarding the critical thinking attitude scale were included in the model the last. It was found that the critical thinking scores along with the previous variables predicted approximately 16.7% of the variance in the students' democratic attitude scores. Critical thinking attitude scores alone predict the variance at about
2.7% \((R^2 = 0.027)\). It is seen that \(p\) value is significant considering the change in \(F\) value \((p = 0.00)\), suggesting that critical thinking attitude scores significantly predict students' democratic attitude scores.

Considering all variables together, as a result, it can be suggested that all variables predicted 17% of the variance in students' democratic attitude scores. The most predictive variable of students' democratic attitude levels is the academic success, reading habit and TV viewing time with 7.4%. Then comes mother and father's education level, income status and place of residence (6.5%). Students' critical thinking attitudes predict their democratic attitude level at the level of 2.7%. Gender appears to have no predictive effect.

Regression coefficients relating to the data are listed in Table 5 to understand to what extent the variables subjected to regression analysis are effective.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>18,451</td>
<td>15,745</td>
</tr>
<tr>
<td>Gender</td>
<td>.005</td>
<td>.001</td>
</tr>
<tr>
<td>Mother’s Education Level</td>
<td>.038</td>
<td>.013</td>
</tr>
<tr>
<td>Father’s Education Level</td>
<td>.291</td>
<td>.092</td>
</tr>
<tr>
<td>Household Monthly Income</td>
<td>-.297</td>
<td>-.086</td>
</tr>
<tr>
<td>Place of Residence</td>
<td>.960</td>
<td>.115</td>
</tr>
<tr>
<td>Academic Success</td>
<td>.236</td>
<td>.162</td>
</tr>
<tr>
<td>Books Read Monthly</td>
<td>.161</td>
<td>.051</td>
</tr>
<tr>
<td>Daily TV Viewing Time</td>
<td>-.1,150</td>
<td>-.187</td>
</tr>
<tr>
<td>Critical Thinking Attitude</td>
<td>.061</td>
<td>.166</td>
</tr>
</tbody>
</table>

Considering the regression coefficients, the variable that affects the students' democratic attitudes the most is the daily TV viewing time \((\beta = -.187; p = 0.00)\). The second highest predictive variable appears to be the critical thinking attitude \((\beta = 1.66; p = 0.00)\). Then comes the students' academic achievements \((\beta = 1.62; p = 0.00)\), the place of residence \((\beta = 1.15; p = 0.00)\), father's education level \((\beta = 0.92; p = 0.00)\), and household monthly income \((\beta = .086; p = 0.05)\); these variables were found to predict democratic attitudes significantly.

Increasing television viewing time affects students' democratic attitudes negatively. On the other hand, it is seen that the variable that affects the democratic attitude most positively is the critical thinking attitude. It is seen that the variable that affects democratic attitudes most positively after the critical thinking attitude is academic success.

Regression coefficients show that the father rather than the mother is effective on students' democratic attitudes. It is seen that the household income affects democratic attitudes negatively. Increased financial status reduces students' democratic attitudes. As the place where the family lives shifts from rural areas to urban areas, the democratic attitudes of the students are affected more positively, suggesting that the democratic attitudes of the children whose families reside in urban areas rise.

It is seen that gender, the number of books read monthly, and the mother's education level that is significantly correlated with the students' democratic attitudes have no significant effects on the students' democratic attitudes.

**Conclusion and Discussion**

**Conclusion and Discussion on Primary School Students' Democratic and Critical Thinking Attitude Levels**

Research results suggest that the primary school fourth-grade students' democratic attitude levels are "very good". The results of the current study are the same as the results of the study conducted by Aslan (2018) using the same scale on the fourth-graders. Both studies found the average of the students' democratic attitudes as 2.67. Tiryaki (2018) concluded that primary school third graders' democratic attitude levels were high. It is seen that some studies on primary and secondary school students found similar results (Doğanay and Sarı, 2004; Ural and Sağlam, 2011). Similar results were reported in the studies on teachers and prospective teachers (Yurtseven, 2003; Özdaş, Ekinci & Bindak, 2014; Elkatmış & Toptaş, 2015; Kesici, Pesen & Oral, 2017). Yuksel, Başçılar and Vatansever (2013) conducted a study on the last graders in grade schools in seven different regions of
Turkey, and Diyarbakır was found to be the province with the highest "tolerance" value. Our findings coincide with the results of these studies.

As a result of the research, students' critical thinking attitudes were found "good" (73%). This result is quite low compared to students' democratic attitude scores. Besides, given the importance and necessity of critical thinking, it is not possible to say that this result reflects the desired level.

Having examined the studies conducted in primary, secondary and high schools in Turkey, it is seen that some studies found students' critical thinking skills high (Demir, 2006; Kalkan, 2008; Karabacak, 2011; Yıldız, 2011; Aslan, 2018), while some other studies found students' critical thinking skills low or medium-level (Özdemir, 2005; Gülveren, 2007; Akar, 2007; Görücü, 2014; Akar & Kara, 2016). A similar conclusion was reached in the studies that examine "tendency/attitude". Some studies found students' tendency to think critically at a high or medium-high level (Kartal, 2012; Evin Gencel & Güzel Candan, 2014; Akar, 2017), while other studies found students' tendencies at medium or low levels (Tümkaya, 2011; Demir & Aybek, 2014; Kuvaoğlu & Koç, 2014). The differing results may be due to the structure of the measurement tools and the characteristics of the sampling groups.

Conclusion and Discussion on the Predictive Variables' Level of Predicting Democratic Attitudes

As a result of the research, all of the independent variables predicted about 17% of the variance in students' democratic attitudes. Of the data included in the regression model as 4 blocks, the variables that have the highest predictive power in terms of predicting democratic attitudes were the students' academic success, the number of books read monthly, and TV viewing time. It was concluded that these variables predicted students' democratic attitude scores at the level of 7.4%. The second variable group with the highest predictive power was socioeconomic variables. It was found that socioeconomic variables predicted students' democratic attitude scores at the level of 6.5%. The scores relating to the critical thinking attitude included in the model alone predicted students' democratic attitude scores at the level of 2.7%. When the regression coefficients were analyzed, it was observed that gender, mother's education level and the number of books read monthly had no significant effect on predicting students' democratic attitude scores.

When the regression coefficients were analyzed, the scores relating to the critical thinking attitude included in the model alone significantly predicted students' democratic attitude scores at the level of 2.7%. Similar results were obtained by different studies in the literature. Akar (2017) concluded that prospective teachers' critical thinking attitudes predicted 25% of their multiculturalism perceptions reflecting their democratic values and in a similar study by Uluçınar (2012), it was concluded that prospective teachers' critical thinking tendencies predicted their democratic values by 18%. Acun et al. (2010) found the level of significance of the positive relationship between prospective teachers' critical thinking skills and good citizenship behavior at the level of 0.31. Turabik and Gün (2016) concluded that democratic perception of the classroom environment affected students' critical thinking disposition at the level of 7%. In the study conducted by Aslan (2018) on the fourth graders in primary school, students' critical thinking attitudes accounted for 11% of their democratic attitudes. In the current study, students' critical thinking attitude scores account for 2.7% of the variance in their democratic attitude scores; the level of explanation was found lower than the results of the studies mentioned above. However, it can be said that the conclusion that critical thinking attitudes affect democratic attitudes was supported by this study as well and students' critical thinking attitudes and behaviors are a factor that affects their democratic attitudes. Students' democratic attitude scores increase as their critical thinking attitude scores increase. Critical thinking is closely related to active citizenship skills and is a prerequisite for raising individuals with democratic skills. Students who can think critically can use these skills more effectively when required (Doğanay, Akbulut, Taş & Erden, 2007). Therefore, in many democratic societies, individuals are expected to think critically and employ this skill in decision-making process to come up with a solution to social problems (Seferoğlu & Akbıyık, 2006). In light of this information, it can be said that the results of this study coincide with the results of various studies in the literature.

Research results show that gender alone does not have a significant effect on predicting democratic attitudes. It is seen that field studies, in this regard, have resulted in two ways. Approximately half of the field studies conducted from primary school to university level found that girls/women have higher democratic attitudes (Sağlam, 2000; Bingöl, 2000; Saracaloğlu, 2001; Kaldırım, 2003; Saracaloğlu, Evin & Varol, 2004; Turan & Taşpınar, 2004; Gürbüz, 2006; Ulusoy, 2007; Genç & Kafafat, 2007; Akın & Özdemir, 2009; Aydemir & Aksoy, 2010; Ural & Sağlam, 2011; Şimşek, 2011; Meray, Kaymakçı & Kilçoğlu, 2011; Diker, 2012; Yüksel, Başçu & Vatansever, 2013; Ekici, 2014; Kuş & Çetin, 2014; Öztaslı & İşiç, 2015; Aslan, 2018). However, other half of the studies found no significant difference by gender (Dilekmen, 2000; Kılıç, Erçoskun, & Nalçaci, 2004; Ömerustaoğlu, 2004; Karahan, Sarıdoğan, Özkanmali, Dicle & Dicle, 2006; Bulut, 2006; Ercoskun & Nalçaci, 2008; Ektem & Sünbül, 2011; 2011; Nazıroğlu & Çetin, 2014; Çetin, 2014; Elkatmish & Topçan, 2015; Akar, İnel & Yaçın Tarık Ataç, 2017; Tiryaki, 2018; Çırank, 2018). Only one study (Çermik, 2013) found a significant
different by gender in favor of men. According to the findings of these studies, girls can be said to be more prone to have democratic attitudes; however, this suggestion was not confirmed by the current study.

The findings suggest that the predictive power of the parents' educational background is due to the father's educational status, and the mother's educational status has no significant effect. This finding is similar to the findings of the study conducted by Kuş and Çetin (2014). In addition, there are also other studies suggesting that father's education status affects democratic attitudes (Saracaloğlu, Evin & Varol, 2004; Güven, 2005; Bulut, 2006; Evcimik, 2009; Yazıcı, 2011; Kuş & Çetin, 2014). On the other hand, in many studies carried out in different settings ranging from primary school to university level, mother's education status seems to be more effective (Güven, 2005; Gömleksiz & Kan, 2008; Gömleksiz & Çetintaş, 2011; Ural & Sağlam, 2011; Kardaş, 2013; Nazroğlu & Çetin, 2014; Aslan, 2018; Tiryaki, 2018). In this study, it was concluded that the democratic attitudes of the students in the sampling group are affected by the father's education status. This situation may be due to the characteristics of the sampling group. Considering the demographic data, it is seen that the educational status of the mothers in the sample group of the research is quite low. Approximately 17% of the mothers in the sampling group are illiterate and about 30% of the mothers are primary school graduates. In the Southeastern Anatolia region of Turkey, where the sampling group is located, girls' schooling rates are the lowest of the overall rates. In addition, the native language of the region is mostly not Turkish and they learn Turkish in schools. Therefore, it can be said that illiterate mothers do not know Turkish either or do not have enough knowledge of Turkish. Father's education level is higher than the mother's. The rate of illiterate fathers is about 6%. The rate of fathers having a high-school degree or above is approximately 55%. The high rate of illiterate mothers, in particular, may lead fathers to be more prominent in children's education.

There are studies in the literature suggesting that income status positively affects students' democratic attitudes. These studies were carried out in primary schools (Şimşek, 2011; Kuş & Çetin, 2014), secondary schools (Güven, 2005) and education faculties of universities (Evcimik, 2009) and they concluded that monthly income status had a positive effect on students' democratic attitudes. In some other studies, the income status was found to have no effect on democratic attitudes. The studies carried out on grading school students (Konak, 2012) and prospective teachers (Kılıç, Ercoşkun & Naļač, 2004; Ömerustaoğlu, 2004; Gömleksiz & Kan, 2008; Akin & Özdemir, 2009; Merey, Kaymakçı & Kılıçoğlu, 2011; Elkatmus & Toptaş 2015) concluded that the monthly income status did not cause any significant difference in democratic attitudes.

In this study, it was found that monthly income status had a negative effect on democratic attitudes. Albeit few, there are studies in the literature that have similar results. Gömleksiz and Çetintaş (2011) and Karatekin, Merey and Kuş (2013) concluded that the preservice teachers who have high income have low democratic attitude scores. One of the reasons behind this situation may be that the increase in financial status negatively affects the democratic attitude behaviors of individuals depending on their personality traits. Democracy embodies certain traits such as tolerance, respect, and patience towards others. The individuals standing on their own legs financially may feel the need for others less. In parallel, it may result in behaviors such as decreasing tolerance and respect towards others, and even behaviors such as looking down on others and mocking them. As a matter of fact, there are studies suggesting that peer-bullying observed among children can be demonstrated by students with high financial possibilities (Can, 2007; Pişkin, 2010; Ayık, 2014; Sari & Demirbağ, 2019). Şimşek (2011) concluded that students with the least democratic attitudes were among the highest income group. In the same study, however, the democratic attitude scores of the group, which is located in a lower step of the highest income group, were found to be significantly higher than the lower groups. These findings suggest that the income status may have a positive effect on democratic attitudes to an extent and after a point, it may have negative effects on democratic attitudes. However, it cannot be said that income status is a factor that directly affects students' democratic attitudes. Financial possibilities, in this regard, should be interpreted by considering the general personality characteristics of the students, their periodical development characteristics, family attitudes and environmental conditions. Therefore, considering these factors, it can be argued that income status can have different effects on different students.

The current study has found that there is an increase in students' democratic attitude scores as the place of residence shifts from village to city. These findings coincide with the results of the study on high school students conducted by Güven (2005). Democratic values are more city-oriented by nature. Therefore, the students whose families live in urban areas are expected to have more democratic values.

As a result of the research, it was concluded that students' democratic attitude scores were affected by academic success. It can be said that one reason for this result is that students who are more successful in their lessons may also be more harmonious in terms of following the rules in school and having good human relations. In the literature, there was no study directly related to the relationship between these two variables. In addition, some
studies that consider the democratic family and school environment as independent variables found that the democratic environment affects student achievement positively (Karadağ, 2007; Kaya, 2012; Alpoğuz & Şahin, 2014; Tubarik & Gün, 2016). Democracy provides students with opportunities to think freely, express what they think, and make decisions and choices freely. However, democracy does not provide unlimited freedom to individuals. It also imposes responsibilities of the consequences of each decision made on individuals. Therefore, democracy provides individuals with freedoms on the one hand and brings a strong sense of responsibility on the other hand. Considering the findings from this point of view, it can be interpreted that students with high democratic attitudes can also be successful in academic tasks based on their sense of responsibility.

Although the reading habit variable shows a significant relationship in the correlation table, the power of the relationship was not found significant considering the regression coefficients. Although this study did not report the expected results, the studies in the literature show that reading habits can also have a positive effect on affective characteristics. A study reported that there is a positive correlation between empathic sensitivity, which is one of the characteristics of democratic attitude, and reading habits (Zorlu, Öneren & Çiftçi, 2019). In a study on aggressive behaviors that can be considered the opposite of democratic attitude, it was found that the students with the highest aggression scores were the ones who read books the least (Sili, 2012). The ABIDE report (2018) also found that the students who displayed the least bullying behavior read more books and those who displayed this behavior read few books. Since reading books improves the ability of thinking and empathy in the individual, students staying away from books have relatively uncontrolled attitudes (Sili, 2012). The fact that a similar result was not reported by this study may have resulted from the characteristics of the sampling group or the characteristics of the measurement instruments used in the study.

According to the results of the research, the variable that predicted the democratic attitudes of the students the most was the daily television viewing time. Democratic attitude scores decrease as students' television viewing time increases. No study investigating the relationship between television viewing time and democratic attitude has been found in the literature. However, there are studies that found spending too much time watching TV and using mobile phones or tablets have a negative effect on students' overall success (Akar & Kara, 2017). A study conducted by MoNE (2008) on elementary school students found that the most harmful side of watching television was that it eliminates the opportunity to have a conversation in the family. It can be suggested that decreasing communication within the family harms the emergence and development of the democratic values in the family members. It can be suggested that the findings of both studies coincide with each other.

Suggestions

Based on the results of the research, the following recommendations are made:

- Democratic attitudes of students are at a "very good" level. On the other hand, although students' critical thinking attitudes are at a "good" level, they were found to be quite low compared to democratic attitude scores. Critical thinking attitude affects students' democratic attitudes positively. In this respect, efforts should be made to raise students' critical thinking attitudes to a higher level. For this reason, critical thinking activities should be paid more attention and given more room. However, it should be taken into consideration that critical thinking attitude, by its very nature, is influenced by informal activities and role-model behaviors exhibited by teachers. To illustrate, rumor-based expressions, complaints, events, and etc. are frequently experienced in school and classroom settings, and students often talk to their teachers about such events. The teacher can consider such situations as a case study and evaluate it as an informal activity. In such cases, the critical and democratic perspective that teachers will exhibit will motivate students to have such perspectives in similar settings. For this reason, in-service seminars, conferences, workshops, and similar activities aimed at raising teachers' awareness on these issues should be held for displaying general role model behaviors both in general and during the implementation of the activities in particular.

- It has been reported by many studies that family education is a variable that affects students. This result was also observed in this research. The effect of the family is great especially in terms of the emergence and retention of attitudes. It is seen that the mothers' educational background is low in the context of the region. The rate of illiterate people is quite high in particular. For this reason, various projects should be developed for families, especially for mothers. In addition, communication and cooperation between the school, the teacher, and the family are extremely important in the emergence and retention of attitudes. Students should see similar role model behaviors by their teachers and
parents in similar social settings such as schools and their families. For this reason, the required importance should be given to school and family cooperation not only in achieving academic success but also in bringing positive attitudes and values.

- Too much screen time on smartphones, tablets, and TV causes a negative effect on children. In this regard, teachers and families should act in cooperation and preventive measures should be taken to raise awareness among families. Children should be offered alternatives that would benefit them to spend their time and meet their needs for entertainment. It is seen that reading habit, in particular, is effective not only in academic success but also in gaining positive attitudes. Attention should be paid to the development of children's reading habits. In addition, it can be suggested that parents should get support from counseling services, and education specialists and psychologists who are experts in their fields should be invited to schools to give conferences and seminars to families and teachers.

- Research results suggest that the democratic attitude level of those who live in urban areas is high. Provincial national education administrators, school administrators, and teachers need to be more sensitive about this issue and make more efforts to help students who live in villages and towns to gain democratic attitudes.

- It is seen that the studies on these research subjects are insufficient, especially in the context of elementary education. For this reason, it may be suggested that further studies should be made with similar or different variables in elementary school settings. Apart from quantitative research, qualitative research should also be made. Therefore, it can be suggested that future studies could fruitfully explore this issue further by both quantitative and qualitative research designs.

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