Comparative Analysis of Democratic Attitude and Value Perceptions of School Administrators, Teachers, Preservice Teachers and Students: A Meta-Analysis Study

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ABSTRACT

This study aims to comparatively analyze the effect size of perceptions related to democratic attitudes and values of school administrators, teachers, preservice teachers, and students. The meta-analysis method, one of the research synthesis methods, was used in the research. Within the scope of the study, master's and doctoral theses and research articles dealing with this topic in Turkey were investigated. Based on the screening results, a total of 101 studies from 2013 to 2020 abided by the inclusion criteria. For these 101 studies comprising a sample of 33,774 people, four effect sizes were calculated. According to research results, high levels of effect size were determined based on the random effect model for opinions related to democratic attitudes and values of school administrators, teachers, preservice teachers, and students (d=41.14). The perceptions of democratic attitudes and values of participants were ranked from low to high as students (d=30.45), school administrators (d=38.66), teachers (d=47.86), and preservice teachers (d=51.73). There was a significant difference between the opinions of participants (p=0.00). Students appeared to have the lowest perceptions of democratic attitudes and values. According to the results of moderator analysis, the effect sizes of studies were determined to differ depending on publication type (p=0.00), educational level (p=0.00), gender of the researcher (p=0.00), and the region of the research (p=0.00). Concerning the meta-regression results for the effect size in terms of the year the research was performed, there appeared to be a falling trend in perceptions related to democratic attitudes and values of participants.

Keywords: Democratic attitude and values, meta-analysis, teachers, students, school administrators

1. Introduction

The origin of the word ‘democracy’ is the ancient Greek “dēmokratēia,” meaning “popular government.” It is a concept embracing many different values specific to humanity such as human rights and democratic awareness. It has a multidimensional meaning including features, such as freedom, equality, justice, respect, pluralism, inclusion, forgiveness, peace, participation, and development (Pover & Scott, 2014). Democracy may be defined as both a form of administration and a lifestyle (Yesil, 2002). One of the most important duties of education is to raise good citizens who have adopted a democratic lifestyle. In this situation, democracy becomes a lifestyle, and the importance of teachers and school administrators having positive democratic
attitudes becomes evident (Yasar Ekici, 2014). Educators, who direct society, reflect the democratic attitudes and values of the society.

Democratic attitude is required to display sincere attachment to the basic principles of democracy. People with a democratic attitude use the requirements of democracy in every aspect of life, have a character that reflects respect for human rights, accommodate positive values, and are individuals with a positive world view (Buyukkaragoz & Ure, 1994). The systematic way to transfer these attitudes and values to future generations is through education. The democratic culture of a country develops in relation to the quality of democracy education in schools. For this reason, the attitudes and values of preservice teachers, who will be educators in the future, teachers and school administrators have an essential role in the construction of society (Halstead & Taylor, 2000). Morrison (2009) stated that democratic education may be received in a variety of forms, from in-class democracy at micro level to administration of the educational system at macro level. A democratic school environment may be provided by displaying a democratic attitude in the mutual relations, behaviors, speech and thoughts between all stakeholders, from administrators to cleaning staff (Saracaloglu et al., 2004). Democratic attitudes of school employees affect the attitudes of students. Research showed a positive correlation between the democratic attitudes of students with attitudes of teachers (Wentzel, 2002), between democratic attitudes of school administrators with institutional commitment of teachers (Ozdemir, 2012; Gulmek, 2012), organizational trust (Sarac, 2019), organizational socialization (Ozer, 2019), motivation of teachers (Arslan, 2012), and student success (Arslan, 2012). Positive democratic attitudes of preservice teachers affect their attitudes to children's rights positively (Bagceli Kahraman & Onur Sezer, 2017), and as the democratic values of teachers increase, it is known that their multicultural adequacy perceptions also increase (Akyildiz, 2018). Students raised in a democratic school environment may play roles in decision-making processes, act empathically and respectfully towards people, have coping power for failure, and display courage in solving problems they encounter. Democratic values of individuals are associated with their democratic attitude perceptions (Dundar, 2013; Karadag, Baloglu, & Yalcinkayalar, 2006). For this reason, the primary condition to become a society with democratic attitudes and values involves having positive attitudes.

While individuals who have high democratic attitudes ensure self-realization, people with low democratic attitudes are known to have high neurotic tendencies such as losing temper rapidly in the face of criticism, frequent anger and irritation with people around them, frequent feelings of regret due to things they have done, insomnia, general tension and problematic status, inability to concentrate, general feeling of fatigue, and psychosomatic complaints (Karahan et al., 2006). Individuals with low democratic attitudes were identified to experience inadequacy in social relationships and social skills. Teachers and school administrators with high democratic attitude and value perceptions were determined to be less dogmatic (Şahin, 2008), to have high self-efficacy perceptions (Topkaya & Yavuz, 2011), high critical thinking skills (Aydin, 2019; Gun, 2019; Ulucinar, 2012), high empathic thinking skills (Palavan & Agboyraz, 2017), and high professional satisfaction (Bayramoglu & Kaya, 2017). These study results, revealing that democratic attitudes of individuals support them psychologically, demonstrate that individuals with high democratic attitudes are essential in creating healthy societies. The democratic attitude and value perceptions of members of the school community (students, teachers, school administrators and parents) have a critical impact on education, learning and teaching processes.

When the educational programs currently implemented in Turkey are investigated, it appears that the Human Rights, Citizenship and Democracy course is mandatory in the 4th grade of primary school. At the secondary school level, the Folk Culture, Thinking Education, Law and Justice courses that support democratic attitudes are included in the elective courses program. In high school education programs, Democracy and Human Rights is included in elective courses (Ministry of Education, 2018). Although the lesson contents of courses such as life science, social science, history and sociology at primary education and secondary education levels bring the concept of democracy to the forefront, it was stated that the Turkish education system does not include democracy education and democratic attitudes at the desired level (Okutan, 2010). One reason for this condition may be that democracy education remains within the scope of the lesson program and acquirements, and is not converted into behavior. In this respect, courses are not sufficient for the internalization and implementation of attitudes and values. It is important that school administrators, teachers and preservice teachers internalize democratic attitudes and values and act as models for students during the education process.
In the literature, the increase in studies investigating the democratic attitudes and values of school administrators, teachers, preservice teachers and students in Turkey in recent years has led to the need to determine and synthesize the common results by examining sample numbers and reviewing outcomes. There are no meta-analysis studies comparatively analyzing the results of research in this field encountered in the literature in Turkey or at the international level. For this purpose, international databases such as ERIC, Web of Science, EBSCOhost, Google Scholar and national databases such as ULAKBIM (Turkish Academic Network and Information Center) were examined. The aim of the research was a comparative analysis of the effect sizes related to democratic attitudes and values of school administrators, teachers, preservice teachers, and students. In line with this aim, the problem in the study comprised determining the perceptions related to democratic attitudes and values among school administrators, teachers, preservice teachers, and students.

2. Methodology

2.1. Research Model

In this study, the meta-analysis method, one of the methods for synthesizing research results, was used. Meta-analysis is a method that systematically analyzes and synthesizes data from quantitative studies which were independently conducted on the same topic. The group comparison meta-analysis method of group differences was used for the analysis of the data (Card, 2012; Cumming, 2012). In a meta-analysis study, singular and independent quantitative studies about the same research question and topic are chosen according to inclusion criteria. Data obtained from these studies is synthesized using advanced statistical methods to determine and interpret effect sizes (Dinçer, 2014; Ellis, 2012). The aim of meta-analysis is to compare quantitative data obtained from empirical studies performed about the same topic in different places and times, combine with appropriate methods, increase sample numbers and thus lower the confidence interval for general outcomes that can be obtained from the study results to achieve a synthesis with the least rate of errors (Cumming, 2012; Hartung, Knapp & Sinha, 2008). The meta-analysis process stages are shown in Figure 1 (Dinçer, 2014).

![Figure 1. Process stages in the meta-analysis method](image)

2.2. Data Collection Tools and Procedure

The primary data source and scope in this study comprised master’s and doctoral theses and research articles about the topic of democratic attitudes and values completed in Turkey. To retrieve these studies, Web of Science, ERIC, ULAKBIM, EBSCOhost, Google Scholar and the National Thesis Center (Ulusal Tez Merkezi) were screened with the English and Turkish keywords of “democratic attitude/demokratik tutum,” “democratic value/demokratik değer,” “school administrators/okul yöneticileri,” “teachers/öğretmenler,” “preservice teachers/öğretmen adayları,” and “student/öğrenci.” After screening, 101 studies abiding by the
inclusion criteria were determined among 127 studies. The inclusion and exclusion criteria used when selecting studies to be included in the research are given in Table 1.

**Table 1. Inclusion and exclusion criteria for the studies**

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sources of published or unpublished studies:</td>
<td>1. Abstracts, proceedings books, editor comments, interviews, advertisements, news, bulletins, and reports were excluded.</td>
</tr>
<tr>
<td>Master’s and doctoral theses and published research articles in the field were included.</td>
<td>2. Studies not meeting dependent and independent variable criteria were excluded.</td>
</tr>
<tr>
<td>2. Suitability of dependent and independent variables in studies for meta-analysis:</td>
<td>3. Studies with sample groups from abroad or not involving the research topic if completed in Turkey were excluded.</td>
</tr>
<tr>
<td>In order to obtain effect size in meta-analysis studies, care was taken that the studies were empirical and revealed the democratic attitudes and values of school administrators, teachers, preservice teachers and students.</td>
<td>4. Studies without the necessary statistical data for meta-analysis and studies only including qualitative data were excluded.</td>
</tr>
<tr>
<td>3. Sample group: Studies completed in Turkey involving the research topic (school administrators, teachers, preservice teachers, and students).</td>
<td>5. As there were no studies documented before 2003, they were considered to be excluded.</td>
</tr>
<tr>
<td>4. Inclusion of quantitative data required for meta-analysis: Care was taken to include quantitative data (e.g., mean, standard deviation, sample number, p-value) in order to calculate the effect size required for meta-analysis studies.</td>
<td>6. Studies in languages other than Turkish and English were excluded.</td>
</tr>
<tr>
<td>5. Care was taken to include studies performed in Turkey from 2003 to 2020.</td>
<td></td>
</tr>
<tr>
<td>6. Studies in Turkish and English languages with samples in Turkey were included.</td>
<td></td>
</tr>
</tbody>
</table>

According to the inclusion/exclusion criteria mentioned above, the process of determining studies to be included within the scope of meta-analysis is given in Table 2.

**Table 2. Determination of studies included within the scope of meta-analysis**

<table>
<thead>
<tr>
<th>1. Number of studies determined in the context of key words</th>
<th>2. Number of studies excluded by the exclusion criteria</th>
<th>3. Number of studies abiding by the inclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>127 studies (11 doctoral theses, 57 master’s theses, 59 articles)</td>
<td>26 studies (3 doctoral, 10 master’s, 13 articles)</td>
<td>101 studies (8 doctoral theses, 47 master’s theses, 46 articles)</td>
</tr>
</tbody>
</table>

**Reporting**

The reporting for this study was performed following the “Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA)” guidelines, a protocol used for systematic reviews and meta-analyses (Moher, Liberati, Tetzlaff & Altman, 2009). The PRISMA flow chart for systematic reviews and meta-analyses is shown in Figure 2 (Aşık & Özên, 2019).
Research reliability: For the reliability of meta-analysis study results, the reliability between coders during the coding of studies is important. With this aim, a coding protocol and form was created including the study identity, content, and data. Data from studies to be included were separately coded with the coding protocol by at least two coders. After the coding procedure, the interrater reliability was found using Cohen’s kappa (Lipsey & Wilson, 2001) statistic, and the reliability was found to be 0.95. This result shows perfect compatibility between coders (Card, 2012).

Research validity: Screening using all databases in order to reach all studies abiding by the meta-analysis inclusion criteria and inclusion of all studies is an indicator of the research validity (Petticrew & Roberts, 2006). Validity can be said to be provided in the context of accessing all studies as a result of the screening process. In this context, each of the 101 studies included in the meta-analysis was investigated in detail, and the validity and reliability of data collection tools used in the research was confirmed. For this reason, this meta-analysis can be said to be valid.

2.4. Data Analysis
The software CMA Ver. 2. [Comprehensive Meta-Analysis] was used for statistical calculations in this study. In this meta-analysis study, the random effects model was used to calculate the general effect size. The group comparison method from the group comparison meta-analysis methods was used for data analysis. The effect sizes for perceptions related to democratic attitudes and values of school administrators, teachers, students, and preservice teachers were compared (Bakioglu & Özcan, 2016).

2.5. Ethical aspects
Ethics committee approval was not required since this research was a meta-analysis study.

3. Findings
Findings obtained from the research within the scope of meta-analysis studies (publication bias, forest plot, random effects model, and moderator analysis) are presented in this section.
Publication Bias

In this study, the funnel plot, Orwin’s fail-safe N, Duval and Tweedie’s trim and fill method, Egger test, and Kendall’s tau coefficient were employed to determine whether publication bias was present or not (Borenstein, Hedges, Higgins, & Rothstein, 2009; Cooper, 2009). The majority of the 101 studies included in the research were located in the upper section of the graph and close to the combined effect size (Figure 3). In this sense, the funnel plot did not detect publication bias regarding the studies included in the research (Borenstein et al., 2009).

![Funnel Plot of Standard Error by Mean](image)

Figure 3. Funnel plot

The test results for publication bias of the studies included in the meta-analysis are given in Table 3. Orwin’s fail-safe N was calculated to test publication bias. Orwin’s fail-safe N calculates the number of studies that may be missing from a meta-analysis (Borenstein et al., 2009, 285). As a result of this analysis, Orwin’s fail-safe N was calculated as 1173. For the mean effect size found with the meta-analysis results of 41.46 at 0.01 level (trivial), the number of studies required in order to reach an effect size of nearly zero is 1173. The 101 studies selected according to the inclusion criteria were all studies carried out relevant to this research question in Turkey. As it is not possible to access 1072 studies apart from these, this is accepted as another indicator that there is no publication bias in this meta-analysis.

Table 3. Publication bias test results

<table>
<thead>
<tr>
<th>Number of included studies</th>
<th>Orwin’s protected N number</th>
<th>Duval and Tweedie’s trim and fill method</th>
<th>Kendall’s Tau coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>1173</td>
<td>Trim studies</td>
<td>SOF observed (filled)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
<td>44.44 (47.53)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P=0.28</td>
</tr>
</tbody>
</table>

According to the result of Duval and Tweedie’s trim and fill method, when 48 similar studies are included in the research, the mean effect size for the meta-analysis of 41.46 changes to 44.44. As this variation is at an insignificant level, the reported effect size is accepted as reliable. Another method of Kendall’s tau coefficient was 24 and p=0.28; in this situation, the p value not creating a significant difference, in other words being larger than 0.05, meets expectations and reveals that there is no publication bias statistically (Table 3).

Uncombined findings for effect size analysis for democratic attitudes and values of school administrators (SA), teachers (T), preservice teachers (PT) and students (S)

The forest plot for effect sizes, standard error, and upper and lower limits of 95% confidence intervals related to the sample groups included within the scope of the research is given in Figure 3.
When Figure 3 is investigated, it appears that there were significant differences between the opinions of SA, T, PT and S according to the random effects model. There were statistically significant differences (p<0.05) for 101 studies.

**Combined findings according to fixed and random effects models for effect sizes and heterogeneity test results**

The combined mean effect size (without removing outliers) according to the fixed and random effects model for the effect size of perceptions related to democratic attitudes and values of SA, T, PT and S, standard error and upper and lower limits for 95% confidence interval are given in Table 4.
Table 4. Combined findings according to fixed and random effects model for effect sizes and heterogeneity test results

<table>
<thead>
<tr>
<th>Model/ subdimension</th>
<th>Number of studies</th>
<th>Effect size and 95% confidence interval</th>
<th>Homogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Random effects</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effect size</td>
<td>Standard error</td>
</tr>
<tr>
<td>School Administrators</td>
<td>15</td>
<td>36.66</td>
<td>0.82</td>
</tr>
<tr>
<td>Teachers</td>
<td>38</td>
<td>47.86</td>
<td>1.08</td>
</tr>
<tr>
<td>Preservice Teachers</td>
<td>36</td>
<td>51.73</td>
<td>1.77</td>
</tr>
<tr>
<td>Students</td>
<td>12</td>
<td>30.45</td>
<td>1.41</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>41.14</td>
<td>0.56</td>
</tr>
</tbody>
</table>

According to the random effects model for effect size values from studies included in the research related to the SA, T, PT and S dimensions, the mean effect size value was 41.14, the mean effect size standard error was 0.56, and the mean effect size confidence interval upper limit was 42.25 while the lower limit was 40.04. According to the random effects model, perceptions related to democratic attitudes and values of participants appeared to have high levels of total effect size. When assessing the effect size, if $d$ is between 0.20-0.50, the effect size is small; if it is between 0.50-0.80, it is moderate; and if it is greater than 0.80, it is large effect size in Cohen’s classification (Cohen, 1988). In this study, the effect size value was between 0.50-0.80, which indicates a large level of effect size according to Cohen’s classification. Considering the classification of Thalheimer & Cook (2002), - 0.15 < $d$ < 0.15 is insignificant, 0.15 < $d$ < 0.40 is low, 0.40 < $d$ < 0.75 is moderate, 0.75 < $d$ < 1.10 is high, 1.10 < $d$ < 1.45 is very high, and 1.45 < $d$ is perfect level of effect size. With regard to this classification, there appears to be a high level of differences. When statistical significance is calculated according to the Z test, $Z=73.01$ was found, which signifies statistical significance ($p=0.00$).

Based on the findings, the perceptions related to democratic attitudes and values of participants were ranked from low to high for S ($d=30.45$), SA ($d=38.66$), T ($d=47.86$), and PT ($d=51.73$). There was a significant difference ($p=0.00$) present between the opinions of these participants.

**Homogeneity Tests with Q and F statistics**

Another name for the homogeneity test is the Q-statistic, and $Q=140.153$ was calculated. From the chi-square table, the three degrees of freedom value at 95% significance level was found to be 0.35. The Q-statistic value ($Q=140.153$) exceeds the critical value for three degrees of freedom and chi-square distribution ($\chi^2(0.95)=0.35$), so the hypothesis of the absence of homogeneity for effect size distribution is rejected for the fixed effects model. In other words, it was determined that the effect size distribution had heterogenic properties according to the random effects model.

Developed as a complement to the Q statistic, F reveals clearer results related to heterogeneity. The F shows the total variance rate related to effect size. Contrary to the Q statistic, the F statistic is not affected by the number of studies. For the interpretation of F, 25% is low-level heterogeneity, 50% is moderate-level heterogeneity, and 75% shows a high level of heterogeneity (Cooper et al., 2009). The results of homogeneity tests in the context of participant perceptions (Q and F) found high level of heterogeneity between studies. Moderator analysis was performed to determine possible causes of this heterogeneity.

**Moderator analysis results according to participant perceptions**

With the aim of revealing the causes of heterogeneous perceptions among participants, the moderator analysis results are demonstrated in Table 5.
As a result of the moderator analysis, the effect sizes of studies differed according to publication type ($p=0.00$), teaching level ($p=0.00$), gender of the researcher ($p=0.00$), and region of the research ($p=0.00$). In terms of teaching level, the results for studies dealing with primary education and higher education appeared to have higher rates compared to other levels. It appeared that in studies performed at preschool and secondary education levels, participants had lower perceptions related to democratic attitudes and values. Regarding the region of the research, participants in studies conducted in the East Anatolia region appeared to have perceptions related to democratic attitudes and values at higher rates compared to other regions. On the other hand, in studies performed with samples from the Marmara region, it is noteworthy that participants had lower perceptions related to democratic attitudes and values compared to other regions. Participants in studies published as master’s theses and research articles appeared to have a higher effect level for perceptions of democratic attitudes and values. According to the gender of researchers ($p=0.00$), the effect sizes of studies were determined to differ. It is interesting that in studies where the researcher was female, the perceptions of democratic attitudes and values of participants were lower.

### Table 5. Categoric moderator results related to participant perceptions

<table>
<thead>
<tr>
<th>Moderator</th>
<th>k</th>
<th>d</th>
<th>SE</th>
<th>95% CI</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s thesis</td>
<td>47</td>
<td>42.32</td>
<td>1.09</td>
<td>[40.17; 44.46]</td>
<td>50.80</td>
</tr>
<tr>
<td>Doctoral thesis</td>
<td>8</td>
<td>28.72</td>
<td>2.89</td>
<td>[23.04; 34.40]</td>
<td></td>
</tr>
<tr>
<td>Article</td>
<td>46</td>
<td>53.90</td>
<td>1.97</td>
<td>[49.22; 56.59]</td>
<td></td>
</tr>
<tr>
<td>Teaching level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3013.33</td>
</tr>
<tr>
<td>Preschool</td>
<td>1</td>
<td>4.46</td>
<td>0.03</td>
<td>[4.40; 4.52]</td>
<td></td>
</tr>
<tr>
<td>Primary education</td>
<td>44</td>
<td>52.66</td>
<td>1.08</td>
<td>[50.53; 54.78]</td>
<td></td>
</tr>
<tr>
<td>Secondary education</td>
<td>11</td>
<td>24.86</td>
<td>2.15</td>
<td>[20.63; 29.09]</td>
<td></td>
</tr>
<tr>
<td>Higher education</td>
<td>35</td>
<td>53.12</td>
<td>1.80</td>
<td>[49.58; 56.66]</td>
<td></td>
</tr>
<tr>
<td>All levels</td>
<td>10</td>
<td>20.12</td>
<td>1.02</td>
<td>[18.10; 22.13]</td>
<td></td>
</tr>
<tr>
<td>Region of the research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>486.80</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>4</td>
<td>43.67</td>
<td>12.18</td>
<td>[35.59; 54.75]</td>
<td></td>
</tr>
<tr>
<td>Eastern Anatolia</td>
<td>14</td>
<td>65.73</td>
<td>22.95</td>
<td>[60.02; 71.44]</td>
<td></td>
</tr>
<tr>
<td>Aegean</td>
<td>5</td>
<td>45.90</td>
<td>23.64</td>
<td>[17.91; 73.88]</td>
<td></td>
</tr>
<tr>
<td>Southeast Anatolia</td>
<td>16</td>
<td>40.84</td>
<td>0.02</td>
<td>[36.84; 44.85]</td>
<td></td>
</tr>
<tr>
<td>Central Anatolia</td>
<td>21</td>
<td>54.92</td>
<td>0.03</td>
<td>[47.97; 61.66]</td>
<td></td>
</tr>
<tr>
<td>Black Sea</td>
<td>6</td>
<td>44.95</td>
<td>23.64</td>
<td>[38.54; 51.36]</td>
<td></td>
</tr>
<tr>
<td>Marmara</td>
<td>28</td>
<td>24.05</td>
<td>42.18</td>
<td>[40.26; 44.10]</td>
<td></td>
</tr>
<tr>
<td>All regions</td>
<td>7</td>
<td>25.09</td>
<td>12.03</td>
<td>[9.32; 14.75]</td>
<td></td>
</tr>
<tr>
<td>Gender of the researcher</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>141.12</td>
</tr>
<tr>
<td>Male</td>
<td>47</td>
<td>52.78</td>
<td>0.92</td>
<td>[50.97; 54.58]</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>42</td>
<td>35.49</td>
<td>1.13</td>
<td>[33.27; 37.70]</td>
<td></td>
</tr>
<tr>
<td>Male+Female</td>
<td>12</td>
<td>55.92</td>
<td>13.44</td>
<td>[29.58; 82.26]</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** $k =$ number of studies, $d =$ Cohen’s $d$ (SOE), $SE =$Standard error, $CI =$confidence interval, $Q =$heterogeneity between studies. Comparative analysis was performed for studies with subgroup numbers of 2 or more. "$p<.05$"

As a result of the moderator analysis, the effect sizes of studies differed according to publication type ($p=0.00$), teaching level ($p=0.00$), gender of the researcher ($p=0.00$), and region of the research ($p=0.00$). In terms of teaching level, the results for studies dealing with primary education and higher education appeared to have higher rates compared to other levels. It appeared that in studies performed at preschool and secondary education levels, participants had lower perceptions related to democratic attitudes and values. Regarding the region of the research, participants in studies conducted in the East Anatolia region appeared to have perceptions related to democratic attitudes and values at higher rates compared to other regions. On the other hand, in studies performed with samples from the Marmara region, it is noteworthy that participants had lower perceptions related to democratic attitudes and values compared to other regions. Participants in studies published as master’s theses and research articles appeared to have a higher effect level for perceptions of democratic attitudes and values. According to the gender of researchers ($p=0.00$), the effect sizes of studies were determined to differ. It is interesting that in studies where the researcher was female, the perceptions of democratic attitudes and values of participants were lower.

![Figure 4. Meta-regression results for effect sizes based on years of the research](image)
As seen in Figure 4, there appears to be a decreasing trend in perceptions related to democratic attitudes and values of participants throughout the years in terms of effect size in the research. According to meta-regression results, a statistically significant difference was found between the year of study variable with the effect size (B=-74.66; Z=-161.66; p=0.00).

4. Discussion and Conclusion

In this study, four effect sizes were calculated for 101 studies comprising a sample of 33,774 people. According to research results, the random effects model for opinions about democratic attitudes and values of SA, T, PT and S had high levels of effect size ($d=41.14; [40.04; 42.25]$). These meta-analysis results show that teachers and preservice teachers have higher perceptions of democratic attitudes and values than school administrators and especially students. Students were observed to have the lowest level of democratic attitude and value perceptions. It is known that teachers and administrators generally adopt an authoritarian attitude in school environments in Turkey (Okutan, 2010). These meta-analysis results are significant considering that school administrators adopt traditional and bureaucratic administration approaches. However, it is thought-provoking that students have low democratic attitude and value perceptions. Democratic attitudes and values comprise the basis of trust, cooperation, responsibility and tolerance (Cankaya, 2011). School administrators and teachers should be role models to give students responsibility in decision-making and implementation processes and show respect for their opinions. There can be said to be inadequacies about this topic. The democracy education and school assembly directives were abolished by the Ministry of National Education in 2019 and instead, a project and practice based on macro-scale participation and democracy was implemented.

This meta-analysis study found that primary education and higher education levels had higher perceptions of democratic attitude and values than preschool and secondary education levels. In the literature, there are research results revealing differences according to democratic attitudes based on the education level of learning or employment. Teachers employed in primary schools are known to have higher democratic attitude and value perceptions compared to teachers employed in middle schools and high schools (Çakmur, 2007; Gozutok, 1995; Korkmaz, 2013). The curriculum applied and the class conditions differ according to education level. At the primary education level, there are mandatory lessons supporting democratic attitudes. Additionally, the content of lessons such as social science, life science and Turkish include acquirements that support democratic attitudes and values. Additionally, as it is known, at the primary school level in Turkey, teachers work with the same class in every lesson and for long durations (four years). In this way, teachers have the opportunity to recognize the personality traits and individual differences of students. In this situation, it may be considered that more effective results are obtained for acquiring democratic attitudes and values. In the teaching process, there is an increased possibility of including activities to support student participation, active learning methods and upper-level thinking skills that will strengthen democratic attitudes and values.

This meta-analysis study observed higher democratic attitude and value perceptions of participants in the research performed in the East Anatolia region compared to participants from other regions in terms of the region of the research moderator. Interestingly, the lowest democratic attitude and value perceptions were obtained from studies with samples from the Marmara region with high socioeconomic status. Contrarily, it is expected that as the socioeconomic level increases, democratic attitude and value perceptions will also increase. When the general trends in Turkey are assessed, individuals living in regions and cities with high developmental levels are known to have more democratic attitudes and values than those living in regions with low socioeconomic levels (Bingol, 2000). In the context of this meta-analysis study, the higher democratic attitudes and values perceptions of school community members (school administrators, teachers, students, and preservice teachers) in the East Anatolia region require detailed evaluation and discussion in sociological terms. The Marmara region is a cosmopolitan region with excessive migration and difficult as well as highly competitive working and life conditions, which may have caused the emergence of low democratic attitude and value perceptions. There may be many different variables playing a role in this finding.
Participants in studies published as master’s theses and articles appeared to have a higher effect level for democratic attitude and value perceptions compared to doctoral thesis studies. This situation may be explained by doctoral theses being completed over longer periods with more comprehensive scope compared to master’s theses and articles in addition to the inclusion of five lecture staff in the doctoral process. This comprehensive assessment and meticulous working process may lead to consideration of a range of differences occurring in results obtained from doctoral thesis publications.

Democratic attitude and value perceptions in studies performed by female researchers were lower compared to studies performed by male researchers. There are studies revealing that women have higher rates of democratic attitudes compared to men (Akin & Ozdemir, 2009; Arslan & Calmasur, 2017; Gomleksiz & Cetintas, 2011; Karatekin et al., 2013; Kaya, 2013; Ozdas et al., 2014; Van Engen & Willemsen, 2004; Yasar Ekici, 2014; Yigit & Colak, 2010). However, in this meta-analysis research, lower democratic attitude and value perceptions were encountered in studies performed by women. This situation appears to be associated with female researchers not being perceived as democratic by society or not facing democratic attitudes in social life. In this study, it appears the gender of the researcher affected the research results. Whether the gender of a researcher has the potential to affect research results based on personal traits like attitude may be further assessed as it has the quality of inspiring new research. As there are no scientific research findings related to this question and this outcome, it is not possible to interpret or debate the causes.

Another noteworthy result of the research is the declining trend in democratic attitude and value perceptions of participants since 2013. The political and economic events and crises experienced in Turkey in 2013 and later years, lack of participation-based educational policy decisions and implementations (Aytac, 2020; Karip, 2019), and inability to fully internalize lessons and topics dealing with democracy in schools (Izgar, 2017, Okutan, 2010) may have caused a decrease in democratic attitude and value perceptions. The fall in democratic attitude and value-based perceptions and practices of school administrators and teachers in the context of school and class management in recent years (Gunes, 2019, Ozbek, 2016) may be assessed as an indicator of this result.

Harber (2002) emphasized that democratic attitudes and values can be taught and are not hereditary. For this reason, it appears necessary that sensitivity should be shown from the first years of education towards democratic educational environments and a democratic lifestyle for the future of society, and all stakeholders in education should display democratic attitudes and behavior consistently.

5. Recommendations

The results of the research show that students attending preschool and secondary education have lower levels of democratic attitudes compared to other participants. For this reason, lessons should ensure that students can express their own opinions and thoughts and participate in decision-making processes by encouraging them with teaching strategies, methods and techniques which provide democratic participation. Students should be supported to acquire a feeling of responsibility by developing self-management and self-regulation skills. In Turkey, studies should be performed to develop the democratic attitude and value perceptions of all stakeholders in education. To develop the democratic attitude and value perceptions of education stakeholders, especially students, teachers and school administrators, there should be a move away from traditional education approaches and school-based projects, and activities and international cooperative studies should be conducted. During this process, digital and social media channels should be used effectively. Additionally, democratic attitudes and values should be acquired not just in class, but also at home. It is important to inform parents about this process. The democratic attitude and value perceptions of parents, some of the most important stakeholders in education, were not included in this study. Future research is recommended to provide more detail and expand the results by including different participants and different moderators. In the context of the results of this meta-analysis, it is recommended to perform qualitative and quantitative studies to determine which factors affect the low democratic attitude and value perceptions of students and school administrators in particular.
6. References

(The symbol * refers to the studies included in the meta-analysis).


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