

Research Article

A scale development study on democratic attitude among third and fourth grade students

Cüneyt Akar¹ and Ufuk Uluçınar²

¹Uşak University, Faculty of Education, Türkiye (ORCID: 0000-0001-6028-2036)

²Uşak University, Faculty of Education, Türkiye (ORCID: 0000-0001-9167-5457)

This study aims to develop an instrument that measures democratic attitudes levels in primary school students in third and fourth grades. This study involved 591 students (302 for exploratory factor analysis, 289 for confirmatory factor analysis) enrolled in the 3rd and 4th grades. A literature review was conducted to prepare the scale items, and a pool of 32 items was created. A face and content validity assessment was performed by taking the opinions of four educators who are experts in classroom education and social studies education. A construct validity test was conducted on 302 students. The exploratory factor analysis resulted in a scale with three dimensions and 15 items. Confirmatory factor analysis was conducted with a group of 289 students using the scale. Based on the confirmatory factor analysis, the 15-item and 3-dimensional structure of the scale was compatible with the collected data. According to the results, the reliability coefficient of the scale was .85. Thus, the scale can be considered a valid and reliable tool for measuring democratic attitudes among primary school students in third and fourth grades.

Keywords: Democratic attitude; Primary school; Scale development

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1. Introduction

The Turkish Language Association [TLA] explains democracy as a form of government based on the people's sovereignty (TLA, 2005). Democracy, established on equality and participation, is today's most accepted state system (Erkal-Coşan & Altın-Gülova, 2014). As a democracy-adopting state, one of the main goals of Turkey is to raise citizens who understand and embrace democracy as a way of life. This is why democratic education has been a primary objective of national education. A democratic society can only exist with a democratic education (Edwards, 2010; Wang, 2018). In terms of democratic values, education is most important to raise people who assimilate knowledge, skills, and values necessary for democracy, who are aware of their political duties and responsibilities, who make democracy a way of life, who are able to think about the consequences of their actions, and who actively participate in the development of society (Cohen & Fung, 2023; Sari & Sadik, 2011). As a result of acquiring democratic values and making these values a way of life, people will be able to make a positive contribution to the society in addition to being peaceful and happy (Toomey, 2010). As a result, democratic education can be defined as all activities aimed

Address of Corresponding Author

Ufuk Uluçınar, PhD, Uşak University, Faculty of Education, Division of Curriculum and Instruction, 64000, Uşak, Türkiye.

✉ ufuk.ulucinar@usak.edu.tr

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at adapting democracy's fundamental values, such as equality, participation, tolerance, respect for human rights, trust, and cooperation, to the behavior of people (Alexander, 2023; Biamba et al., 2021; Yeşil, 2002). The primary goal of democratic education, on the other hand, is to produce "effective citizens" who know, adopt, respect, and defend their individual rights and freedoms.

The dimensions of democracy include knowledge, skills, attitudes, and values. With a constructivist understanding of learning, rather than students memorizing information, much more emphasis is being placed on developing students' attitudes and values than on memorizing information. Values and attitudes, however, are qualities that require a process to develop (Bacanlı, 2000). In this respect, lifelong education is needed in order to spread democratic values, attitudes, and behaviors and to make democracy common (Koç, 2008).

A majority of democratic societies aim to educate children so that they develop attitudes, values, beliefs, and knowledge (Dzavo et al., 2021; Hakim, 2011; Samancı, 2010; Webb, 1971). Xu (2009) drew attention to the qualities of democracy, including knowledge, attitude, and skill in teaching democracy. He stated that knowledge of democracy is an essential part of the democratic quality. Democracies are practiced by learning specific knowledge of them. Democracies are also characterized by the ability to live a democratic lifestyle on a day-to-day basis. Students apply the skills of self-expression, communication, adaptation, and advocacy in line with their political tendencies and competencies. For democracy to work, it is also essential to have a democratic attitude. In a relatively democratic society, people have a habit of thinking and acting in a democratic manner. According to Shi (2007), democratic attitudes include attitudes toward democracy and attitudes in favor of democracy. While the attitude towards democracy expresses individuals' value perception and emotional tendency towards democracy, the attitude in favour of democracy mainly expresses people's love or hate, support or opposition. People can decide their willingness and tendency to participate in democracy when they have a democratic attitude (Xu, 2009). The democratic attitude of an individual, however, is defined as the ability to adopt values such as respecting the rights of the individual, respecting the individual's personality, ensuring justice, taking responsibility, promoting equality, showing open-mindedness, honesty, tolerance, cooperation, valuing, guiding, being benevolent and making it a behaviour, being ready and taking a position (Selçioğlu-Demirsöz, 2010).

Primary schools have an active role in teaching students' democratic attitudes and values (Dzavo et al., 2021; Strijbos & Engels, 2023; Yeşil, 2002). In Turkey, life studies in the first three years of primary school and social studies lesson in the 4th grade teach concepts, values, and principles of democracy (MoNE, 2018a, 2018b). This study seeks to create a scale to respond to the question of how democratic primary school students are by measuring of democratic qualities rather than teaching democracy in primary school.

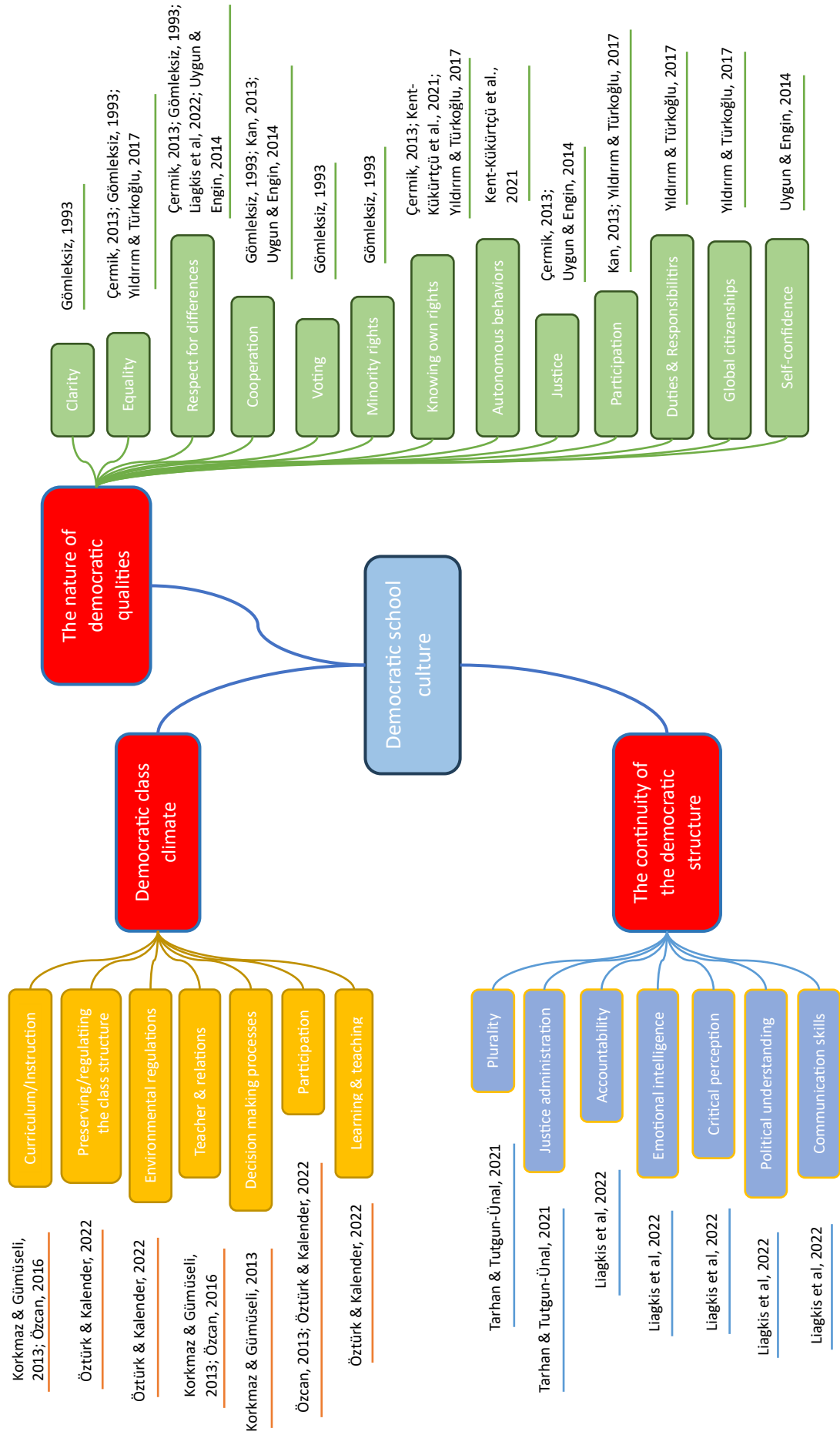
1.1. A conceptual Framework for Scale Development Studies on Democratic Characteristics

There are scale development studies on democratic attitudes, skills, or behaviours. These studies can be structurally classified into three different groups: (a) the structure of the democratic class climate, (b) preserving and maintaining the democratic structure, and (c) the nature of democratic values and attitudes. Figure 1 presents a conceptual framework on democratic qualities from scale development studies.

1.1.1. The structure of the democratic class climate

The democratic classroom climate in schools has an essential effect on the teaching and internalization of democratic attitudes (Perliger et al., 2006). The democratic climate in the classroom should be questioned. A number of studies on democratic qualities have indicated that a democratic classroom climate can be measured in terms of protecting and supporting classroom structures, curriculum-instruction, teacher relations, participation, environmental regulations, and decision-making processes (Korkmaz & Gümüşeli, 2013; Mellora & Kennedy, 2003; Özcan, 2016; Öztürk & Kalender, 2022).

Figure 1
A conceptual framework on democratic qualities from scale development studies



1.1.2. Preserving and maintaining the democratic structure

The democratic class climate can be preserved and sustained through pluralism, justice administration, participation, accountability, emotional intelligence, critical perception, political understanding, and communication skills (Liagkis et al., 2022; Tarhan & Tutgun-Ünal, 2021).

1.1.3. The nature of democratic values and attitudes

Within the classification, scale development studies primarily focus on the nature and characteristics of democratic values and attitudes. Seeking rights, respect for differences, justice, and equality (Çermik, 2013; Kaya, 2021), the right to education, cooperation and freedom (Selvi, 2006), cooperation in the classroom, participation in activities and group work (Kan, 2013) represent democratic behaviors in the classroom. Gömleksiz's (1993) study, one of the premier studies on democratic values, discovered dimensions such as being scientific, openness, equality, respect for ideas, participating, working together, voting and having minority rights in the classroom environment. Likewise, Liagkis et al., (2022) highlighted six dimensions of democracy skills: respect for others, intercultural awareness, communication skills, emotional intelligence, critical perception, and political understanding in the scale they developed based on the European Democracy Culture Competence framework.

Based on high school students' perceptions, the scale development study by Özcan (2016) also focuses on participation, program, and relationships regarding the nature of the school climate. Cooperation, self-confidence, respect for differences, and fairness are among the democratic values for lower secondary school students (Uygun & Engin, 2014). According to Akbaş (2004), 8th-grade secondary school students develop democratic values such as respect, cooperation, kindness, and tolerance. In addition, Yıldırım and Türkoğlu's (2017) scale development study revealed democracy culture, democratic participation, duties and responsibilities, democratic rights and equality, citizenship values, and global citizenship attitudes in the context of democratic citizenship attitudes for secondary school students. Zodikoff (1967) developed a social attitude scale that clarified the values of democracy, group solidarity, empathy, independent thinking, and social responsibility for students in 4th and 6th grades.

Kent-Kükürtcü et al. (2021) discovered that preschool children knew their rights, exhibited autonomous behaviors, and demonstrated democratic behaviors. There was only one study that investigated the development of equality, human rights, national sovereignty, and freedom among students in primary school (Karakuş, 2017). Finally, a one-dimensional scale development study is only found in Erbil and Kocabaş (2017) with respect to democratic attitudes.

Rather than providing a systematic, detailed analysis of democratic attitudes and values explored in scale development studies, the aim of this study is to provide a conceptual framework for this research by looking at democratic attitudes and values explored in previous scale development studies. Moreover, it aims to lay the groundwork for developing the democratic attitude scale, especially for 3rd and 4th-grade students at the primary school level. As can be seen, Karakuş's (2017) democratic values and Erbil and Kocabaş's (2017) democratic attitude scales have been present in the literature. This gap in the literature will be filled by the current study's democratic attitude scale for 3rd and 4th-grade students. Accordingly, this research aims to develop a valid and reliable scale to determine the democratic attitude levels of primary school 3rd and 4th-grade students.

2. Method

2.1. Research Design

Aiming to develop a democratic attitude scale for primary school students, the present study was designed in the survey model. By examining a sample of a group of individuals, this model can identify inclinations, attitudes, and ideas (Creswell, 2014). In accordance with the model, the steps to be followed in the scale development process were explained in detail.

2.2. Participants

The research was conducted in primary schools in a city located in the inner Aegean region. Based on socioeconomic status, six primary schools were identified with the support of the Provincial Directorate of National Education. An exploratory factor analysis [EFA] was conducted on three schools, while a confirmatory factor analysis was conducted on the remaining three. An EFA was performed with 302 students and a confirmatory factor analysis [CFA] was conducted with 289 students. The study involved 501 students in total.

Table 1

Demographical characteristics of the students in the exploratory factor analysis

Variable	Frequency	Percentage
Gender		
Female	146	48.3
Male	156	51.7
Class		
3 rd grade	111	36.8
4 th grade	191	63.2
Total	302	100

The number of students participating in the research for EFA is 302. Of these students, 146 (48.3%) were females, and 156 (51.7%) were males. There were 111 students in the 3rd grade (36.8%), and 191 in the 4th grade (63.2%).

Table 2

Demographical characteristics of the students in the confirmatory factor analysis

Variable	Frequency	Percentage
Gender		
Female	132	45.7
Male	157	54.3
Class		
3 rd grade	152	52.6
4 th grade	137	47.4
Total	289	100

A total of 289 students, 132 (45.7) females and 157 (54.3) males participated in the study for confirmatory factor analysis. One hundred fifty-two students were 3rd-grade, and 137 were 4th-grade students.

2.3. Data Collection

2.3.1. Reviewing the literature and creating an item pool

At the beginning of the scale development process, the relevant literature was reviewed. Several statements concerning the democratic attitude were identified and listed. An examination of the scales associated with the democratic attitude was conducted. The researchers also added additional statements to the list that were not included in the original list, but that were viewed as necessary. In addition to this, life studies and social studies curricula were examined in order to identify whether or not the items on the list were appropriate for teaching in the 3rd and 4th grades of a primary school. There are a few items on the list that have not been included as learning objectives within the curricula related to democratic attitudes, so those items have been omitted. This method of creating an item pool resulted in a total of 32 items being included in the item pool.

2.3.2. Expert consultations

The draft item pool was reviewed by three different expert groups. The first group consisted of two experienced teachers with master's degrees in classroom education who teach 3rd and 4th

grades. Teachers first assessed whether the items were appropriate for 3rd and 4th-grade courses. They also examined whether the children understood the materials correctly based on their levels. The examinations resulted in the exclusion of one item and the editing of others.

The second group included two academicians who completed their doctorates in classroom education and taught life studies and social studies. A number of corrections were requested by experts in terms of scope and applicability of the scales.

Lastly, there were two academicians with studies on democratic attitudes who were members of the third group. Corrections and modifications were made to items. Thirteen statements were corrected, and one statement was excluded based on suggestions from all expert groups. There are a total of 31 statements on the scale, and it is rated from 1 to 4 on a 4-point scale. Students were asked to respond to each statement as "never" (1), "sometimes" (2), "often" (3), and "always" (4).

2.2.3. Pilot study

The pilot study involved 25 students and a teacher with a master's degree in classroom education and 20 years of teaching experience. Students were assessed on their understanding of the statements and their difficulty with certain statements, as well as their critical points in the scale instruction. The scale needed to be explained clearly and in detail before being applied during the pilot phase, with sample statements written on the board. Following the practitioner reading each item one by one and ensuring that each student understood it, it was decided to move on to the other statement and complete the scale in this way.

2.4. Data Analysis

The data were analyzed by using both exploratory and confirmatory factor analysis. Following the pilot, 302 students of the 3rd and 4th grades from three primary schools of lower, middle, and upper socioeconomic groups were evaluated using the 31-item scale prepared for EFA. In collaboration with the classroom teacher, the researchers made the program work. Classroom teachers and the school administration supported the implementation. Several examples were written on the classroom board before the application to show how the students would fill out the scale. Research was completed by the researchers, and the classroom teacher determined that the students understood and were ready to complete the application. Using the data collected for EFA, the 15-item scale was applied to 289 students in third and fourth grades who were similarly classified as lower, middle, and upper groups. The students were more able to fill out the 15-item scale determined for CFA.

3. Findings

This section presents the results of EFA, CFA and the reliability analysis of the scale.

3.1. Findings regarding Exploratory Factor Analysis

EFA was performed in order to ensure construct validity of the democratic attitude scale. A key aim of the EFA is to reduce many items in the draft scale to get hidden structures, thereby portraying and understanding their basic dimensions (Field, 2009).

In order to determine whether the data are suitable for factor analysis, the Kaiser-Meyer-Olkin sample adequacy coefficient and Bartlett Sphericity test should be calculated (Tabachnick & Fidell, 2013). In addition to showing how much variance is explained by the factors, the KMO value gives the sample adequacy measurement value. This study found that the KMO value was .83. According to Büyüköztürk (2011), when the KMO coefficient exceeds .70, EFA can be performed. The result of the Bartlett sphericity test, another parameter for the suitability of the data for factor analysis, was calculated [$\chi(289) = 818,203$; $p = 0.00$]. As recommended by Brace et al. (2003), the p -value for this test should be lower than .05. Therefore, both values suggest that factor analysis could be applied to the data.

Exploratory factor analysis was conducted using Varimax vertical rotation. Items below .45 were excluded from the analysis as factor load was restricted to .45. This resulted in 16 items being

removed from the scale. There were 15 items remaining in the scale after item extraction. Results of EFA indicate that the scale has three dimensions with eigenvalues greater than 1, representing 47.52% of its variance. Additionally, the scree plot displayed how many factors were included in the scale. The scree plot is presented in Figure 2.

Figure 1

The scree plot of the data

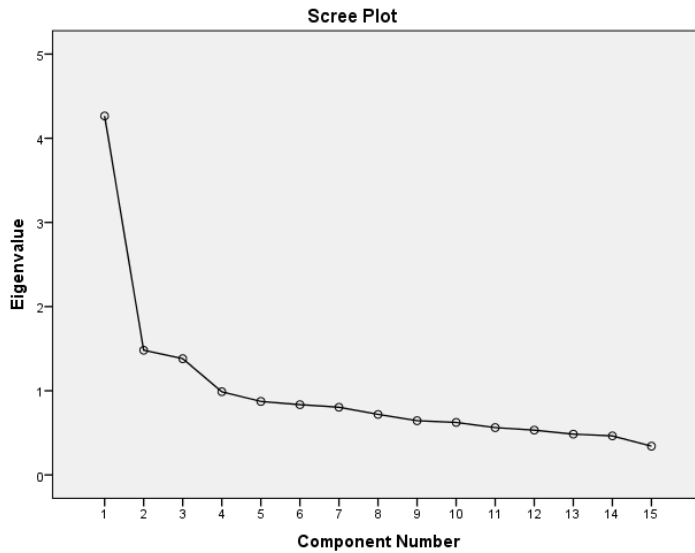


Figure 2 shows that the scale can be acceptable with three dimensions having eigenvalues above 1. The EFA results are presented in Table 3.

Table 3

Findings related to Exploratory Factor Analysis

Dimensions and items	Factors		
	1	2	3
Democratic participation			
15- I attend activities organized by the class or school voluntarily	.742		
16- I attend voluntarily in setting the classroom rules	.721		
23- I attend class discussions as a volunteer	.572		
27- I participate in class voting as a volunteer	.571		
31- I voluntarily attend the decisions taken by the class	.534		
Respect			
5- I respect my friends who have different characteristics (people with disabilities, people with poverty, etc.)		.800	
7- I respect friends who have opinions different from mine		.732	
8- I respect friends with different clothes		.621	
14- I respect friends with a different appearance		.482	
Equality/Freedom			
2- I believe that boys and girls have equal rights			.728
10- I believe that all people have the right to express their ideas freely.			.624
11- I believe that all people (e.g., rich and poor, strong and weak) have equal rights.			.557
18- I believe that friends from villages or from other regions have equal rights.			.518
24- I believe that all people have the right to make free decisions			.507
25- I believe that everyone is of equal worth.			.460
<i>Reliability: Cronbach Alpha</i> .81	.67	.69	.69
<i>The variance explained: % 47.52</i>	28.43	9.88	9.21

The statements with a factor loading less than .45 in the EFA were excluded from the analysis. EFA results explain that it consists of 3 dimensions representing 47.52% of the variance of the scale. The explained variance values are 28.43%, 9.88% and 9.21%, respectively for the dimensions. The factor loadings vary between .460 and .800. Taking the items included into consideration, the dimensions were named as (a) democratic participation, (b) respect and tolerance, and (c) equality and freedom, respectively. Table 4 presents the correlations among the dimensions.

Table 4

Descriptive statistics and correlation coefficients about the democratic attitude scale

	<i>N</i>	<i>Average</i>	<i>SD</i>	<i>P</i>	<i>R</i>	<i>EF</i>
Participation (P)	302	17.81	2.49	1		
Respect (R)	302	13.28	2.48	.444**	1	
Equality/Freedom (EF)	302	20.32	3.44	.425**	.461**	1

The binary correlations between dimensions are below .85 indicating no multi-collinearity problem (Litch, 1998). The findings show that the correlation coefficients are below this reference value.

3.2. Reliability Results for the Democratic Attitude Scale

The item total correlation coefficients and the dimensions' Cronbach alpha coefficients were calculated. These coefficients are depicted in the table below.

Table 5

Item total correlation coefficients and reliability coefficients

<i>Dimension</i>	<i>Item</i>	<i>Item-total correlation</i>	<i>Reliability coefficient</i>
Participation	15	.42	.69
	16	.44	
	23	.46	
	27	.43	
	31	.41	
Respect	5	.42	.67
	7	.53	
	8	.52	
	14	.36	
Equality/Freedom	2	.39	.67
	10	.36	
	11	.43	
	18	.42	
	24	.36	
	25	.42	
Overall			.81

As Table 5 suggests, the democratic attitude scale is reliable because it has item-total correlations over .25 and internal consistency coefficients over .60 for all dimensions (Field, 2009). The reliability coefficient of the whole scale was found to be .81.

3.3. Results on Confirmatory Factor Analysis

In order to determine whether the model tested in confirmatory factor analysis is compatible with the research data, some fit indices are referenced. The fit indices give a value for whether the tested model is acceptable. The research data for the indices is expected to be between the lower and upper values determined. Index values between these values show that the model is acceptable (Kline, 2011). It is seen that there is no consensus on which of the CFA compliance indices should be reported, except for the reporting of χ^2/df (İlhan & Çetin, 2014). Since chi-square significance

level is affected by sample size, it is recommended to use chi-square/degree of freedom (Şimşek, 2007). For other indices, McDonald and Ho (2002) recommended reporting CFI, GFI, NFI and NNFI (TLI) values, Garver and Mentzer (1999) suggested reporting RMSEA, CFI and NNFI (TLI) values, Brown (2006) recommended reporting RMSEA, SRMR, CFI and NNFI (TLI) values, and Iacobucci (2010) suggested reporting CFI and SRMR values. This study examined the indices of chi-square/sd, GFI, AGFI, IFI, TLI, CFI, RMR, and RMSEA.

3.3.1. Fit indices

The reference values and the fit indices in the measurement model are depicted in Table 6.

Table 6

Comparison of the measurement values founded in the study and the reference fit indices by Kline 2011)

	Measurement values	Excellent fit	Acceptable fit	Result
CMIN	157.959			
SD	87			
CMIN/ sd	1.816	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$	Excellent fit
GFI	.932	$0.95 \leq GFI \leq 1.00$	$0.90 \leq GFI \leq 0.95$	Acceptable fit
AGFI	.907	$0.90 \leq AGFI \leq 1.00$	$0.85 \leq AGFI \leq 0.90$	Excellent fit
IFI	.911	$0.95 \leq GFI \leq 1.00$	$0.90 \leq GFI \leq 0.95$	Excellent fit
NNFI (TLI)	.920	$0.95 \leq TLI \leq 1.00$	$0.90 \leq TLI \leq 0.95$	Acceptable fit
CFI	.909	$0.97 \leq CFI \leq 1.00$	$0.95 \leq CFI \leq 0.97$	Acceptable fit
RMR	0.33	$.005 > RMR$	$.06 \leq RMR \leq .08$	Excellent fit
RMSEA	.053	$0 \leq RMSEA \leq 0.05$	$0.05 \leq RMSEA \leq 0.08$	Excellent fit

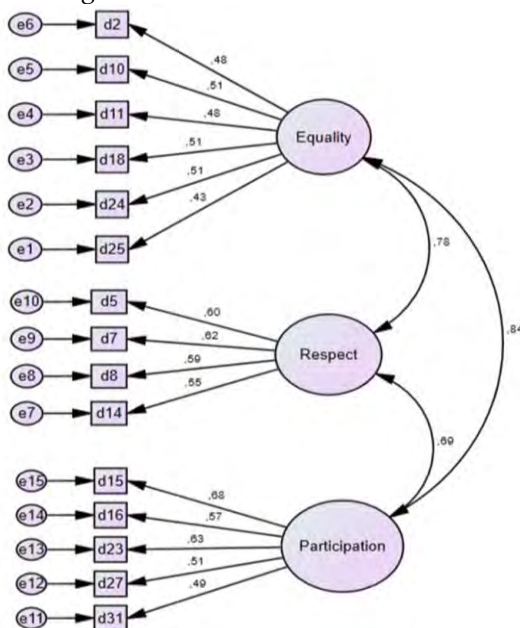
The fit index values obtained from CFA were calculated as $\chi^2/df = 1.816$, GFI=.932, AGFI=.907, IFI=.911, TLI=.920, CFI=.909, RMR= 0.33 and RMSEA=.053. Table 6 shows that the overall fit index of the tested model, χ^2/df , is in the excellent fit range. A value below 3 indicates an acceptable fit, and a value below 2 indicates a good fit (Bryne, 2010; Schermelleh-Engel et al., 2003). According to Cole (1987), the model's overall fit is excellent when the chi-square/df ratio is less than 2.

3.3.2. CFA diagram for the democratic attitude scale

Figure 2 shows the CFA diagram in measurement model for the scale.

Figure 2

CFA diagram in measurement model



As seen in Figure 2, the regression coefficients vary between .49 and .68 for Democratic Participation (DP), between .29 and .63 for Respect/Tolerance (RT), and between .44 and .51 for Equality/Freedom (EF).

4. Conclusion and Discussion

The purpose of the current study was to develop a democratic attitude scale for 3rd and 4th-grade primary school students. The results of EFA and CFA, which are accepted in scale development processes, showed that it was a valid scale (Büyüköztürk, 2011; Kline, 2011; Schermelleh-Engel et al., 2003). To sum up, the 15-item scale consists of three dimension as democratic participation (5 items), respect/tolerance (4 items), and equality/freedom (6 items). Moreover, the reliability coefficients of the dimensions obtained were .69, .67, and .67, respectively. The overall reliability coefficient of the scale is .81. These coefficients show that the scale has a reliable structure (Can, 2022; Field, 2009; Tabachnick & Fidell, 2013).

As previously mentioned, the dimensions of this scale are democratic participation, respect, and equality/freedom. Consistent with these dimensions, equality (Çermik, 2013; Gömleksiz, 1993; Karakuş, 2017; Yıldırım & Türkoğlu, 2017), respect for different ideas, respect for others and respect for differences (Çermik, 2013; Gömleksiz, 1993; Liagkis et al., 2022; Uygun & Engin, 2014), freedom (Karakuş, 2017) and autonomous behaviors associated with freedom (Kent-Kükürtçü et al., 2021) and democratic participation (Kan, 2013; Yıldırım & Türkoğlu, 2017) have been found as a dimension of democratic attitudes or values in many studies.

The democratic participation dimension (28.43%) explains a significant part of the variance value (47.43%) of the democratic attitude scale. This result shows that democratic participation is the most prominent and adopted democratic attitude in the perceptions of primary school students (Field, 2009). This dimension consists of students' voluntary participation in classroom and school activities, setting rules, discussions, voting, and decisions. Similarly, participation has been addressed as a direct dimension in some studies (Kan, 2013; Özcan, 2016; Öztürk & Kalender, 2022; Yıldırım & Türkoğlu, 2017). In addition, democratic participation is indirectly emphasized through actions such as cooperating with others in a group activity (Gömleksiz, 1993; Kan, 2013; Uygun & Engin, 2014), voting (Gömleksiz, 1993), and duty/responsibility (Yıldırım & Türkoğlu, 2017). As a result, individuals who participate in such actions democratically are responsible for themselves and others. As one of six attitudes crucial to a culture of democracy, responsibility is promoted by the Council of Europe (2016). According to the Council of Europe, responsibility is a critical attitude that enables the implementation of democratic skills, because it involves examining one's actions and their consequences, making decisions about what actions to take, and determining how one should behave according to one's values and duties. Consequently, democratic participation on the basis of responsibility is noteworthy as a dimension of the democratic attitude scale developed to understand how primary school students participate in democracy.

Respect is the second important dimension revealed by the democratic attitude scale. People's different structural characteristics (poor, disabled, etc.), thoughts, clothing styles, and appearances are all taken into account in this attitude. Respect is often measured under various names, including respect for ideas, respect for others, and respect for differences (Çermik, 2013; Gömleksiz, 1993; Liagkis et al., 2022; Uygun & Engin, 2014). Respect for the mentioned characteristics of people facilitates democratic interaction and intercultural dialogue with other people (Council of Europe, 2016). In order to determine the extent to which primary school students demonstrate respect, participation in a democratic classroom environment is as important as taking responsibility.

As a third dimension, the democratic attitude scale assesses the level of equality and freedom. Student perceptions of freedom and equality were combined in this dimension. In this dimension, statements include attitudes toward expressing their thoughts and making decisions freely, as well as attitudes towards people from different social, cultural, and economic backgrounds. It can be interpreted that students are associating having equal rights with being able to express themselves

freely. Equality and freedom are one of the most emphasized values in scales from preschool students (Kent-Kükürtçü et al., 2022) and elementary school students (Karakuş, 2017) to pre-service teachers or teachers (Çermik, 2013; Gömleksiz, 1993; Karakuş, 2017; Yıldırım & Türkoğlu, 2017).

5. Suggestions

Following a literature review, items for this democratic attitude scale were derived from a survey research design. It can be suggested to conduct a mixed research study in which first a qualitative data collection is conducted and then a quantitative application is performed based on these structures in order to understand "what" democratic attitudes and values are in primary school students' perceptions.

Students' attitudes toward democratic participation, respect, and equality/freedom can be studied using regression analyses based on possible social, economic, cultural, and educational factors. Further, it may be possible to increase experimental studies aimed at improving the democratic attitudes of primary school students by creating a democratic classroom climate. In addition to participation and respect in the democratic attitude scale, an attitude towards equality/freedom dimension emerged. Primary school students' schemes may not construct equality and freedom fully or correctly, and both values may have aggregated into the same factor. Therefore, it is proposed to conduct a qualitative case study utilizing psychometric tests, metaphorical research, documentation, and observation to examine how both democratic values are organized in primary school students' cognitions.

In light of the conceptual framework of democratic qualities, it is possible to analyze the impact of democratic actions or arrangements (e.g., curriculum-teaching structures, preserving and organizing classroom structures, environmental arrangements, teacher relationships, decision-making) on forming democratic classroom climates. A number of elements related to continuity in democratic structures (e.g., pluralism, justice management, emotional intelligence, critical perception, political understanding, communication skills) can also be examined with regard to students' attitudes towards participation, respect, and equality/freedom in primary school.

As well as participation, respect, equality, and freedom on this scale, civic awareness and self-efficacy were identified by the Council of Europe as democratic attitudes. These two dimensions may be addressed by democratic attitude scales that can be developed at the elementary school level.

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References

- Akbaş, O. (2004). *Evaluation of the degree of reaching of affective goals at the elementary level in Turkish national education system* [Unpublished doctoral dissertation]. Gazi University, Ankara.
- Alexander, N. R. (2023). Dewey on democratic education. In J., Clup, J. Drerup & D. Yacek (Eds.), *The cambridge handbook of democratic education* (pp. 61-73). Cambridge University Press. <https://doi.org/10.1017/9781009071536.007>
- Bacanlı, H. (2000). *Gelişim ve öğrenme* [Development and learning]. Nobel.
- Biamba, C., Chidimma, O. N., Chinwe, O. V., Kelechi, M. C. & Chinyere, N. A. (2021). Assessing democratic classroom practices among secondary school civic education teachers in the global south: Case study of South East Nigeria. *Cogent Education*, 8(1), 1-13. <https://doi.org/10.1080/2331186X.2021.1896425>.

- Brace, N., Kemp, R., & Snelgar, R. (2003). *SPSS for psychologists a guide to data analysis using SPSS for Windows*. Palgrave.
- Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. The Guilford Press.
- Bryne, B. M. (2010). *Structural equation modeling with amos basic concepts, applications, and programming*. Taylor and Francis Group.
- Büyüköztürk, Ş. (2011). *Sosyal bilimler için veri analizi el kitabı - İstatistik, araştırma deseni, SPSS uygulamaları ve yorum* [Data analysis handbook for social sciences - Statistics, research design, SPSS applications and interpretation]. Pegem.
- Can, A. (2022). *SPSS ile bilimsel araştırma sürecinde nicel veri analizi* [Quantitative data analysis in the scientific research process with SPSS]. Pegem.
- Cohen, J. & Fung, A. (2023). Democratic responsibility in the digital public sphere. *Constellations Wiley*, 30, 92-97. <https://doi.org/10.1111/1467-8675.12670>
- Cole, D. A. (1987). Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology*, 55, 1019-1031. <https://doi.org/10.1037/0022-006X.55.4.584>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage.
- Çermik, H. (2013). Pre-service teachers' democratic values and investigation of these values based on some variables. *NWSA-Education Sciences*, 8(2), 261-274. <https://doi.org/10.12739/NWSA.2013.8.2.1C0586>
- Dzavo, J., Luggyab, S. K. & Tanga, M. N. (2021). An analysis of the role of the school in teaching democratic values: A case of three selected primary schools in Shamva district, Zimbabwe. *The Dyke Journal*, 15(2), 30-42.
- Edward, D. B. (2010). Critical pedagogy and democratic education: Possibilities for cross-pollination. *Urban Review*, 42, 221-242. <https://doi.org/10.1007/s11256-009-0129-y>
- Erbil, D. G. & Kocabaş, A. (2017). A scale development study for 3rd grade elementary students: Democratic attitude scale. *Kastamonu Education Journal*, 1(25), 221-232. <https://doi.org/10.14812/cuefd.303672>
- Erkal-Coşan, P. & Altın-Gülova, A. (2014). Organizational democracy. *Journal of Management and Economics*, 21(2), 231-248.
- Field, A. (2009). *Discovering statistics using SPSS*. Sage.
- Garver, M. S. & Mentzer, J. T. (1999). Logistics research methods: Employing structural equation modelling to test for construct validity. *Journal of Business Logistics*, 20, 33-57.
- Gömleksiz, M. (1993). *Kubaşık öğrenme yöntem ile geleneksel yöntemin demokratik tutumlar ve erişime etkisi* [The effect of cooperative learning method and traditional method on democratic attitudes and achievement][Unpublished doctoral dissertation]. Çukurova University, Adana.
- Gözütok, D. (2007). *Öğretim ilke ve yöntemleri* [Principles and methods for instruction]. Ekinoks.
- Hakim, L. I. (2011). *Democracy and schools in Southern Sudan: A study of the role of primary schools in promoting democracy* [Unpublished master's thesis]. Oslo University College, Oslo.
- Iacobucci, D. (2010). Structural equations modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology*, 20(1), 90-98. <https://doi.org/10.1016/j.jcps.2009.09.003>
- İlhan, M. & Çetin, B. (2014). An investigation of the relationship between social and cultural intelligence through structural equation model. *Turkish Journal of Education*, 3(2), 4-15. <https://doi.org/10.19128/turje.181078>
- Kan, Ç. (2013). Development of a scale for participant behavior in class. *NWSA-Education Sciences*, 8(2), 275-284. <https://doi.org/10.12739/NWSA.2013.8.2.1C0587>
- Karakuş, M. (2017). An investigation of students' perceptions about democratic school climate and sense of community in school. *Universal Journal of Educational Research*, 5(5), 787-790. <https://doi.org/10.13189/ujer.2017.050511>
- Kaya, F. (2021). Democracy scale for teacher candidates: A validity and reliability study. *Education Quarterly Reviews*, 4(2), 539-546. <https://doi.org/10.31014/aior.1993.04.02.299>
- Kent-Kükürtcü, S., Erkan, N. S. & Seyfeli, Y. (2021). The development of the democratic behavior scale: A validity and reliability study. *Theory and Practice in Child Development*, 1(1), 56-70. <https://doi.org/10.46303/tpicd.2021.5>
- Kline, R.B. (2011) *Principles and practice of structural equation modeling*. Guilford Press.
- Koç, Y. (2008). *Determining and comparison of democratic attitudes of physical education teachers according to the different variables* [Unpublished master's Thesis]. Abant İzzet Baysal University, Bolu.
- Korkmaz, H. E. & Gümüşeli, A. İ. (2013). Development of the democratic education environment scale. *International Online Journal of Educational Sciences*, 5(1), 82-98.

- Liagkis, M. K., Skordoulis, M. & Geronikou, V. (2022). Measuring competences for democratic culture: teaching human rights through religious education. *Human Rights Education Review*, 5(1), 112-135. <http://doi.org/10.7577/hrer.4487>.
- Litch, M. H. (1998). Multiple regression and correlation. In Laurence G. Grimm & Paul R. Yarnold (Eds.), *Reading and understanding multivariate statistics* [pp. 23-39]. American Psychological Association.
- McDonald, R. P., & Ho, M.-H. R. (2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7(1), 64-82. <https://doi.org/10.1037/1082-989X.7.1.64>
- Mellora, S. & Kennedy, K. J. (2003). Australian Students' democratic values and attitudes towards participation: indicators from the IEA civic education study. *International Journal of Educational Research*, 39, 525-537. <https://doi.org/10.1016/j.ijer.2004.07.002>
- Ministry of National Education [MoNE]. (2018a). *Hayat bilgisi öğretim programı: İlkokul 1. 2. Ve 3. Sınıflar* [Life science curriculum: 1. 2., and 3. grades]. Author.
- Ministry of National Education [MoNE]. (2018b). *Sosyal bilgiler öğretim programı: İlkokul ve Ortaokul 4, 5, 6 ve 7. Sınıflar* [Social studies curriculum: 4. 5., and 6. grades]. Author.
- Özcan, G. (2016). Development of democratic teacher behavior scale (DTBS). *Educational Research and Reviews*, 11(6), 260-268. <https://doi.org/10.5897/ERR2015.2560>
- Öztürk, A., & Kalender, B. (2022). Developing the children's rights-based classroom scale. *Pamukkale University Journal of Education*, 58, 74-99. <https://doi.org/10.9779/pauefd.1074807>
- Perliger, A., Canetti-Nisim, D. & Pedahzur, A. (2006). Democratic attitudes among high-school pupils: The role played by perceptions of class climate. *School Effectiveness and School Improvement*, 17(1), 119-140. <https://doi.org/10.1080/09243450500405217>
- Samancı, O. (2010). Democracy education in elementary schools. *Social Studies*, 101(1), 30-33. <https://doi.org/10.1080/00377990903285499>
- Sari, M., & Sadik, F. (2011). Democracy perception of teacher candidates: Cukurova University example. *International Journal of Curriculum and Instructional Studies*, 1(2), 67-82.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research*, 8(2), 23-74.
- Selçioğlu-Demirsöz, E. (2010). *The effects of the creative drama on the democratic attitudes, metacognitive awareness and emotional intelligence abilities of the teacher trainees* [Unpublished doctoral dissertation]. Dokuz Eylül University, İzmir.
- Selvi, K. (2006). Developing a teacher trainees' democratic values scale: Validity and reliability analyses. *Social Behavior and Personality*, 34(9), 1171-1178. <https://doi.org/10.2224/sbp.2006.34.9.1171>
- Strijbos, J. & Engels, N. (2023). Students' development of deliberative competences: The contribution of democratic experiences in urban schools. *Frontiers Education*, 8, 1-10. <https://doi.org/10.3389/educ.2023.1142987>
- Şimşek, Ö. F., 2007. *Yapısal eşitlik modellemesine giriş, temel ilkeler ve LISREL uygulamaları* [Introduction to structural equation modeling, basic principles and LISREL applications]. Ekinoks.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. Allyn and Bacon.
- Tarhan, N. & Tutgun-Ünal, A. (2021). Üsküdar democratic leadership scale validity and reliability studies. *Journal of Neurobehavioral Sciences*, 8(2), 96-106. https://doi.org/10.4103/jnbs.jnbs_22_21
- The Council of Europe. (2016). *Competences for democratic culture: Living together as equals in culturally diverse democratic societies*. Retrieved March 23, 2023 from <https://rm.coe.int/16806ccc07>
- The Turkish Language Association [TLA]. (2005). *Turkish language dictionary*. Turkish Language Association Publications.
- Toomey, R. (2010). Values education, instructional scaffolding and student wellbeing. In T. Lovat, R. Toomey & N. Clement (Eds.), *International Research Handbook on Values Education and Student Wellbeing* (pp.19-36). Springer. https://doi.org/10.1007/978-90-481-8675-4_2
- Uygun, S. & Engin, G. (2014). Basic democratic values scale: A scale development study. *Turkish Studies*, 9(5), 2021-2031. <https://doi.org/10.7827/TurkishStudies.6660>
- Wang, L. (2018). *John Dewey's democratic education and its influence on pedagogy in China 1917-1937*. Springer. <https://doi.org/10.1007/978-3-658-27568-6>
- Webb, V. S. (1971). Developing democratic attitudes in children: A case for action research. *The Journal of Negro Education*, 40(2), 172-176. <https://doi.org/10.2307/2966729>
- Xu, R. (2009). A survey on the democratic qualities of high school students and the schooling for democracy. *Frontiers Education China*, 4(1), 94-110. <https://doi.org/10.1007/s11516-009-0006-1>

-
- Yeşil, R. (2002). *Okul ve ailede insan hakları ve demokrasi eğitimi* [Human rights and democracy education in school and family]. Nobel.
- Yıldırım, C. & Türkoğlu, A. (2017). Democratic citizenship attitude scale: A validity and reliability study. *Cukurova University Faculty of Education Journal*, 46(2), 649-664. <https://doi.org/10.14812/cuefd.303672>
- Zodikoff, D. (1967). *Development of a scale of social attitudes of fourth, fifth, and sixth grade pupils*. National Science Foundation.