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# Democracy Scale For Teacher Candidates: A Validity And Reliability Study

Fatih Kaya[1]

[1] İnönü University, Education Faculty

**Abstract**

The aim of this study was to develop a valid and reliable measurement tool in order to determine the democracy levels of teacher candidates. During the scale development process in the research, the validity and reliability studies were conducted through three independent study groups. The first study group consisted of 627 students studying at the Faculty of Education in Inonu University in the 2020-2021 academic year, the second study group consisted of 324 students, and the third study group consisted of 87 students. "The Democracy Scale for Teacher Candidates" was used in the research. In the process of data analysis, SPSS 25 software was used for exploratory factor analysis and AMOS 21 software for confirmatory factor analysis. An item pool consisting of 50 items was created for the scale. The number of items was reduced to 40 by obtaining expert opinion in order to ensure the content validity of the scale. As a result of the factor analysis, it was determined that the total variance ratio explained by the single-factor scale with 17 items was 49.640%, and the internal consistency coefficient was .88. In addition to these, the values obtained as a result of the confirmatory factor analysis conducted to test the construct validity of the scale showed that the scale developed to determine the democracy levels of teacher candidates was valid and reliable.

**Keywords:** Democracy, Faculty of Education, Teacher candidate

## 1. Introduction

Democracy, which has a historical background of approximately 2500 years, is a concept that has been defined in different ways in the historical process, that has reached the present day by expanding its meaning and function every century and on which consensus cannot be achieved. In ancient Greek, the concept that comes from the combination of the words "people" (demos) and "sovereignty" (kratos) meant "people's sovereignty." Although many definitions of the concept, which is based on ancient Greek in terms of its origin, have been made from past to present, there is no consensus on it. The fact that the concept is multidimensional, that it contains an ideal in it, and that it has a dynamic structure that is constantly evolving and changing has a great role in this.

Abraham Lincoln made the best known definition of democracy, which is generally based on the sovereignty of the people (TDK, 2011). He expressed the concept of democracy as "the rule of the people by the people, for the people" (Heywood, 1992: 110). However, this definition is far from representing the depth of democracy (Erbil and Kocabaş, 2017). In addition, in the literature, the concept of democracy has been defined in different ways by many political scientists and thinkers from past to present. Sartori (1996: 166) defined it as "the renewal of leadership with a competitive method" Anthony Arblaster (1999) described it as "the upper system representing the people in government." Furthermore, defining it as "the political life style that gives the greatest freedom to the greatest number of individuals, recognizes and preserves the greatest possible diversity," Touraine (2004), unlike others, discussed the concept of democracy from a broader perspective. Dewey (1937) did not consider democracy only as a form of government, but emphasized that democracy is a phenomenon that exists in all areas of life individually and socially, and that enables people to develop and interact with each other. When we look at the definitions of democracy, it is seen that the idea of "the power of the majority or the people" comes to the fore. However, democracy includes the way of thinking, the art of living, the decision-making process, the communication between people and the set of values, beyond the sense of governance and being governed. Thus, seeing democracy only as a political system would mean focusing on only one aspect of the concept.

Democracy, which is the basis of the research, is explained as "being a democrat." The basic condition of being a democrat is only possible by adopting democracy in all its aspects (participation, freedom of expression, respect, equality, justice, tolerance, transparency, etc.). In this respect, family and school factors, in other words, education plays a big role in the adoption of the qualities of democracy, which is the basic condition of democracy, and in developing a democratic attitude. When these factors are briefly discussed, the family, which is the small model of society, not only prepares the individual for the society, but also functions as a small educational institution. The family, which is generally seen as the basic core of society and is a legal and social institution where the primary education of the individual begins, plays a major role in laying the foundations of democratic societies by transferring the structure, culture, values and democratic attitudes of the society to the next generations. For this reason, the importance and role of the family, where the first seeds of social values are planted and which has a basic function in making the child hold on to the life, in raising democratic citizens cannot be denied.

The most important educational institution where individuals gain basic democratic consciousness and values is the school. While the first seeds of democratic consciousness and social values are planted in the family, the germination and growth processes of these seeds are carried out by the schools. In this context, schools, which are the most important places for gaining democratic attitudes and behaviors (Erbil and Kocabaş, 2017), should be structured with a focus on raising individuals who know, adopt and apply democratic culture in daily life. In addition, if it is taken into consideration that democratic consciousness can only be assimilated through democratic life (Ertürk, 1985), the importance of democratic environments created in schools becomes more evident in individuals' adoption of democratic attitudes and behaviors. Democratic classroom environments affect students positively and provide an important convenience for them to gain democratic attitudes, behaviors and values (Gömleksiz and Çetintaş, 2011). Thus, in student-centered democratic classrooms, students who are active in the learning process, questioning, criticizing, taking responsibility, and able to express their opinions freely (Duman and Koç, 2004) play a major role in the construction of a democratic society.

Faculties of education are one of the important steps among educational institutions in terms of students' gaining democratic attitudes and behaviors. The effect of academicians on teacher candidates' gaining democratic attitudes and behaviors is extremely important, because their democratic practices, communication and learning processes in the classroom and outside of the classroom will enable teacher candidates to adopt and internalize democratic attitudes (Gömleksiz and Çetintaş, 2011). Ultimately, the constructed democratic educational environments can lead to the training of future teachers who are critical, questioning, open to new ideas, tolerant and absorbing democratic participation. Moreover, it will be an important step in the construction of democratic societies that teachers, who play an important role in students' adoption of democratic culture, adopt democratic attitudes and behaviors and present knowledge, skills and values to new generations by making them a lifestyle.

When the studies in the literature are examined, it is seen that many applied and theoretical studies have been conducted in Turkey and other countries on issues such as democracy, democratic attitude and democratic

participation. Especially in studies in Turkey, it is seen that studies aiming to determine the democratic attitudes of students, teachers and administrators are the majority (Yeşil, 2001; Kıncal and Işık, 2003; Gömleksiz and Çetintaş, 2011; Koçoğlu, 2013; Ural and Sağlam, 2011; Zencirci, 2010; Sönmez-Ektem and Sünbül, 2011; Elkatmış and Toptaş, 2015; Gül and Saraç, 2018). In addition, some studies on the development of a measurement tool have been conducted in order to measure democratic attitudes in different levels of education (Gözütok, 1995; Zencirci, 2003; Yazıcı, 2003; Kesici, 2006; Tutkun and Genç, 2013; Keçe and Dinç, 2015; Şimşek, 2011; Erbil and Kocabaş, 2017; Yeşil, 2010). Therefore, when the literature was examined, it was seen that there was no scale development study to determine the democracy levels of teacher candidates. In this respect, it is aimed that this study will contribute to filling this gap in the literature.

*1.1. Purpose of the Study*

The aim of this study was to develop a valid and reliable measurement tool in order to determine the democracy levels of teacher candidates. Furthermore, it is thought that this study will be a source for future studies in terms of determining democratic attitudes.

## 2. Method

*2.1. Participants*

In the process of developing the scale in this study, the validity and reliability studies were conducted through three independent study groups. Explanatory information about the working groups is given below.

***The first study group:*** This study group consisted of 627 students studying at the Faculty of Education in Inonu University in the 2020-2021 academic year. The data obtained from this study group were used in the exploratory factor analysis and in determining the internal consistency reliability of the scale used in the research. When the forms returned from the students were examined, it was seen that some forms were filled incompletely. These missing forms were discarded and the remaining 621 forms were analyzed. While 351 (57%) of this study group were females, 270 (43%) of them were males and 127 (20%) of the study group were freshmen, 170 (27%) of them were sophomores, 146 (24%) of them were juniors and 182 (29%) of them were seniors.

***The second study group:*** This study group consisted of 324 students studying at the Faculty of Education in Inonu University in the 2020-2021 academic year. The data obtained from this study group were used to determine the confirmatory factor analysis results of the scale used in the study. When the forms returned from the students were examined, it was seen that some forms were filled incompletely. These missing forms were discarded and the remaining 317 forms were analyzed. While 182 (57%) of this study group were females, 135 (42%) of them were males and 73 (23%) of the study group were freshmen, 82 (26%) of them were sophomores, 74 (23%) of them were juniors and 88 (28%) of them were seniors.

***The third study group:*** This study group consisted of 87 students studying at the Faculty of Education in Inonu University in the 2020-2021 academic year. The data obtained from this study group were used to determine the test-retest reliability results of the scale used in the study. While 53 (61%) of this study group were females, 34 (39%) of them were males and 22 (25%) of the study group were freshmen, 24 (28%) of them were sophomores, 19 (22%) of them were juniors and 22 (25%) of them were seniors.

*2.2. Data Collection Tool*

"*The Democracy Scale for Teacher Candidates*" was used in the research. During the scale development process, firstly, a group of 45 students in the faculty of education were asked to write an essay on democracy. Next, the literature was reviewed along with the data obtained from the essays written by the students and a draft item pool was created using similar scales (Gözütok, 1995; Zencirci, 2003; Keçe and Dinç, 2015; Şimşek, 2011; Tutkun and Genç, 2013; Yazıcı, 2003; Sincar, Şahin and Beycioğlu, 2019; Shechtman, 2002). 50 items were placed in the draft item pool and as a result of revision on the draft items, expert opinion was sought on 45 items in accordance

with the aims of the research. As a result of the feedback received from 7 expert faculty members in Faculty of Education, Department of Social Sciences and Department of Educational Sciences of Artvin Coruh University, Bilecik Seyh Edebali University and Inonu University, it was decided to remove 5 items and revise 3 items, and validity and reliability studies of the measurement tool were conducted on 40 items.

*2.3. Data Analysis*

Before analyzing the data obtained in this study, descriptive statistics were used to determine whether there was an error in data entry and whether the values of skewness and kurtosis of the items ranged between "+1.00" and "-1.00" (Tabachnick and Fidel, 2012). In the analysis, it was also checked whether there was an extreme value in the data set. As a result of the analysis, it was determined that the values of skewness and kurtosis for the data set ranged from -0.75 to +0.88 and there were no extreme values in the data set. One of the most important features regarding the validity of the scale scores in the process of developing or adapting the measurement tool is the construct validity. Construct validity tests the validity of inferences about unobservable variables through observable variables (Çokluk, Şekercioğlu and Büyüköztürk, 2010). Factor analysis technique is often used to test the construct validity of scales developed in social sciences (Büyüköztürk, 2010). The two basic methods used in factor analysis are exploratory and confirmatory factor analysis. In the exploratory factor analysis (EFA), the researcher tries to define or summarize the data set by gathering together the variables that are related at the beginning of the research (Pallant, 2011; Tabachnick and Fidell, 2012). In confirmatory factor analysis (CFA), it is aimed to test the hypothesis or theory related to the structure formed by the relationship between variables with complex and high-level analyzes (Büyüköztürk, 2010; Tabachnick and Fidell, 2012). In this study, first EFA and then CFA was conducted to determine the construct validity of the trust in teacher scale. Before EFA, the Kaiser-Meyer-Olkin (KMO) coefficients were examined and the Bartlett's sphericity test was used to determine whether the data were suitable for factor analysis. While conducting EFA, the factor loadings of the items, the consistency of the items in terms of meaning and content, common factor variances for each item, eigenvalues of the factors, total variance and line chart is drawn according to eigenvalues were taken into consideration in discarding the items that could not measure the same structure and determining the number of important factors (Büyüköztürk, 2010; Çokluk, Şekercioğlu and Büyüköztürk, 2010; Kline, 2011; Pallant, 2011; Tabachnick and Fidell, 2012). While conducting EFA analysis, varimax rotation, one of the most frequently used orthogonal rotation techniques in social sciences (Büyüköztürk, 2010), was used. CFA was also conducted to evaluate the model data fit related to the factor structure obtained as a result of EFA. CFA was conducted using AMOS 21 software. The probability method was used the most in the analyzes. In the interpretation of the goodness of fit values obtained from the confirmatory factor analysis result, some generally accepted criteria in the literature were used. In the literature, "$\chi2$ / df" ratio of 2 or less, GFI, AGFI, NNFI and CFI values of ".95" or above, RMSEA, RMR and SRMR values of ".05" or below are considered as evidence of good model-data fit. On the other hand, "$\chi2$ / df" ratio of between 2 and 5, GFI, AGFI, NNFI and CFI values of ".90" or above, RMSEA, RMR and SRMR values of less than ".08" are considered as evidence of acceptable model-data fit (Brown, 2006, Çokluk, Şekercioğlu and Büyüköztürk, 2010; Schumacker and Lomax, 2010; Şimşek, 2007; Tabachnick and Fidell, 2012). For reliability studies, corrected item-test correlation coefficients, internal consistency coefficients and test-retest correlation coefficients were found.

**3. Findings**

Exploratory Factor Analysis (EFA) was conducted to determine the factor structure of the scale. As a result of the exploratory factor analysis, irrelevant items, items with a factor loading of below ".30", items with a high loading in more than one dimension (Büyüköztürk, 2010) were removed, and a one-dimensional 17-item scale (Table 1) was obtained.

Table 1: Exploratory Factor Analysis Results

| Items | Factor Loadings | Common Factor Variance | Corrected Item-Test Correlations |
|---|---|---|---|
| I1 I accept democracy as a way of life. | .752 | .645 | .676 |
| I2 I believe that everyone has the right to vote and be elected. | .738 | .636 | .658 |
| I3 I think democracy and diversity are beneficial for the society. | .733 | .624 | .642 |
| I5 I respect minority opinion on any matter. | .711 | .618 | .634 |
| I6 I appreciate the criticism I received. | .671 | .604 | .621 |
| I7 I can work with people of different cultures. | .635 | .595 | .611 |
| I8 I listen to people with different views on political issues. | .624 | .584 | .601 |
| I9 I take responsibility for political issues. | .611 | .579 | .596 |
| I11 I respect the political preferences of others. | .604 | .575 | .584 |
| I12 I would like different views to be represented in the society. | .597 | .568 | .576 |
| I15 I make an effort to ensure that people have individual rights and freedoms. | .589 | .564 | .569 |
| I17 I follow the rules of law. | .558 | .555 | .557 |
| I18 I treat everyone equally. | .535 | .534 | .534 |
| I25 I respect different opinions and accept them with tolerance. | .513 | .502 | .508 |
| I27 I believe that men and women have an equal voice in politics. | .501 | .497 | .498 |
| I37 I think women should take part in administration. | .496 | .492 | .494 |
| I39 I think men and women should have equal rights. | .476 | .468 | .471 |
| **Eigenvalue** | 4.964 | | |
| **Total Variance Explained** | %49.640 | | |
| **Cronbach's Alpha** | .88 | | |

It was determined that the factor loadings of the items in the scale ranged from ".476" to ".752", common factor variances ranged from ".468" to ".645", and the corrected item-test correlations ranged from ".471" to ".676". It was found that 17 items in the scale explained 49.640% of the total variance and the internal consistency coefficient of the scale was .88. In scoring the scale, 5-point Likert type rating ranging from "Disagree" to "Completely Agree" was used.

The one-dimensional structure of the scale obtained after the exploratory factor analysis was tested using confirmatory factor analysis (CFA) (Figure 1). The goodness of fit values for the confirmatory factor analysis are as follows: $\chi2/df=2.45$, GFI=0.94, AGFI=0.93, NFI=0.95, NNFI/TLI=0.95, IFI=0.95, CFI=0.96, RMSEA=0.041, RMR=0.032, SRMR=0.043. When the values obtained as a result of the confirmatory factor analysis are evaluated in terms of the criteria used in the literature, it can be said that they have acceptable and good fit.
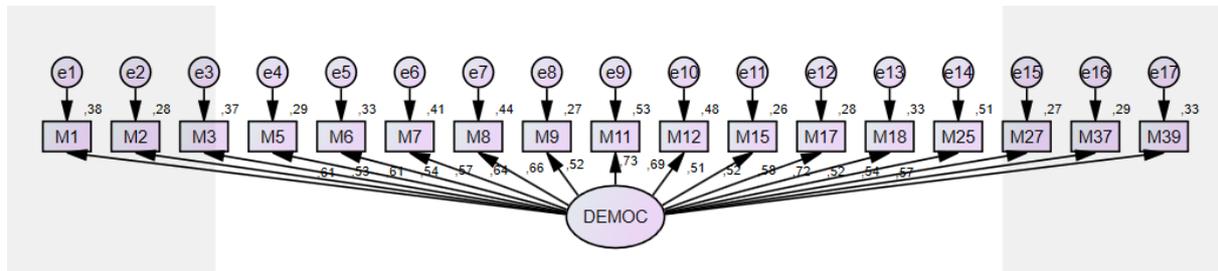
Figure 1: Tested Model

As a result of the analysis conducted for the reliability studies of the scale, the internal consistency coefficients were ".88" for the first study group and ".89" for the second study group. Kline (2011) stated that the reliability coefficient is excellent around ".90", very good around ".80", adequate around ".70" and insufficient below ".50". Based on the findings obtained from the research, it can be said that the internal consistency coefficients of this study are very good.

In the study, in order to determine the time consistency of the scale, the measurement tool was conducted twice with an interval of 15 days to 87 students studying at the Faculty of Education in Inonu University in the 2020-2021 academic year. As a result of the analysis of these data, the arithmetic averages, standard deviations, internal consistency coefficients and test-retest reliability coefficients of the scale are given in Table 4.

Table 4: *Test-retest reliability analysis results for the scale*

| Application | $\overline{\text{X}}$ | Sd | r | Cronbach's Alpha |
|---|---|---|---|---|
| I. Application | 3.87 | 7.67 | | .89 |
| | | | .85 | |
| II. Application | 3.84 | 7.58 | | .89 |

As can be seen in Table 4, it is seen that the arithmetic average of the scores obtained from the first application was 3.87, the standard deviation was 7.67 and the internal consistency coefficient was .89. The arithmetic average of the scores obtained from the second application was 3.84, the standard deviation was 7.58, and the internal consistency coefficient was .89. The correlation coefficient between the scores obtained from the first and second applications was found to be .85. In the light of these findings, it can be said that the scale is consistent despite the time interval.

## 4. Discussion, Conclusion And Recommendations

In the study, it was aimed to develop a scale for determining the democracy levels of teacher candidates. For this reason, a theoretical framework was established by emphasizing the role of faculties training teachers in developing democratic attitudes of teacher candidates in accordance with the aims of the study. Later, the literature was reviewed and similar scales were examined and it was determined that no scale on the democracy levels of teacher candidates was found. Ultimately, the scale development process was initiated and for this purpose, a group of 45 students in the faculty of education was asked to write an essay on democracy. Next, the literature was reviewed along with the data obtained from the essays written by the students and a draft item pool was created using similar scales (Gözütok, 1995; Zencirci, 2003; Keçe and Dinç, 2015; Şimşek, 2011; Tutkun and Genç, 2013; Yazıcı, 2003; Sincar, Şahin and Beycioğlu, 2019; Shechtman, 2002). 50 items were placed in the draft item pool and as a result of revision on the draft items, expert opinion was sought on 45 items in accordance with the aims of the research. In accordance with the expert opinion, 40 items were determined and the scale was made ready for pre-application. Later, as a result of EFA conducted for validity studies, it was seen that 17 items were grouped under a single factor. It was determined that the factor loadings of the items in the scale ranged from ".476" to ".752", common factor variances ranged from ".468" to ".645", and 17 items in the scale explained 49.640% of the total variance. Corrected item-test correlation coefficients were also found for the item validity and homogeneity of the scale. It was determined that the corrected item-test correlations ranged from ".471" to ".676" and the internal consistency coefficient of the scale was .88.

CFA was conducted to test the structure of the scale obtained as a result of EFA. The goodness of fit values for the confirmatory factor analysis are as follows: $\chi2/df=2.45$, GFI=0.94, AGFI=0.93, NFI=0.95, NNFI/TLI=0.95, IFI=0.95, CFI=0.96, RMSEA=0.041, RMR=0.032, SRMR=0.043. When the CFA results are evaluated, it can be said that the measurement tool has acceptable values and goodness of fit indexes according to the literature.

In the study, in order to determine the time consistency of the scale, the measurement tool was conducted twice with an interval of 15 days to 87 students studying at the Faculty of Education in Inonu University. As a result of the analysis of these data, the correlation coefficient between the first and second applications was found to be .85. According to this correlation coefficient, it can be stated that the scale is consistent despite the time interval.

When the literature was examined, although there were various studies and scale development studies on the democratic attitudes of teacher candidates (Genç and Kalafat, 2008; Gözütok, 1995; Sincar, Şahin and Beycioğlu, 2019; Keçe and Dinç, 2015; Tutkun and Genç, 2013), there was no scale for determining the democracy levels of teacher candidates in the literature. Since there is no scale for determining the democracy levels of teacher candidates, it can be said that this single-factor scale with 17 items will make a significant contribution to the field. The findings obtained from the validity and reliability studies conducted during the research revealed that the scale is a valid and reliable measurement tool that can be used in determining the democracy levels of teacher candidates. In this context, this scale is expected to reveal a different perspective for researchers in the studies conducted to determine the democracy levels of teacher candidates.

The democracy levels of teacher candidates can be determined with the scale developed as a result of this study, which aims to develop a scale for determining the democracy levels of teacher candidates. Thus, it can be said that this scale is important throughout the teaching profession of teacher candidates after their undergraduate education. From this point of view, it can be predicted that the future teachers will be able to realize democracy in their classroom practices and in their relations with the stakeholders of the school. In this context, it is expected that this scale will contribute to the education systems in putting democracy into practice. In addition, it is thought that this study will be a big step for future teachers to gain a democratic attitude, which is one of the most important steps of effective teaching method.

**References**

Arblaster, A. (1999). *Demokrasi* (Trans. Nilüfer Yılmaz). Ankara: Doruk Yayıncılık.
Brown, T.A. (2006). *Confirmatory factor analysis for applied research*. New York: Guilford Press.
Büyüköztürk, Ş. (2010). *Sosyal bilimler için veri analizi el kitabı* (12. edn). Ankara: Pegem Akademi.
Çokluk, Ö., Şekercioğlu, G., and Büyüköztürk, Ş. (2010). *Sosyal bilimler için çok değişkenli istatistik: SPSS ve LISREL uygulamaları.* Ankara: Pegem Akademi.
Dewey, J. (1937) Democracy and educational administration. *School and Society* 45, 457-467.
Duman, T. and Koç, G. (2004). *Eğitim Fakültesi öğrencilerinin öğretim elemanlarının demokratik tutum ve davranışlarına ilişkin görüşleri,* XIII. National Congress on Educational Sciences, 6-9 of July 2004, Inonu University, Malatya.
Ektem S. I. and Sünbül A. (2011). Öğretmen adaylarının demokratik tutumları üzerine bir araştırma. *Selcuk University Ahmet Kelesoglu Faculty of Education Journal*, 31(2), 159-168.
Elkatmış, M. and Toptaş, V. (2015). Exploration of prospective classroom teachers' democratic attitudes. *Yuzuncu Yil University Journal of Education Faculty*, 12 (1), 128-144. Retrieved from https://dergipark.org.tr/tr/pub/yyuefd/issue/25854/272575.
Erbil, D. G. and Kocabaş, A. (2017). A scale development study for 3rd grade elementary students: Democratic attitude scale. *Kastamonu Education Journal*, *25*(1), 221-232.
Ertürk, S. (1985). *Diktacı tutum ve demokrasi,* 4. edn, Yelkentepe Yayınları: 8, Ankara: Sistem Ofset Matbaası.
Genç, S. Z. and Kalafat, T. (2008). The evaluation of teacher candidates' democratic attitudes and emphatic skills. *Manas Journal of Social Studies,* 19, 211-222.
Gömleksiz, M. N. and Çetintaş, S. (2011). Democratic attitudes of prospective teachers (Case of Fırat, Dicle, 7 Aralık, Cumhuriyet and Erzincan Universities). *Dicle University Journal of Ziya Gokalp Faculty of Education*, (17), 1-14.
Gözütok, F. D. (1995). *Öğretmenlerin demokratik tutumları*. Ankara: Türk Demokrasi Vakfı Yayınları

Gül, İ. and Saraç, G. (2018). Democratic attitudes of school directors. *International Journal of Social and Educational Sciences*, 5 (10), 155-172. DOI: 10.20860/ijoses.435764.

Heywood, A. (1992). *Political ideologies* (Trans. Bican Şahin). Macmillan Yayınevi.

Keçe, M. and Dinç, E. (2015). Developing a democratic participation scale: Assesing validity and reliability. *Gazi University Journal of Gazi Educational Faculty, 35*(1), 177-207.

Kesici, Ş. (2006). The validity and reliability study of the Turkish Version of The Non-Democratic Teacher Belief Scale. *Eurasian Journal of Educational Research*, 24, 143-152.

Kıncal, R. Y. and Işık, H. (2003). Demokratik eğitim ve demokratik değerler. *Journal of Eğitim Araştırmaları, 3* (11), 54-58.

Kline, R. B. (2011). *Principles and practice of structural equation modeling.* New York: The Guilford Press.

Koçoğlu, E. (2013). Social studies teachers' opinions on school principals' democratic attitudes and behaviors. *Turkish Studies- International Periodical For The Languages, Literature and History of Turkish or Turkic, 8*(6), 413-430.

Pallant, J. (2011). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows* (4th edn.). Berkshire: Open University Press.

Sartori, G. (1996). *Demokrasi teorisine geri dönüş* (Trans. Tunçer Karamustafaoğlu and Mehmet Turhan). Ankara: Yetkin Yayınları.

Schumacker, R. E. and Lomax, R. G. (2010). *A beginner's guide to structural equation modeling* (3rd edn.). New York: Routledge.

Shechtman, Z. (2002). Validation of the democratic teacher belief scale (DTBS). *Assessment in Education: Principles, Policy & Practice*, *9*(3), 363-377.

Sincar, M., Şahin, İ. and Beycioğlu, K. (2019). A validity and reliability study for the democratic attitude scale. *Gaziantep University Journal of Educational Sciences*, 3(2), 91-100.

Şimşek, N. (2011). Assesing the democratic attitudes of primary school students according to various factor in the social studies lesson. *Journal of Milli Eğitim, 41*(190), 188-202.

Şimşek, Ö. F. (2007). *Yapısal eşitlik modellemesine giriş temel ilkeler ve LISREL uygulamaları*. Ankara: Ekinoks Yayıncılık.

Tabachnick, B. G. and Fidell, L. S. (2012). *Using multivariate statistics* (6th edn.), Boston, MA: Pearson Education Inc.

TDK. (2011). *Türkçe sözlük,* (prepared by: Şükrü Akalın). Atatürk Kültür, Dil ve Tarih Yüksek Kurumu Türk Dil Kurumu Yayınları, Ankara.

Touraine, A. (2004). *Demokrasi nedir?* İstanbul: Yapı Kredi Yayınları.

Tutkun, T. and Genç, S. Z. (2013). Democratic understanding and attitudes of candidate teachers: A study of scale development. *The Journal of Academic Social Science Studies, 6* (7), 1127-1138.

Ural, S. N. and Sağlam, H. İ. (2011). İlköğretim öğrencilerinin demokratik tutum düzeylerinin bazı değişkenler açısından incelenmesi. *Journal of Değerler Eğitimi*, *9*(22), 161-180.

Yazıcı, K. (2003). *Effects of using discussion method on democratic attitudes of students in social studies course in elementary school 6th grade* (Unpublished master's thesis). Gazi University Institute of Educational Sciences, Ankara.

Yeşil, R. (2001). *The effects of schools and families on the primary school students in the process of gaining democratic* behaviours (Unpublished Doctoral Thesis). *Atatürk* University Institute of Social Sciences, *Erzurum.*

Yeşil, R. (2010). Demokratik öğretmen davranış kararlılığı ölçeğinin geçerlik ve güvenirliği. *Educational Sciences: Theory and Practice*, *10*(4), 2665-2692.

Zencirci, İ. (2003). An assessment of administration's democratic level at elementary school in relation to participation, freedom, and autonomy dimensions (Unpublished Doctoral Thesis). Ankara University Institute of Social Sciences, Ankara.

Zencirci, İ. (2010). Administrations' democratic level in elementary schools: Participation, freedom and autonomy. *Balıkesir University the Journal of Social Sciences Institute. 3*(24), 86-114.