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## **DEVELOPMENT OF SOCIAL JUSTICE AWARENESS SCALE: EXPLORATORY (EFA) AND CONFIRMATORY (CFA) FACTOR ANALYSIS**

*Research Article*

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## DEVELOPMENT OF SOCIAL JUSTICE AWARENESS SCALE: EXPLORATORY (EFA) AND CONFIRMATORY (CFA) FACTOR ANALYSIS

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### Abstract

In this study, it was aimed to develop a measurement tool that measures the level of importance and value that secondary school students attach to social justice. Accordingly, 352 participants, consisting of eighth-grade students, received a draft scale consisting of 47 items and a personal information form. The data obtained were checked for Cronbach-alpha reliability, item-total correlation, and exploratory factor analysis. Data obtained as a result of factor analyses show that the scale consists of a single factor. The variance percentage of the single-factor scale was calculated as 58.87%. The scale and personal information form prepared after EFA analyzes were applied to 438 students for confirmatory factor analysis (CFA) procedures. The fit indices obtained as a result of the confirmatory factor analysis showed that there was a fit between the model and the data and that the proposed model was at an acceptable level. In the final form of the scale, the Cronbach Alpha internal consistency reliability coefficient was determined as 0.782. As a result of the analysis, a 39-point social justice awareness scale was developed in 4-point Likert type. According to the results obtained, it was determined that the social justice awareness scale is a valid and reliable measurement tool.

*Keywords:* Social justice, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), scale development, validity, reliability.

### 1. Introduction

The prerequisite for the development of stability and peace in societies is the provision of social justice. Social justice is intended to make people living in a society feel safe, to meet their interests, desires, and needs. The plight of vulnerable people has been compounded by widespread issues with inequality. As a result, the concept of social justice has become increasingly important in the rapidly changing global circumstances (Restubog, Deen, Decoste & He, 2021: 2). As a result of the fact that societies interact with each other today, social justice has become a very important area for eliminating differences arising from economics, social, political views, and education.

Social justice, in essence, is a matter of equal opportunity. It is about addressing all kinds of inequalities (Barry, 2017: 24). At the heart of social justice is the fair and equal distribution of all resources in society to individuals, and for individuals in society to feel safe. When we look at the literature, it is seen that there are many definitions of the concept of social justice. Özgüven has defined social justice as an area that compasses all areas from the state system to the economic and legal system, but also as an understanding of the law that has secularism, democratic regime, human rights and freedom, religious beliefs and tries to eliminate the extraordinary imbalance in income distribution and differences in regional development. (Özgüven, 2003: 36-37). Bell, on the other hand, made an important point when describing

social justice as the equal distribution of the sources of income of the society to its citizens, the belief in that society, the fact that all citizens with different ethnic roots or political opinion feel physically and psychologically safe and secure in the society in which they live, and as a result, citizens participate in democratic decision-making processes and have a sense of responsibility towards those who are different from them (Bell, 2007: 4). In his definition, Bell wanted to draw attention to how the mechanism of social justice in multicultural societies should work when it comes to all citizens living in a society whose faith, political opinion, and ethnicity are different.

The concept of social justice is a concept related to the protection and maintenance of cultural differences and fundamental rights of people in society, as well as the provision of social and economic rights of people who have little voice. Grant and Gibson, who think that the state should have a responsibility for the elimination of injustices and unfair inequalities within society (Grant & Gibson, 2013: .90), support Moffat, who argues that growing inequalities, especially between rich and poor nations, are the subject of social justice in order for all generations, now and future, to have equal opportunities and protect human rights, no matter how different they are from each other. (Moffat, 2001: 7). In societies with cultural diversity, individuals should not be subjected to injustice in order to live in a free and peaceful environment regardless of their language, religion, ethnicity, and gender (Demirkaya & Ünal, 2016: 461). In this respect, social justice is considered a necessary mechanism for reducing or eliminating inequalities in education, health, social and legal services in society due to elements such as race, ethnicity, color, faith (Rosner & Salazar 2003: 1). At the core of social justice definitions are concepts such as multiculturalism, justice, equality, human rights, and democratic society. When the definitions are considered in the literature for social justice, it is seen that the concept of social justice, which emphasizes that everyone should have equal rights, is a guide that regulates how societies live in peace, and regulates respect for cultural differences, income distribution, and equality in terms of education, social status, and rights. For a society dominated by social justice consciousness, it is necessary to raise individuals who are conscious of social justice first. A peaceful and tranquil environment in society is formed by individuals with an understanding of social justice, which is one of the basic building blocks that enable individuals of different cultures to live together without problems. In societies that have become intertwined with globalization, it has become inevitable for different races, ethnicities, and social groups to receive education together. Equal educational opportunities should be provided to all students in multicultural environments created by the coexistence of different groups. In particular, the equal rights of children from all social classes in education has brought up the concept of social justice education (Griffths, 1998: 181). The existence of cultural, social, economic, ethnic, racial, and religious differences in societies, the various needs of each student, and the necessity of respecting and tolerating these differences make it necessary to teach social justice in schools. Conducting informative studies on the content of social justice in schools and discussing social inequalities in classrooms will be important for students to empathize with individuals in the society in which they live in (Gerdin, et al, 2021:14).

An informed social justice education is needed for students to confront their assumptions and prejudices about the content of the social justice concept (Wexler, 2021: 1). Respecting human rights and differences, ensuring social justice, creating equality of opportunity, and a society dominated by democracy, teaching universal issues to individuals by schools is necessary and important at the point of educating society. At this point, the importance of education, therefore, what school administrators and teachers understand from social justice comes to the fore in raising individuals who have adopted the understanding of social justice. It is seen that teachers, who are the main elements of the education process, are very valuable

routers at the point of raising students who know how to respect differences and have empathy skills and social justice awareness.

The objectives of social justice education include allowing students to recognize the inequalities and injustices that exist in the society and world in which they live, to learn about how social change affects societies, and to be sensitive to injustices, to gain the ability to react to these inequalities when necessary (Banks, 1994: 33; Grant & Sleeter, 2010: 251) but it also includes encouraging students to see, question and combat pressures such as racism, sexism, classism, religious and cultural discrimination in social life, and prejudice and social stereotypes against people with disabilities (Gutstein, 2006: 112). Only as a result of these will it be possible for students to grow up as citizens who have mastered the structural features of the society they live in and who believe in the necessity of social justice. It is now necessary for schools to improve their students' awareness of social justice while preparing them for life. Students should prepare themselves not just for academic performance, but also for the creation of a more socially just and democratic society. Social justice involves understanding and correcting social and economic inequalities in society. Therefore, it is important that students encounter the principle of social justice, focus on it, and generate ideas about it.

Despite the existence of the scale that determines the social justice beliefs of teacher candidates in national and international literature, the scale that determines the perception of social justice of teachers and administrators working in primary, secondary and high schools, the attitude scale that determines the level of importance and value that is given to social justice by teacher candidates and scales that determine the social justice attitudes of creative drama educators; the lack of a qualified measurement tool that measures the importance and value level of secondary school students (11-14 age group) attach to the concept of social justice was a source of motivation for this study. Therefore, a measurement tool is needed to measure the social justice level of secondary school students. As a result of the study, it is aimed to provide a reliable and valid scale for measuring secondary school students' perceptions of social justice. The study is regarded as important in terms of filling a gap in the national and international literature and contributing to the body of literature.

## **2. Method**

### **2.1. Working Group**

The scale used in the study was applied to 352 middle school students studying at secondary schools with different socio-economic levels in Denizli in the 2020-2021 academic year to conduct EFA analysis. After EFA analysis, the reorganized scale was applied to 438 more students for CFA Analyses. The schools where the research will be conducted have been selected randomly, taking into account the suitability of the research for its purpose. In line with the purpose of the study, research was conducted with middle school students. In determining the schools to be studied, the researchers, the socio-economic structures of the schools, the suitability of the school management and teachers, easy accessibility, volunteering in participation were taken into consideration. Participants were selected using a simple random sampling method. This method is an effective method in that the sample of the research represents the universe (Gay, Mills & Airasian, 2009: 333). The students who participated in the study are studying in the 8th grade. Due to the excessive number of draft items and the fact that the topics related to social justice were all completed before the last grade of secondary school, the limitations that may arise in the 5., 6., and 7. grades were taken into consideration, and the selection of the 8th grades was deemed appropriate.

## **2. 2. Development of the Draft Scale**

In order to collect the data required for use in the study, a personal information form was used along with a draft of a measurement tool that measures the level of importance and value that secondary school students give to social justice. In the preparation of the draft version of the scale for social justice awareness, scale development stages such as the creation of the item pool, obtaining expert opinions, pilot implementation, and determination of validity and confidence were followed (Şeker and Gençdoğan, 2014; Tavşancıl, 2005). In the creation of draft items of the Social Justice Scale, the theoretical structure in the relevant literature and the results of the research were used (Bursa, 2015; Cırık, 2015; Gezer, 2017; Goodman, 2000; Gürgen, 2017; Harding, Siers & Olson, 2012; Ho and Barton 2020; Karacan, Bağlıbel & Bindak, 2015; Keleşoğlu & Metinnam, 2018; Liebig, Hülle & May, 2016; Serpen-Bayoğlu, Duyan, & Aldoğan-Uğurluoğlu, 2014; Serpen-Bayoğlu & Alpaslan 2019; Ludlow, Enterline & Smith, 2017; Özdemir & Kütüküt, 2015; Torres-Harding, Siers & Olson, 2012). It is aimed to determine students' awareness of social justice through the draft scale items. 47 items are rated on a 4-point Likert-type scale. Items of the scale include "Strongly Disagree", "Disagree", "Agree", and "Strongly Agree" options. The scale items were scored as 4 for "Strongly Agree", 3 for "Agree", 2 for "Disagree", and 1 for "Strongly Disagree". Before finalizing the draft form of the self-efficacy scale, the opinions of experts (2 social studies educators, 3 social studies teachers, 1 Turkish teacher, and 2 assessment experts) were taken into consideration. In line with expert opinions, some small changes have been made to the writing of items in terms of language, expression, and narration.

In line with the statements received from the experts, some items were deleted and changes and corrections were made in terms of spelling, form, language, and narration in the remaining items. The preliminary application was made to 5 secondary school students to check whether the items in the draft form organized in accordance with expert opinions were understood by the students. During the preliminary application phase, students were asked questions about what the scale items mean. After the student feedback, some linguistic changes were made on the items, and the scale was made ready for application. In its final version, the social justice awareness draft scale form consists of 9 negative and 38 positive items. However, items number 9, 14, 23, 25, 28, 31, 33, 36, and 41 in the scale were scored inversely. Expert and student feedback were evaluated and the draft scale prepared as 51 items was reduced to 47 items.

## **2.3. Data Analysis**

The data obtained to determine whether the draft scale items are related to social justice awareness have been subjected to analysis processes. During the analysis process, item analyses, EFA (exploratory factor analysis), and CFA (confirmatory factor analysis) were performed in order to determine the structural validity of the draft scale. After the exploratory factor analysis, there are studies suggesting that the analyses be carried out through a single sample, as well as studies that suggest applying them on different samples. With sufficient sampling, deficiencies in the data set should be determined after the exploratory factor analysis and the data set should be edited. After these stages, CFA analysis should be performed. Thus, both the data set can be made suitable for analysis and an estimation method suitable for the data structure can be chosen (Ullman, 2012: 686). In this study, first, exploratory factor analysis was performed on the sampling of 352 participants. After the exploratory factor analysis, some items were removed from the scale and confirmatory factor analysis was performed on the data set obtained from 438 participants to which the new 39-item scale was applied.

### 3. Results

#### 3.1. Structure Validity

##### 3.1.1. Exploratory Factor Analysis (EFA)

The main procedures in the conducting of the exploratory factor analysis in order to determine the structural validity of the social justice awareness scale are determining whether the sample size is sufficient for analysis and the methods used for the selection of factors, examining the results of Kaiser-Meyer-Olkin (KMO) and Bartlett tests, scree plots and factor loadings, choosing the factor rotation method, reporting the total variance rates explained and naming the resulting factors accordingly (Kalaycı, 2015: 325; Tabachnick & Fidell, 2012: 25-26).

##### 3.1.2. Validity Analysis of the Scale

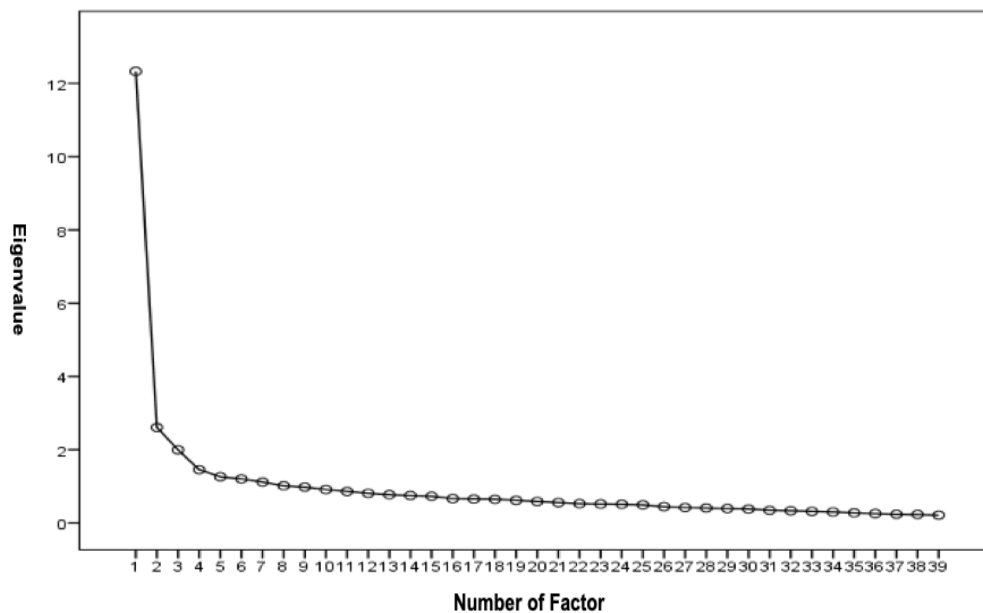
A 47-item scale in four-point Likert type scale was prepared and applied to 352 students in order to determine "the level of importance and value they give to social justice". Exploratory factor analysis was performed on the collected data to determine the factorial structure of the scale and also to study its validity. As a result of the factor analysis, the explained variance graph was examined and it was observed that there is a dominant single factor in the scale. Thereupon, the exploratory factor analysis was repeated a second time to be limited to a single factor. It was stated that the factor loadings should be 0.30 in the scale development process (Büyüköztürk, 2002: 479). In exploratory factor analysis, which is limited to one factor, since the factor loading values of items number 1, 2, 4, 10, 15, 24, 33, and 38 was found to be less than 0.30, the exploratory factor analysis was repeated for the third time by removing a total of eight items. The final explained variance table for the exploratory factor analysis is shown in Table 1.

**Table 1.** *Variance table of the scale*

Factor	Eigenvalues		
	Eigenvalues	Explained variance %	Cumulative variance %
1	12.329	31.613	31.613
2	2.605	6.680	38.294
3	1.991	5.106	43.400
4	1.452	3.723	47.123
5	1.257	3.223	50.345
6	1.199	3.075	53.420
7	1.114	2.857	56.277
8	1.012	2.595	58.871
Kaiser-Meyer-Olkin Measure of Sampling Adequacy=0.933			
Chi-square value of Bartlett's test of Sphericity=6119.916 Df= 741 p=0.000			

Kaiser-Meyer-Olkin statistics were found to be higher than 0.50 at 0.933. In other words, the sample size was sufficient for the 47-item scale. The higher the KMO value, the better it is to perform factor analysis on the data set (Kalaycı, 2005: 322). According to Bartlett's test of sphericity, which tests the suitability for factor analysis, it was observed that the data for these data were suitable for factor analysis ( $p < 0.05$ ).

When the total explained variance table was examined, it was observed that there were eight factors greater than 1 eigenvalue and 2 factors greater than 2 eigenvalues in the 39-item scale. However, when the scree plot regarding eigenvalues was examined, it was seen that 39 items were gathered under one factor. Moreover, 32% of the features measured with a single factor can be measured. Moreover, 32% of the features measured with a single factor can be measured (Aksu, Eser & Güzeller, 2017: 17). The explained variance for a single factor scale is expected to be greater than 30%. The graphic regarding the eigenvalues are shown in Figure 1.



*Figure 1: Factor graph for eigenvalues*

The sorted factor loads for the scale items of the single-factor scale consisting of 39 items are shown in Table 2.

**Table 2.** *Factor loadings of scale items*

Scale Items	Factor Loadings
17. Children of different genders should be given equal responsibility in families.	.744
11. Heavy penalties should be imposed on people or institutions that create environmental pollution.	.722
7. Men and women can do the same job.	.721
8. Father and mother should take equal responsibility in childcare.	.718
45. I react when others are treated unfairly.	.705
35. People who have different opinions in the classroom should be respected.	.702
47. Men and women should be able to choose their professional fields of expertise.	.671
16. I participate in charity campaigns for people in need.	.650
23. I do not want to have an influence in the decision-taking of political decisions in my country.	.649
37. I am against the restriction of fundamental rights and freedoms.	.647
21. Individuals who have different cultural backgrounds should live by respecting each other's differences.	.638
41. I want people to be discriminated against for having different opinions.	.635
44. I'm against people being pressured by their beliefs and opinions.	.634
22. Animals have the same right to life just like humans.	.633
14. Men should have more say in the family.	.612
32. I react when I'm prevented from expressing my thoughts.	.609
43. I know that living in a safe environment (family, school, society) is one of the fundamental rights.	.590
34. Those who commit violence against animals should receive severe penalties.	.574
28. Retired people do not have to have high salaries.	.569
29. In a job application, the expertise of the applicants in their field should be looked at first.	.567
25. I am not upset about some people being subjected to violence.	.551
31. It does not matter that men and women have equal rights.	.521
42. I would like to take part in the projects of non-governmental organizations (The Red Crescent, AKUT, ÇEV, PASVAK FOOD BANK, UNICEF, etc.) that help people in need.	.516
5. I would like to fight all kinds of inequality in society.	.513
6. Teachers should treat students with high and low grades equally.	.510
20. I'd like any idea to be easily discussed in my family.	.500
12. Students should be able to express their opinion comfortably in the classroom.	.493



30. Disabled people should have equal rights like other citizens.	.492
36. When I encounter an unfair situation (seeing someone who doesn't study for their exams getting a high grade by cheating or an innocent person going to jail etc.), I don't discuss the reasons for it in my head.	.488
3. I believe that I should have a say in making decisions in my family on matters that concern me.	.472
9. It is none of my business that my teacher distinguishes between male and female students.	.456
27. Children who come from a low-income family and children who come from a high-income family should be treated equally at school.	.443
40. I care that all citizens receive equal access to health care.	.417
46. A quota should be reserved for disabled individuals when recruiting employees.	.362
13. I help those who come to our school through immigration from different countries.	.362
26. Every individual should have equal economic, social and cultural rights.	.343
39. Everyone in the society should be sensitive to children's rights.	.341
18. Equal job opportunities should be provided for everyone in the society.	.334
19. I would like every city in our country to have equal access to educational, cultural, artistic and sports activities.	.303

When the factor loads were examined, it was observed that the factor loads of all substances were higher than 0.30 and the factor loads varied between 0.303 and 0.744.

### **3.1.3. Reliability Analysis of Scale**

The reliability of the scale was examined with the Cronbach Alpha coefficient. The Cronbach Alpha coefficient of the social justice scale consisting of 39 items was obtained with a high reliability of 0.939. The reliability coefficient varies between 0 and +1. The fact that the reliability coefficient takes values close to 1 means that the reliability and internal consistency between items are high and is desirable. The results of the item-total correlations of the scale items, also known as the validity coefficient are shown in Table 3.

**Table 3:** *Item-total correlations*

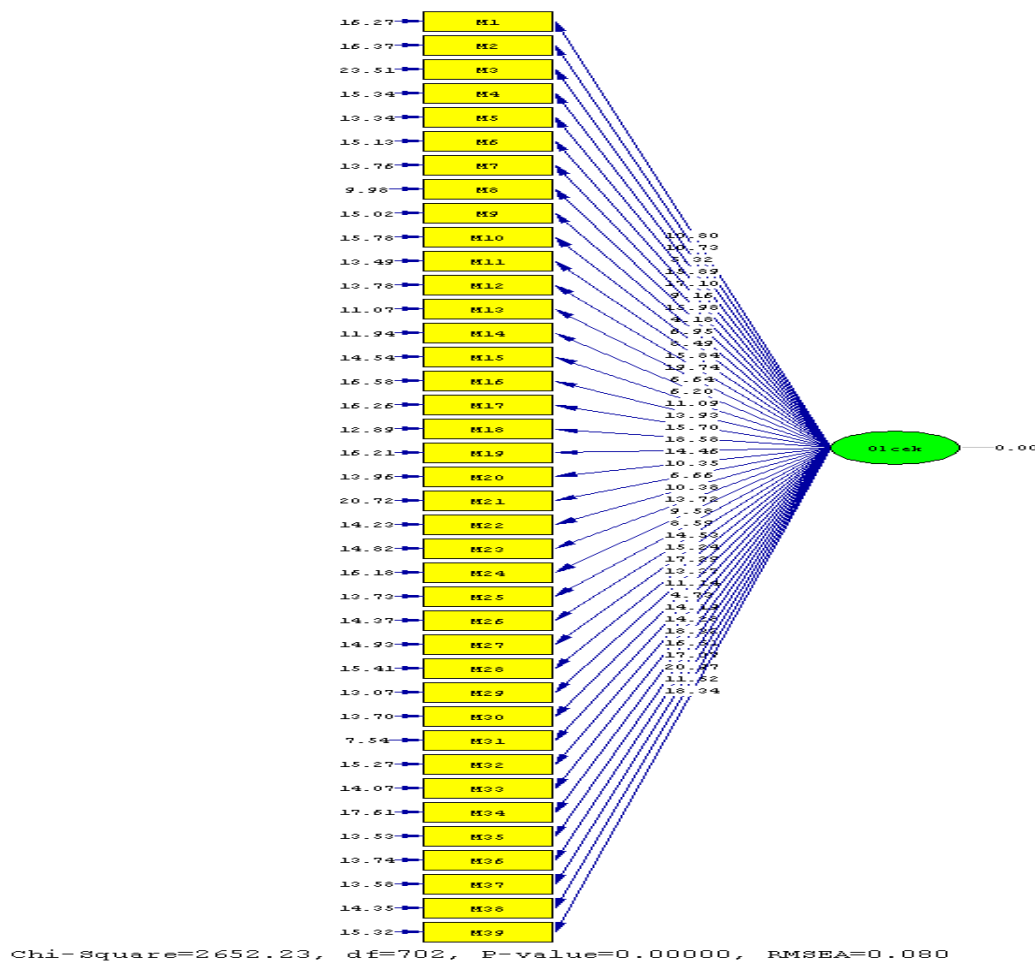
Scale Items	Item Total Correlation
3. I believe that I should have a say in making decisions in my family on matters that concern me.	.431
5. I would like to fight all kinds of inequality in society.	.477
6. Teachers should treat students with high and low grades equally.	.491
7. Men and women can do the same job.	.702
8. Father and mother should take equal responsibility in childcare.	.696
9. It is none of my business that my teacher distinguishes between male and female students.	.421
11. Heavy penalties should be imposed on people or institutions that create environmental pollution.	.678
12. Students should be able to express their opinion comfortably in the classroom.	.457
13. I help those who come to our school through immigration from different countries.	.343
14. Men should have more say in the family.	.570
16. I participate in charity campaigns for people in need.	.605
17. Children of different genders should be given equal responsibility in families.	.716
18. Equal job opportunities should be provided for everyone in the society.	.320
19. I would like every city in our country to have equal access to educational, cultural, artistic and sports activities.	.299
20. I'd like any idea to be easily discussed in my family.	.482
21. Individuals who have different cultural backgrounds should live by respecting each other's differences.	.596
22. Animals have the same right to life just like humans.	.597
23. I do not want to have an influence in the decision-taking of political decisions in my country.	.609
25. I am not upset about some people being subjected to violence.	.519
26. Every individual should have equal economic, social and cultural rights.	.342

27. Children who come from a low-income family and children who come from a high-income family should be treated equally at school.	.423
28. Retired people do not have to have high salaries.	.536
29. In a job application, the expertise of the applicants in their field should be looked at first.	.544
30. Disabled people should have equal rights like other citizens.	.473
31. It does not matter that men and women have equal rights.	.481
32. I react when I'm prevented from expressing my thoughts.	.571
34. Those who commit violence against animals should receive severe penalties.	.541
35. People who have different opinions in the classroom should be respected.	.664
36. When I encounter an unfair situation (seeing someone who doesn't study for their exams getting a high grade by cheating or an innocent person going to jail etc.), I don't discuss the reasons for it in my head.	.453
37. I am against the restriction of fundamental rights and freedoms.	.597
39. Everyone in the society should be sensitive to children's rights.	.297
40. I care that all citizens receive equal access to health care.	.399
41. I want people to be discriminated against for having different opinions.	.604
42. I would like to take part in the projects of non-governmental organizations (The Red Crescent, AKUT, ÇEV, PASVAK FOOD BANK, UNICEF... etc.) that help people in need.	.460
43. I know that living in a safe environment (family, school, society) is one of the fundamental rights.	.525
44. I'm against people being pressured by their beliefs and opinions.	.591
45. I react when others are treated unfairly.	.665
46. A quota should be reserved for disabled individuals when recruiting employees.	.355
47. Men and women should be able to choose their professional fields of expertise.	.636

It was observed that item-total correlations ranged from 0.30 to 0.72 and the item validity coefficients of all items were higher than 0.30.

### 3.2. Validity Testing of the Scale with Confirmatory Factor Analysis

In order to determine the “level of importance and value that is given to social justice”, the four-point Likert-type scale was concluded as 39 items as a result of EFA and the scale was finalized. Then, Confirmatory Factor Analysis (CFA) was applied to these 39 items. As a result of not meeting the assumption of multiple normality between items, parameter estimation was conducted by using Asymptotic covariance matrix with Robust Unweighted Least Squares-ULS method. The lambda values of the items and t values showing the significance of the relationship between each item and the latent variable were examined. As can be seen in Figure 2, all values were found to be significant ( $p < 0.05$ ). Therefore, no item has been removed.



**Figure 2:** Diagram representation of t values for social justice awareness scale items. Fit indexes for model-data fit were examined and the model-data fit indices of the single-factor 39-item scale are shown in Table 4..

**Table 4.** Goodness of fit indexes for the factor structure of the scale items

Goodness of Fit Index	Acceptable Limit *	Value
$X^2/df$	<5 moderate fit <3 good fit	$2652.23/702 = 3.77$
GFI	>0.90	0.97
CFI	>0.90	0.99
NFI	>0.90	0.97
NNFI	>0.90	0.99
RFI	>0.85	0.97
S-RMR	< 0.08	0.063
RMSEA	< 0.08	0.080

\*References: Baumgartner & Homburg, 1996; Bentler, 1980; Kline, 2011

According to Table 4, the similarity ratio of chi-square statistic was calculated as  $X^2(702)=2652,23$   $P<0.01$ ; the ratio of chi-square statistics to degrees of freedom was calculated as  $(X^2/df)=3,77$ ; the root mean square error of approximation was calculated as (RMSEA)=0.080; standardized root mean square residual was calculated as (S-RMR)=0.063; comparative fit index was calculated as (CFI)= 0,99; goodness of fit index was calculated as (GFI)= 0,97; normed fit index was calculated as (NFI)=0,97 and relative fit index was calculated as (RFI)=0,97. All fit indices were above acceptable values. Thus, the structural validity of the one-dimensional 39-point scale was accepted. The path graph for the scale items is shown in Figure 3.

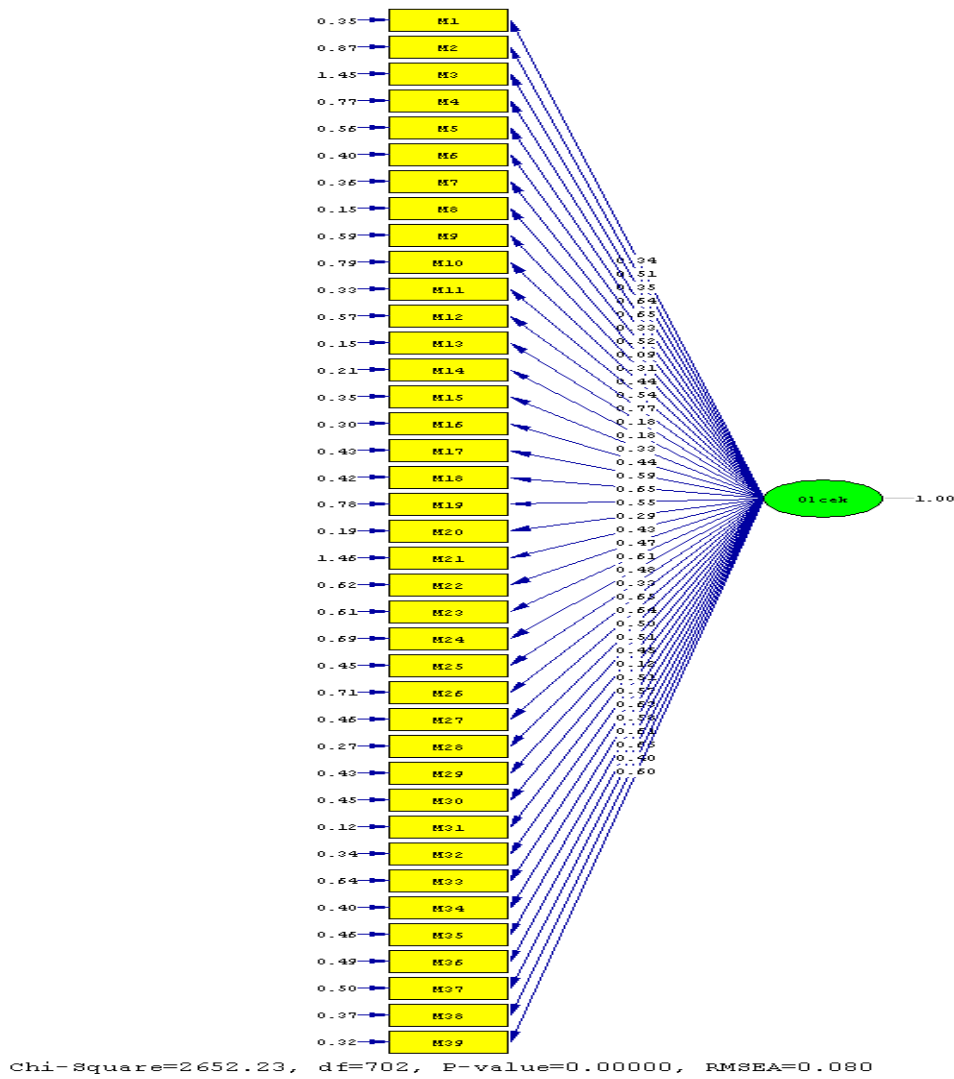


Figure 3: Path graph for social justice awareness scale items

The reliability of the scale was examined with the Cronbach Alpha coefficient. The Cronbach Alpha coefficient of the 18-item scale was found to be 0.782. The reliability coefficient varies between 0 and +1. The fact that the reliability coefficient takes values close to 1 means that the reliability and internal consistency between items are high and is desirable. The results of the item-total correlations of the scale items, also known as the validity coefficient are shown in Table 5.

**Table 5.** Cronbach alpha reliability coefficients of the scale items

Item Number	Item-Total Correlation	Alpha Coefficient If Item Is Deleted From Scale
m1	,488	,943
m2	,465	,944
m3	,263	,946
m4	,564	,943
m5	,645	,942
m6	,462	,943
m7	,646	,942
m8	,219	,945
m9	,376	,944
m10	,427	,944
m11	,689	,942
m12	,703	,941
m13	,443	,944
m14	,383	,944
m15	,462	,943
m16	,618	,943
m17	,684	,942
m18	,709	,942
m19	,512	,943
m20	,571	,943
m21	,315	,946
m22	,495	,943
m23	,605	,942
m24	,517	,943
m25	,440	,944
m26	,605	,942
m27	,705	,942
m28	,687	,942
m29	,611	,942
m30	,562	,943
m31	,343	,944
m32	,664	,942
m33	,562	,943
m34	,707	,942
m35	,605	,942
m36	,655	,942
m37	,654	,942
m38	,529	,943
m39	,719	,942

The item validity coefficients were found to range from 0.219 to 0.719. No item was removed from the scale since item-total correlations should be higher than 0.20 (Balci, 2009; Büyüköztürk, 2012). The Cronbach Alpha reliability coefficients in terms of internal consistency of the items in each factor were also found to be high.

#### 4. Discussion and Conclusions

There is no scale development study on social justice conducted with secondary school students (11-14 years old) in our country or abroad. Developing a scale appropriate for this age group will be useful and instructive in assessing students' opinions on social justice components and the emphasis they place on this subject.

Given the changing global circumstances, it is clear that the need for social justice is increasing day by day. It falls to schools to teach individuals at an early age the importance of equality and respect for diversity, which are the basis of social justice (Daniel et al., 2021: 10). For this reason, social justice studies with younger age groups would enable students to learn more about this topic and place a greater emphasis on it. In order to determine the perceptions of social justice of individuals of different age groups (administrators, teachers, teacher candidates, drama trainers) in Turkey, along with the measurement tools such as "Learning to Teach for Social Justice–Beliefs Scale" (Gezer, 2017), "Teachers' Perception of Social Justice Scale" (Gürgen, 2017), "Perception of Social Justice in Schools Scale" (Karacan, Bağlıbel & Bindak, 2015), "Social Justice Attitudes of Creative Drama Trainers Scale" (Keleş & Metinnam, 2018) and "Social Justice Leadership Scale" (Özdemir, Kütküt, 2015), which were originally developed by researchers, "The Turkish Adaptation of Learning to Teach for Social Justice–Beliefs Scale" was also used. In the "Social Justice Scale" study adapted to Turkish by Cırık (2015), a new scale was needed with the idea that the validity and reliability of the scale were conducted with university students and that the language used in the scale would not be suitable for secondary school students. It is believed that this scale will contribute to the literature as well. Therefore, this study aims to develop a measuring tool that measures the importance and value secondary school students attach to social justice.

Looking at international literature, it is seen that scale studies related to social justice are carried out with teachers and teacher candidates. "Quantifying Social Justice Advocacy Competency: Development of the Social Justice Advocacy Scale. (Dean, J. K., 2009). "Development and Psychometric Evaluation of the Social Justice Scale (SJS)" (Torres-Harding, S.R., Siers, B. & Olson, B., 2012), "Learning to Teach for Social Justice-Beliefs Scale" (Ludlow, H. L., Enterline, E. S. & Smith C., M., 2017.). As can be observed, there hasn't been a scale study of this problem with secondary school students (ages 11-14) in other countries.

This study aimed to develop a scale that will be used to determine the level of importance and value that secondary school students give to social justice. The process of scale development began with literature review and creating an item pool. The scale obtained in the study was examined by both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA and CFA were applied for the scale's structural validity. As a result of the EFA, 8 items were removed from the scale, and the remaining 39 items were found to have a single-factor structure that explains 58.87% of the total variance. The EFA and CFA values show that the scale is one-dimensional. The fact that the scale components together account for 58.87% of the total variance and that the scale components have a positive and high degree of relationship with each other and with the scale's total score can be taken as evidence that the scale is one-dimensional. The concept of social justice includes issues such as equality of opportunity, cultural differences, injustice in the economy, and lack of equality in education. The scale is assumed to be gathered in one dimension because the sample group considers these issues to be strongly correlated with one another. The Cronbach Alpha internal consistency reliability coefficient of the scale was calculated as 0.939. Item total correlations, which are the criteria of individual reliability of the items that make up the scale, were found between 0.30 and 0.72. As a result of exploratory factor analysis, the final version of the scale was applied to a new sample group and whether the obtained model was verified or not was tested with CFA. The model's goodness of fit indices obtained as a result of CFA showed that the



scale provided structure validity ( $\chi^2/df=3,77$ , GFI=0.97, CFI=0.99, RMSEA= 0.080, RFI=0,97 and SRMR=0.063).

Findings from statistical analyses conducted to examine the characteristics of the scale reveal that the scale can be used as a valid and reliable tool to determine the level of importance and value that secondary school students give to the subject of social justice. In addition, in this study, explanatory and confirmatory factor analyses were performed using different data sets. This is an important factor that highlights the validity and reliability of the study. This research was conducted with secondary school students. More extensive research can also be done with primary school students using methods such as observation, interview and etc. Longitudinal studies can be carried out with the same sample from secondary school to high school education. In this way, it can be determined how the given education affects students' perceptions of social justice.

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