

Psychometric Characteristics of the Social Justice Scale's Turkish Form and A Structural Equation Modeling¹

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Abstract

Problem Statement: In order to provide equal educational opportunities for students, teachers should encourage their students to have an effective voice concerning social justice. Studies reveal that teachers face trouble when transferring from the concept of social justice as theory to social justice as practice. A scale which will be developed on social justice may enable teachers to better comprehend the process of movement from attitude to action. Moreover, examining which factors affect teachers' behaviors towards social justice will contribute to the arrangement of social justice studies in learning environments.

Purpose of the Study: The primary aim of the study is to analyze the psychometric characteristics of the Social Justice Scale's Turkish form. The secondary aim is to determine the effects of social justice attitudes, subjective norms and perceived behavioral control on behavioral intentions.

Method: The scale adaptation process was conducted with 515 participants (376 female, 139 male), and structural equation modeling was conducted with 410 (313 female, 97 male) participants. The data were collected through the Social Justice Scale. In analyzing the data, Pearson Correlation Coefficients, confirmatory factor analysis and Cronbach Alpha coefficients were utilized. The effects of social justice attitudes, subjective norms and perceived behavioral control on behavioral intentions were analyzed through structural equation modeling.

Findings and Results: Linguistic equivalence of the scale was obtained $p=.00$, $p<.01$. After confirmatory factor analysis, the fit indices $\chi^2=671.15$,

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$df=246$, $\chi^2/df=2.72$, GFI=.90, AGFI=.88 were found to be at an acceptable level; RMSEA=.05, NFI=.96, NNFI=.97, CFI=.97, SRMR=.04 indices demonstrated good fit. The internal and external consistency coefficients and corrected item-total correlations of the scale were found to be high. After the model test, the values of $\chi^2=570.93$, $df=246$, $\chi^2/df=2.32$, GFI=.90, AGFI=.87 showed that model data consistency was at an acceptable level; the values of RMSEA=.05, NFI=.95, NNFI=.97, CFI=.97, SRMR=.05 demonstrated a good fit.

Conclusion and Recommendations: It was determined that the Turkish form of the scale has 24 items that fall under four factors. The reliability coefficients of the scale were found to be high. It was revealed that the effects of attitudes towards social justice, perceived behavioral control and subjective norms on behavioral intentions were significant. It is concluded that the Turkish form of the scale will help measure prospective teachers' views about social justice and thus will contribute to filling a gap in the field. Further researches are recommended to provide evidence for the concurrent validity of the scale.

Keywords: Equality, educational opportunity, confirmatory factor analysis, teacher education

Introduction

It can be stated that educators who are supposed to keep a balance of equality and justice among their students cannot sometimes hold the balance and give adequate support to all their students. As Bradley, Werth, and Hastings (2012) specified, the means of providing such a balance of equality and justice for all the classes in a society have been argued by different philosophers from Aristotle and Socrates to contemporary activists such as Freire and Beauvoir on a large scale. In the very essence of these arguments, there lies the interaction between education and society. When this interaction is considered from the point of education, it can be said that "education is not the ultimate lever for social transformation, but without it transformation cannot occur" (Freire, 1998, p. 37). When assessed from the society's perspective, "it is vital that the school and community recognize the importance of community involvement in education and the involvement of students in the community" (Goulet & Goulet, 2014, p. 210). Altogether, these two outlooks disclose the fact that the interaction between education and society has an undeniable significance. This perspective has enhanced studies by educators intending to provide equal educational opportunities for students who have come from different social structures (Capper & Young, 2014; Constantine, Hage, Kindaichi, & Bryant, 2007; Goodman et al., 2004; Lemley, 2014; Leonard & Moore, 2014). In the essence of these studies, there exist social justice objectives which are intended to support cultural pluralism.

According to Prilleltensky (2001), social justice should "promote fair and equitable allocation of bargaining powers, resources, and obligations in society in consideration of people's differential power, needs, and abilities to express their

wishes" (p. 754). Correspondingly, Fouad, Gerstein, and Toporek (2006) also argue that social justice requires being fair and equitable in distributing social resources for every member of the society, regardless of their race, gender, ability status, sexual orientation, physical makeup, or religious creed. To realize all of these, the society itself has to work in a collaborative, democratic, participatory and inclusive way (Bell, 2007). Therefore, it can be argued that allowing social justice applications in learning environments which display themselves in a micro-dimensional size in social structure will lead to positive contributions to the structure of the society.

In social justice applications, the interaction among teacher, student and learning environment is crucial. Teachers and students do not only bring their own cultural backgrounds into the classroom, but also interpret the classroom culture and social life they find there (Lalas, 2007). In light of these interpretations, the notions of equality and justice gain profound importance for the stakeholders in the learning environments as many studies point out. For instance, Aydin and Tonbuloglu (2014) stated that educators primarily emphasize equality, democracy and justice in learning environments. Similarly, Fuentes, Chanthongthip, and Rios (2010) concluded that university students who had social justice education have more attention to equality and justice. In another study, Torres-Harding, Diaz, Schamberger, and Carollo (2015) mentioned that taking service-learning courses was related to university students' social justice attitudes, intentions and actions. Also Littenberg-Tobias (2014) stated that participating in some service programs may influence university students' attitudes and understandings of social justice. Thus, the students' sensitivity to these concepts in human life is closely associated with social justice education (Banks, 2009; Goodman & Burton, 2012; Leonard & Moore, 2014). It is because social justice education, which has a student-centered, cooperative, empirical, intellectual, analytical and multicultural structure (Wade, 2004), enables students to see not only their differences, but also their common ground (Capper & Young, 2014). The key role in this context is played by teachers.

Teachers who aim to create differences in their students' lives should be sensitive to the notion of equal opportunities in education (Villegas, 2007), should help students develop strategies to solve social problems (Brown & Brown, 2011; Wade, 2004) and should support their students in having an effective voice in terms of social justice (Garii & Rule, 2009). In order to realize this necessity, it is thought that teacher training education should include social justice subjects. Related studies carried out in this context also support this view. For example, Leonard and Moore (2014) and Page (2009) found that prospective teachers taking social justice education gave more attention to equality and justice. Tinkler, Hannah, Tinkler, and Miller (2015) mentioned that social justice service-learning experiences support the social justice goals of prospective teachers. Rios and Montecinos (1999), in a similar study, found that prospective teachers pointed out the importance of social justice in their education and that the notion of social justice should be a part of their instructional curriculum. On the other hand, a study conducted by Tomul, Celik, and Tas (2012) revealed that according to prospective teachers, in-service teachers behave in a discriminative way in terms of students' socio-economic features, political views and

beliefs. In a similar study by Ersoy (2014), it was detected that, since teachers do not have adequate knowledge and experience concerning effective and democratic citizenship education, primary students belonging to lower socio-economic levels cannot exercise their rights adequately compared to those who come from higher socio-economic levels. Thomas (2007) in his study argues that teachers who intend to maintain social justice implementations are not supported enough. The inadequacy of social justice implementations of in-service teachers reveals the fact that problems emerge in the transition of social justice from theory to practice.

Even though the notions of equality and justice are frequently emphasized in literature, there have been arguments over how to implement social justice in learning environments (Speight & Vera, 2009). Vera and Speight (2003) argue that solely focusing on theoretical knowledge could be important for researchers; however, allotting efforts to implementation will enable social justice to exist as a dynamic structure. Correspondingly, Torres-Harding, Siers, and Olson (2012) underline the fact that the relationship between attitudes and actions requires more applied research. Therefore, though not sufficient for now, it can be stated that in the literature there is an increasing tendency concerning implementation of the notion of social justice in studies (Bradley et al., 2012).

At this point, there appears to be a question over how the teachers' behaviors towards social justice implementations will be evaluated and directed. Torres-Harding et al. (2012) hold that a scale that can be developed in the field of social justice will help researchers and educators in terms of understanding the process of moving from attitudes to action. Analyzing the literature, it is clear that there are scales which evaluate individuals' behaviors concerning social justice in general; however, the number of scales used to evaluate which factors at what levels effectively influence behaviors is limited (Colquitt, 2001; Rasinski, 1987). In order to remove the stated limitation, Torres-Harding et al. (2012), developed the Social Justice Scale (SJS) based on Ajzen's (1991) social cognitive model. Ajzen (1991) in his model states that individuals' attitudes towards the action, subjective norms around the action and their perceived behavioral control of the action predict the behavioral intention.

The component of behavioral intention in the model points out that an individual's intention to act affects their behavior in the future; the component of attitudes towards the action is related with the individual's evaluation of the behavior's convenience level; the component of subjective norms relates to the individual's perception of social support or pressure from his/her environment in terms of performing the action; the component of perceived behavioral control of action refers to the individual's perception of self-efficacy about himself/herself regarding the difficulty of behavior. The three elements in the model could show differences in accordance with the significance level of behavioral intention and situation, as well as the feature of the behavior. In other words, these three predictors may affect behavioral intentions independently or all together.

All in all, SJS was developed in order to measure attitudes concerning social justice, values, perceived behavioral control and behavioral intentions. It is thought that searching the psychometric characteristics of SJS's Turkish form, and thus bringing it into the literature, will contribute to the researches regarding social justice and social justice implementations to become integrated into learning environments. Therefore, the primary aim of this study is to analyze linguistic equivalence, validity and reliability of SJS. The secondary aim is to test Ajzen's (1991) model upon whose basis the scale was constructed. Within the framework of the second aim, the effects of "social justice attitudes," "subjective norms" and "perceived behavioral control" (independent variables) on "behavioral intentions" (dependent variable) were investigated.

Method

Research Design

This research is comprised of two different studies: scale adaptation and structural equation modeling (SEM). In scale adaptation, since the existing situation remained to be determined, the data gained through SJS were analyzed by applying a survey method, as Fraenkel and Wallen (2009) suggested. In the SEM study, as it was thought that, based on Ajzen's (1991) model, there would be a cause and effect relationship between "social justice attitudes," "perceived behavioral control," "subjective norms," and "behavioral intentions," causal research design was preferred.

Research Sample

This research was carried out in two different study groups; the first group being in the scale adaptation study, the other being in the SEM. The first study group was comprised of 515 prospective teachers attending pedagogical formation programs at Marmara University, Mimar Sinan Fine Arts University and Yildiz Technical University in the 2013-2014 Academic Year. The second study group included 410 prospective teachers attending pedagogical formation programs at Mimar Sinan Fine Arts University in the 2014-2015 Academic Year. The demographic characteristics of the participants are displayed in Table 1.

Table 1.

Frequency and Percentage Distribution of Participants' Demographic Characteristics

	First Group		Second Group	
	f	%	f	%
Gender				
Female	376	73.0	313	76.3
Male	139	27.0	97	23.7
Education Level				
Undergraduate	411	79.8	346	84.4
Graduate	104	20.2	64	15.6

Table 1 continue...

	First Group		Second Group	
	f	%	f	%
Graduation				
Turkish	95	18.4	113	27.6
History	24	4.7	62	15.1
Music	90	17.5	78	19.0
Painting	101	19.6	49	12.0
Mathematics	29	5.6	57	13.9
Physics	36	7.0	-	-
Theology	62	12.0	-	-
Art and Design	78	15.1	-	-
Sociology	-	-	51	12.4
Total	515	100	410	100

Research Instrument and Procedure

The data of the study were collected through SJS developed by Torres-Harding et al. (2012). The scale has four factors (social justice attitudes, perceived behavioral control, subjective norms and behavioral intentions) and 24 items in total. The first factor consists of 11 items concerning social justice attitudes. An example of these items includes, "Allow others to have meaningful input into decisions affecting their lives." In the second factor, there are five items intended to measure the individuals' perceived behavioral controls about social justice. An example of these items includes, "I am capable of influencing others to promote fairness and equality." The third factor contains four items to measure subjective norms about social justice. An example of these items includes, "Other people around me are supportive of efforts that promote social justice." The fourth factor is comprised of four items to measure behavioral intentions toward social justice in the future. An example of these items includes, "In the future, I will do my best to ensure that all individuals and groups in my community have a chance to speak and be heard." Responses were scored on a 7-point scale ranging from strongly disagree (1) to strongly agree (7).

In order to adapt SJS into Turkish, permission was obtained from S.R. Torres-Harding via e-mail. Three lecturers who are experts in psychological counseling and guidance, curriculum development and instruction, measurement and evaluation were asked for their opinions on the scale's cultural convenience, clarity etc. During the process of translation, two English Language experts translated the scale into Turkish and then two other experts made the reverse translation. In accordance with the common opinions of the experts and the researcher, the problematic items were corrected on the Turkish form of the scale. Then, the Turkish form was examined by Turkish Language experts in the context of language and expression. English and Turkish forms of the scale, respectively, were applied to English Language Teaching

students attending their 4th class in a four-week interval, and the consistency between the forms was examined. Applying the scale to the participants was realized by four lecturers including the researcher. The participants were informed of the aim of the study, features of the scale and privacy of the data in order to get them to involve themselves in the study voluntarily.

Validity and Reliability

The factor structure of the original scale was analyzed through confirmatory factor analysis (CFA). After the analysis, it was discovered that the fit indices, $\chi^2=789.14$, $df=246$, $p=.00$, RMSEA=.09, NFI=.95, CFI=.97, GFI=.80, AGFI=.75, PGFI=.65, were at an acceptable level. The factor loading values of the items were calculated between .55 and .91, and after reliability analysis, the Cronbach Alpha coefficients in factors were found to range from .82 to .95. Finally, the inter-factor correlation coefficients were determined to be between .34 and .58.

Data Analysis

In the process of linguistic equivalence, the consistency between English and Turkish applications was analyzed through Pearson Correlation Coefficient. As the scale's factor numbers and consistency between factors and indicators (Kline, 2011) were specified in the original form, factor consistency with the data obtained from the first study group was tested through CFA (Bentler & Bonett, 1980; Brown, 2015). In order to specify the internal consistency of the scale, the Cronbach Alpha Coefficients of the factors and the total of the scale were examined. For the purpose of specifying on what level the items differentiate the participants, corrected item-total correlation was calculated and independent samples *t* test was realized between the lower 27% and the upper 27% groups. The external consistency of the scale was calculated through test-retest applications performed in four-week intervals. The effects of social justice attitudes, subjective norms and perceived behavioral control on behavioral intentions were analyzed by means of SEM. SEM is a comprehensive and flexible approach in modeling the relationships between observed and latent variables (Hoyle & Smith, 1994; Hu & Bentler, 1998). Additionally, its capability to provide the chance of evaluation and correction about a theoretical model (Anderson & Gerbing, 1988), its offering the chance of controlling measurement errors and its utility to provide information about the consistency level of the model make SEM an influential method (Frazier, Tix, & Barron, 2004). LISREL 8.80 and SPSS 17.0 were used for the analysis of the data.

Results

Linguistic Equivalence

Between four-week interval applications of the SJS's English and Turkish forms ($N=33$), a positive and significant correlation was found in items .63 and .84; in factors .76 and .84; in the total of the scale .86, $p=.00$, $p<.01$ (Table 2). Findings show

that the consistency between applications is at an acceptable level. Thus the scale's linguistic equivalence was acquired.

Table 2.

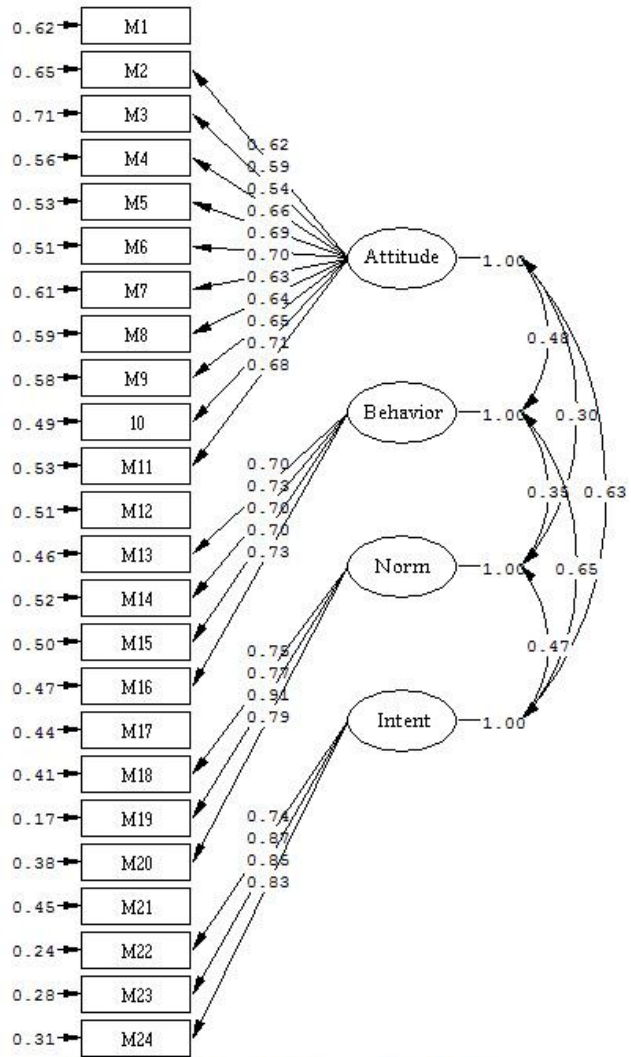
Correlation Coefficients of the SJS' Linguistic Equivalence

Item	r	Item	r	Item	r	Item	r
1	.76*	7	.76*	13	.73*	19	.75*
2	.75*	8	.79*	14	.74*	20	.68*
3	.75*	9	.76*	15	.82*	21	.63*
4	.68*	10	.63*	16	.77*	22	.73*
5	.80*	11	.63*	17	.72*	23	.83*
6	.70*	12	.81*	18	.82*	24	.84*
Factor							
Attitude	.81*	Behavior	.84*	Norm	.76*	Intention	.84*
Total	.86*						

(N=33), * $p < .01$

First-Order Confirmatory Factor Analysis

In the factor analysis, as Brown (2015) suggested, to arrange the relationships between indicators, maximum likelihood technique, which enables a statistical evaluation over how to perform a better factor analysis, was applied. After CFA, the fit indices $\chi^2=671.15$, $df=246$, $\chi^2/df=2.72$, GFI=.90, AGFI=.88 were found to be at an acceptable level; RMSEA=.05, NFI=.96, NNFI=.97, CFI=.97, SRMR=.04 indices showed good fit (Hu & Bentler, 1998; Hoyle & Smith, 1994; Schermelleh-Engel, Moosbrugger, & Muller, 2003). The explained variances ranged from .29 to .51 in social justice attitude factor; ranged from .48 to .54 in perceived behavioral control factor; ranged from .56 to .83 in subjective norms factor; and, ranged from .55 to .76 in behavioral intention factor. As for factor loadings (Figure 1), they ranged from .54 to .71 in the first factor; from .70 to .73 in the second factor; from .75 to .91 in the third factor; and, from .74 to .87 in the fourth factor. Findings showed that the scale, as in the original form, consisted of 24 items falling under four factors.



Chi-Square=671.15, df=246, P-value=0.00000, RMSEA=0.058

Figure 1. SJS first-order confirmatory factor analysis.

Second-Order Confirmatory Factor Analysis

As Kline (2011) suggested, in order to test for whether the four factors are components of a higher latent structure (social justice behaviors), something which cannot be measured directly, the second order CFA was applied. The fit indices of the second order CFA were found to be similar to that of the first order CFA fit indices: $\chi^2=671.64$, $df=248$, $\chi^2/df=2.70$, GFI=.90, AGFI=.88, RMSEA=.05, NFI=.96, NNFI=.97, CFI=.97, SRMR=.04. When explained variances were examined, it was found that 45% of the variability of social justice behavior was expressed by social

justice attitude factor; 49% by perceived behavioral control factor; 24% by subjective norms factor and 88% by behavioral intention factor. The factor loadings of the second order CFA were found to be the same as the first order CFA factor loadings (Figure 1, Figure 2). When the levels of factor effect on social justice behaviors are taken into consideration, it was specified that standardized direct effect size of the first factor was .67; of the second factor .70; of the third factor .49 and of the fourth factor .94. Kline (2011) determined standardized direct effect sizes as <.10 small; about .30 medium and >.50 large. Values found showed that factors significantly explained the latent variable of social justice behavior.

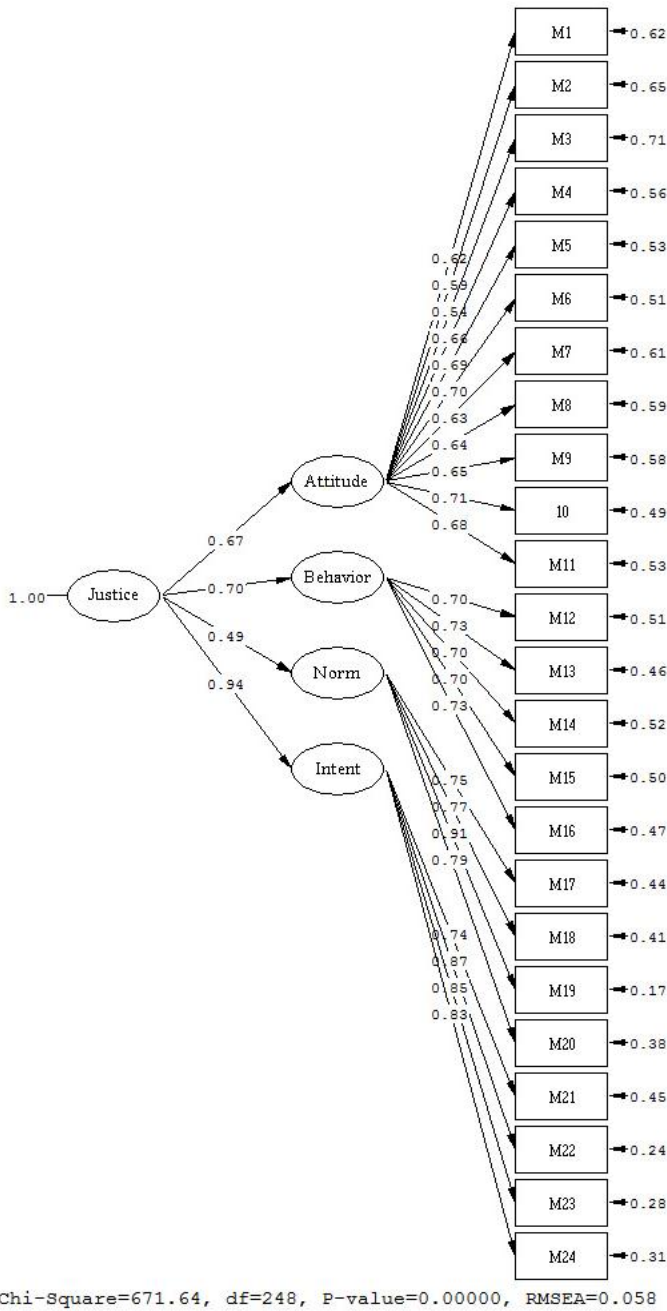


Figure 2. SJS second-order confirmatory factor analysis.

Internal Consistency

The internal consistency coefficients of the scale in factors were found to fall between .84 and .92; in the total of the scale they were found to be .92. This finding showed that the internal consistency coefficients of the scale were high. Corrected item-total correlations in factors ranged from .55 to .82, and in total scale ranged from .41 to .73 (Table 3). Correspondingly, *t* test fulfilled between the grades of lower 27% and upper 27% demonstrated that the difference between all items was significant $p=.00$, $p<.05$. Findings suggested that items could differentiate the participants. Positive and significant relationships ranged from .26 to .61 in factors and from .61 to .85 in the total scale $p=.00$, $p<.01$ (Table 4). Correlation coefficients between factors indicated that factors measured different sub-dimension though they belonged to the same primary structure.

Table 3.*The Reliability Coefficients of the SJS*

Factors	Items	Cronbach Alpha Coefficients	Corrected Item-Total Correlations	
			Factor	Total
		.92		
Attitude	1		.66	.56
	2		.66	.57
	3		.55	.50
	4		.74	.63
	5		.71	.63
	6		.74	.67
	7		.74	.64
	8		.74	.63
	9		.64	.58
	10		.72	.63
	11		.80	.69
		.84		
Behavior	12		.66	.48
	13		.64	.54
	14		.65	.54
	15		.64	.58
	16		.66	.48
		.88		
Norm	17		.68	.42
	18		.73	.50
	19		.82	.49
	20		.72	.41
		.90		
Intention	21		.70	.69
	22		.82	.73
	23		.81	.66
	24		.79	.67
Total		.92		

Table 4.*Correlation Coefficients, Means and Standard Deviations for the Factors and Total of the SJS*

Factors	1	2	3	4	5
1.Attitude	-	.47*	.26*	.61*	.85*
2.Behavior		-	.31*	.58*	.72*
3.Norm			-	.41*	.61*
4.Intention				-	.82*
5.Total					-
M	6.41	5.82	5.19	6.04	6.02
SD	.90	.97	1.43	1.18	.81

(N=515), * $p < .01$ *External Consistency*

In order to determine the external consistency of the scale, test-retest applications (N=31) were performed in four-week intervals. At the end of applications, correlation coefficients in items were found between .70 and .91; in factors between .85 and .95; and, in the total of the scale they were found to be .95, $p = .00$, $p < .01$ (Table 5). The results disclosed that the consistency between the two applications was at an adequate level, and the external consistency of the scale was obtained.

Table 5.*Correlation Coefficients of the SJS' External Consistency*

Item	r	Item	r	Item	r	Item	r
1	.81*	7	.91*	13	.77*	19	.75*
2	.76*	8	.86*	14	.81*	20	.80*
3	.85*	9	.71*	15	.70*	21	.88*
4	.82*	10	.77*	16	.83*	22	.80*
5	.79*	11	.76*	17	.82*	23	.77*
6	.84*	12	.77*	18	.73*	24	.82*
Factor							
Attitude	.95*	Behavior	.87*	Norm	.85*	Intention	.87*
Total	.95*						

(N=31), * $p < .01$ *The Structural Equation Model Regarding Attitude, Behavior, Norm and Intention*

Within the framework of the study's second aim, the effects of social justice attitudes, perceived behavioral control and subjective norms on behavioral intentions were analyzed through SEM (Figure 3). Among the fit indices, the values of $\chi^2 = 570.93$, $df = 246$, $\chi^2/df = 2.32$, GFI = .90, AGFI = .87 showed that model data consistency was at an acceptable level; the values of RMSEA = .05, NFI = .95, NNFI = .97, CFI = .97, SRMR = .05 demonstrated a good fit. When standardized direct effect sizes were taken into consideration, it was noted that attitude (.35) and perceived behavioral control

(.47) affected behavioral intention at a medium level; on the other hand, subjective norms (.11) affected behavioral intention at a low level. Analyzing the explained variances, attitudes, perceived behavioral control and subjective norms predicted 56% of the variance of behavioral intention. From the findings, it can be stated that the model was verified and the total effects of attitude, perceived behavioral control and subjective norms on behavioral intention were positive and significant.

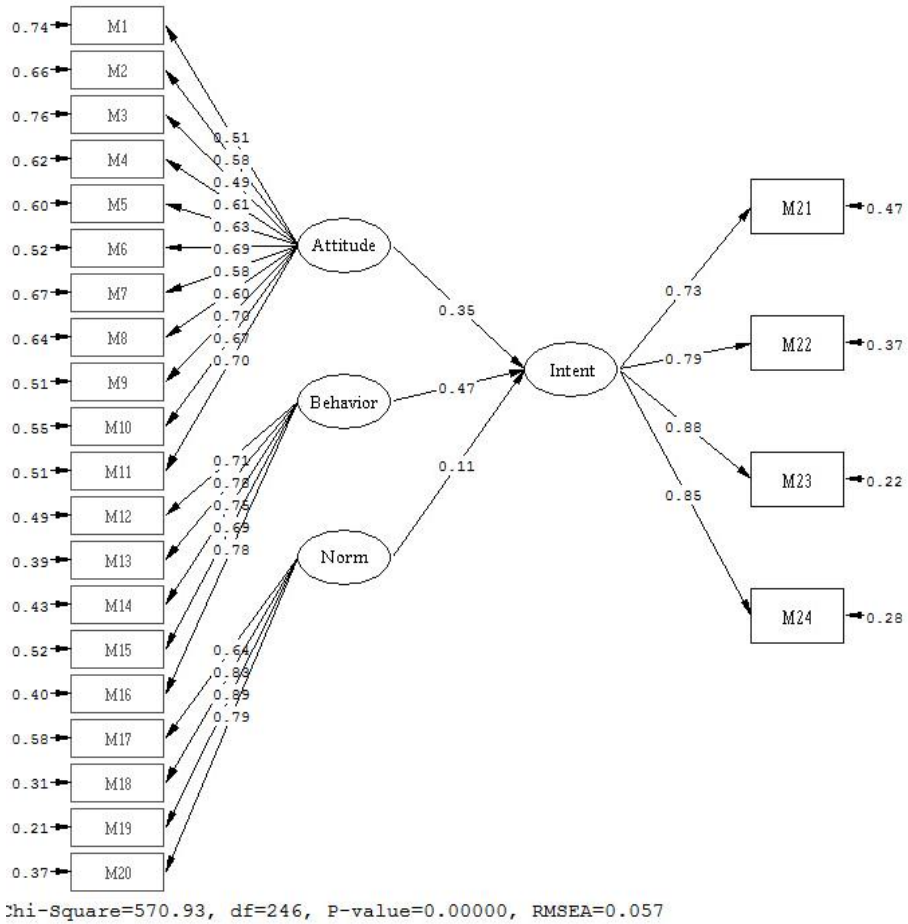


Figure 3. Structural model for the second aim of the study.

Conclusions and Recommendations

The primary aim of this study was to adapt SJS, developed by Torres-Harding et al. (2012), into Turkish. High consistency level between SJS' English and Turkish applications showed that the scale provided linguistic equivalence. At the end of the first order CFA, it was found that model data consistency was adequate and

explained variances ranged from .29 to .83. From the findings, the Turkish form of the scale, similar to its original form, consists of 24 items grouped under four factors (social justice attitudes, perceived behavioral control, subjective norms and behavioral intentions). The fit indices gained from the second order CFA showed that factors explained the latent variable of social justice behavior significantly. Correlation coefficients between factors indicated that factors measured different sub-dimensions though they belonged to the same primary structure.

High internal consistency coefficients of the scale in factors and in the total of the scale indicated that the scale was reliable. Similarly, high levels of corrected item-total correlation and the difference between the lower 27% and the upper 27% being significant in all items displayed demonstrates that items can differentiate the participants. Correlation coefficients after the test-retest applications were at an acceptable level, which demonstrated that the external consistency of the scale was ensured. In conclusion, the data gained from the Turkish form of SJS exhibited adequate evidences in terms of validity and reliability.

The second aim of the study was to investigate the effects of "social justice attitudes," "perceived behavioral control" and "subjective norms" (independent variables) on "behavioral intentions" (dependent variable). After applying SEM, model data consistency proved to be adequate, and the effects of independent variables on the dependent variable were found to be positive and significant. It was determined that the independent variables explained 56% of the variance of the dependent variable. From the findings, it was concluded that the model was verified and prospective teachers' evaluation of social justice behaviors' convenience level, perception of social support or pressure from their environment in terms of acting behaviors or not, and their perception of self-efficacy with regard to difficulty level of the behavior all predicted their intention to implement the aforesaid behaviors in the future.

When interpreting the findings, some limitations should be taken into consideration. Firstly, the data was gained from prospective teachers attending three universities in Istanbul. With data which can be obtained from different in-service teachers and prospective teachers attending different universities, the reconstruction of the reliability and validity analysis could increase the generalizability of the scale. Therefore, the researchers can survey prospective teachers' views concerning social justice via longitudinal studies throughout their educational process, as well as views concerning their duties. Secondly, the scale's concurrent validity could not be analyzed. Concurrent validity of the scale can be examined through the scales related to social justice issues. Thirdly, prospective teachers' views about social justice were measured through SJS. However, their behaviors regarding social justice were not tested via this scale. It is thought that studying prospective teachers' behaviors by observing them, and in this way determining SJS' prediction level for these behaviors, is worth further investigation.

Outside of its limitations, this study has strengths, as well. In the literature, there is no Turkish scale to measure prospective teachers' views concerning social justice.

The Turkish form of SJS is thought to fill this deficiency in the field. Evaluating prospective teachers' views concerning social justice, researchers and educators can arrange convenient social justice educational environments. Researchers can study prospective teachers' opinions, especially those who have graduated from related fields, regarding social justice by analyzing social justice topics in the instructional curriculum. In this way, they may contribute to associated instructional curriculum with prospective teachers' social justice education. Researchers can evaluate the efficiency and productivity of learning environments which are arranged for prospective teachers' social justice education. Lastly, by using the Turkish and English forms of SJS, social justice views of prospective teachers who come from different cultures can be studied comparatively.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Aydin, H., & Tonbuloglu, B. (2014). Graduate students perceptions' on multicultural education: A qualitative case study. *Eurasian Journal of Educational Research*, 57, 29-50.
- Banks, J.A. (2009). Human rights, diversity, and citizenship education. *The Educational Forum*, 73, 100-110.
- Bell, L.A. (2007). Theoretical foundations for social justice education. In M. Adams, L.A. Bell, & P. Griffin (Eds.), *Teaching for diversity and social justice* (pp. 1-14). NY: Taylor & Francis.
- Bentler, P.M., & Bonett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588-606.
- Bradley, J.M., Werth, J.L., & Hastings, S.L. (2012). Social justice advocacy in rural communities: Practical issues and implications. *The Counseling Psychologist*, 40, 363-384.
- Brown, K.D., & Brown, A.L. (2011). Teaching k-8 students about race: African Americans, racism, and the struggle for social justice in the U.S. *Multicultural Education*, 19(1), 9-13.

- Brown, T.A. (2015). *Confirmatory factor analysis for applied research*. NY: The Guilford Press.
- Capper, C.A., & Young, M.D. (2014). Ironies and limitations of educational leadership for social justice: A call to social justice educators. *Theory Into Practice*, 53, 158-164.
- Colquitt, J. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86(3), 386-400.
- Constantine, M.G., Hage, S.M., Kindaichi, M.M., & Bryant, R.M. (2007). Social justice and multicultural issues: Implications for the practice and training of counselors and counseling psychologists. *Journal of Counseling & Development*, 85, 24-29.
- Ersoy, A.F. (2014). Active and democratic citizenship education and its challenges in social studies classrooms. *Eurasian Journal of Educational Research*, 55, 1-20.
- Fouad, N.A., Gerstein, L.H., & Toporek, R.L. (2006). Social justice and counseling psychology in context. In R.L. Toporek, L.H. Gerstein, N.A. Fouad, G. Roysircar, & T. Israel (Eds.), *Handbook for social justice in counseling psychology: Leadership, vision, and action* (pp. 1-16). London: Sage Publications.
- Fraenkel, J.R., & Wallen, N.E. (2009). *How to design and evaluate research in education*. NY: McGraw-Hill.
- Frazier, P.A., Tix, A.P., & Barron, K.E. (2004). Testing moderator and mediator effects in counseling psychology. *Research Journal of Counseling Psychology*, 51(1), 115-134.
- Freire, P. (1998). *Pedagogy of freedom: Ethics, democracy, and civic courage* (P. Clarke, Trans.). Lanham: Rowan & Littlefield Publishers.
- Fuentes, R., Chanthongthip, L., & Rios, F. (2010). Teaching and learning social justice as an "intellectual community" requirement: Pedagogical opportunities and student understandings. *Equity & Excellence in Education*, 43, 357-374.
- Garii, B., & Rule, A.C. (2009). Integrating social justice with mathematics and science: An analysis of student teacher lessons. *Teaching and Teacher Education*, 25(3), 490-499.
- Goodman, L.A., Liang, B., Helms, J.E., Latta, R.E., Sparks, E., & Weintraub, S.R. (2004). Training counseling psychologists as social justice agents: Feminist and multicultural principles in action. *The Counseling Psychologist*, 32, 793-837.

- Goodman, R., & Burton, D. (2012). What is the nature of the achievement gap, why does it persist and are government goals sufficient to create social justice in the education system? *Education, 40*, 500-514.
- Goulet, L.M., & Goulet, K.N. (2014). *Teaching each other: Nehinuw concepts and indigenous pedagogies*. Vancouver: UBC Press.
- Hoyle, R.H., & Smith, G.T. (1994). Formulating clinical research hypotheses as structural equation models: A conceptual overview. *Journal of Consulting and Clinical Psychology, 62*(3), 429-440.
- Hu, L., & Bentler, P.M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods, 3*(4), 424-453.
- Kline, R.B. (2011). *Principles and practice of structural equation modeling*. NY: The Guilford Press.
- Lalas, J. (2007). Teaching for social justice in multicultural urban schools: Conceptualization and classroom implication. *Multicultural Education, 14*(3), 17-21.
- Lemley, C.K. (2014). Social justice in teacher education: Naming discrimination to promote transformative action. *Critical Questions in Education, 5*(1), 26-51.
- Leonard, J., & Moore, C.M. (2014). Learning to enact social justice pedagogy in mathematics classrooms. *Action in Teacher Education, 36*, 76-95.
- Littenberg-Tobias, J. (2014). Does how students serve matter? What characteristics of service programs predict students' social justice attitudes? *Journal of College & Character, 15*(4), 219-233.
- Page, M. (2009). Pedagogy of privilege: White preservice teachers learn about whiteness. *Teaching & Learning: The Journal of Natural Inquiry & Reflective Practice, 24*(1), 3-21.
- Prilleltensky, I. (2001). Value-based praxis in community psychology: Moving towards social justice and social action. *American Journal of Community Psychology, 29*(5), 747-778.
- Rasinski, K.A. (1987). What's fair is fair-or is it? Value differences underlying public views about social justice. *Journal of Personality and Social Psychology, 53*(1), 201-211.
- Rios, F., & Montecinos, C. (1999). Advocating social justice and cultural affirmation: Ethnically diverse preservice teachers' perspectives on multicultural education. *Equity & Excellence in Education, 32*(3), 66-76.

- Schermelleh-Engel, K., Moosbrugger, H., & Muller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Speight, S.L., & Vera, E.M. (2009). The challenge of social justice for school psychology. *Journal of Educational and Psychological Consultation*, 19, 82-92.
- Thomas, A.B. (2007). Supporting new visions for social justice teaching: The potential for professional development networks. *Penn GSE Perspectives on Urban Education*, 5(1), 1-18.
- Tinkler, B., Hannah, C., Tinkler, A., & Miller, E. (2015). The impact of a social justice service-learning field experience in a social foundations course. *Critical Questions in Education*, 6(1), 16-29.
- Tomul, E., Celik, K., & Tas, A. (2012). Justice in the classroom: Evaluation of teacher behaviours according to students' perceptions. *Eurasian Journal of Educational Research*, 48, 59-72.
- Torres-Harding, S.R., Siers, B., & Olson, B.D. (2012). Development and psychometric evaluation of the social justice scale (SJS). *Am J Community Psychol*, 50, 77-88.
- Torres-Harding, S.R., Diaz, E., Schamberger, A., & Carollo, O. (2015). Psychological sense of community and university mission as predictors of student social justice engagement. *Journal of Higher Education Outreach and Engagement*, 19(3), 89-112.
- Vera, E.M., & Speight, S.L. (2003). Multicultural competence, social justice, and counseling psychology: Expanding our roles. *The Counseling Psychologist*, 31, 253-272.
- Villegas, A.M. (2007). Dispositions in teacher education a look at social justice. *Journal of Teacher Education*, 58, 370-380.
- Wade, R. (2004). Citizenship for social justice. *Kappa Delta Pi Record*, 40, 64-68.

Sosyal Adalet Ölçeği Türkçe Formunun Psikometrik Özellikleri ve Bir Yapısal Eşitlik Modellemesi

Atf:

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Özet

Problem Durumu: Öğrencileri arasında eşitlik ve adalet dengesini sağlamak durumunda olan eğitimcilerin zaman zaman bu dengeyi kuramadıkları; öğrencilerine yeterli derecede destek olamadıkları gözlenmektedir. Öğrenci yaşamında farklılıklar yaratmayı hedefleyen öğretmenlerin, eğitimde fırsat eşitliği konusunda duyarlı olmaları; öğrencilerinin, sosyal problemlerin çözümüne yönelik stratejiler geliştirmelerini ve sosyal adaletle ilgili etkili bir sese sahip olmalarını desteklemeleri gerekir. Ancak, ilgili araştırmalar incelendiğinde, öğretmenlerin sosyal adalet uygulamalarının yeterli düzeyde olmadığı; sosyal adaleti kuramsal boyuttan uygulama boyutuna aktarmada sorunlar yaşadıkları görülmektedir. Öğretmenlerin sosyal adalet uygulamalarına yönelik sergiledikleri davranışların nasıl yönlendirilebileceğinin araştırılmasının ilgili sorunların çözümüne katkı sağlayacağı ifade edilebilir. Bununla birlikte, sosyal adaletle ilgili geliştirilecek olan bir ölçme aracının, öğretmenlerin tutumdan eyleme geçme sürecinin anlaşılması konusunda araştırmacılara ve eğitimcilere yardımcı olacağı düşünülebilir. Aynı zamanda, öğretmenlerin sosyal adaletle yönelik davranış eğilimlerinin hangi faktörlerin etkisi altında olduğunun incelenmesinin de öğrenme ortamlarında düzenlenecek olan sosyal adalet çalışmalarına katkı sağlayacağı söylenebilir.

Araştırmanın Amacı: Bu araştırmanın birinci amacı, Sosyal Adalet Ölçeği Türkçe formunun dilsel eşdeğerlik, geçerlik ve güvenilirlik çalışmasının yapılmasıdır. Araştırmanın ikinci amacı ise sosyal adaletle ilgili tutumların, öznel normların ve algılanan davranış kontrolünün davranış eğilimleri üzerindeki etkilerinin incelenmesidir.

Araştırmanın Yöntemi: Bu araştırma, ölçek uyarlama ve yapısal eşitlik modellemesi olmak üzere iki farklı çalışmayı kapsamaktadır. Ölçek uyarlama çalışmasında, tarama yöntemi; yapısal eşitlik modellemesinde ise nedensel desen kullanılmıştır. Ölçek uyarlama çalışması, üç farklı devlet üniversitesinden 515 öğretmen adayının (376 kadın, 139 erkek) katılımıyla; yapısal eşitlik modellemesi ise bir devlet üniversitesinden 410 öğretmen adayının (313 kadın, 97 erkek) katılımıyla yürütülmüştür. Araştırma verileri, Sosyal Adalet Ölçeği ile toplanmıştır. Ölçek, dört faktör altında (sosyal adaletle yönelik tutum, algılanan davranışsal kontrol, öznel normlar, davranış sergileme eğilimi) toplam 24 maddeden oluşmaktadır. Birinci faktörde 11, ikinci faktörde beş, üçüncü ve dördüncü faktörde dört madde bulunmaktadır. Ölçeğin faktör yapısı doğrulayıcı faktör analizi ile belirlenmiştir.

Güvenirlilik analizleri sonucunda, alfa katsayılarının faktörlerde .82 ile .95 arasında değiştiği bulunmuştur. Ölçeğin Türkçeye uyarlanması sürecinde, kültüre uygunluğu, açıklığı vb. konularda psikolojik danışma ve rehberlik, program geliştirme ve öğretim, ölçme ve değerlendirme alanlarında uzman üç öğretim üyesinden görüş alınmıştır. Ölçeğin dilsel eşdeğerlik çalışmasında, İngilizce ve Türkçe uygulamalar arasındaki tutarlık Pearson Korelasyon Katsayısının hesaplanmasıyla; faktörlerin elde edilen verilerle uyumu doğrulayıcı faktör analiziyle; ölçeğin iç tutarlığı Cronbach Alfa katsayısıyla; maddelerin puanlayıcıları ne derece ayırt ettiği düzeltilmiş madde-toplam korelasyonları ve bağımsız gruplar *t* testiyle; ölçeğin dış tutarlığı, test-tekrar test uygulamalarına ait korelasyon katsayısının hesaplanmasıyla belirlenmiştir. Sosyal adaletle ilgili tutumların, öznel normların ve algılanan davranış kontrolünün davranış eğilimleri üzerindeki etkileri yapısal eşitlik modellemesi ile incelenmiştir.

Araştırmanın Bulguları: Ölçeğin dilsel eşdeğerlik çalışmasında maddelerde .63 ile .84; faktörlerde .76 ile .84 arasında; toplam ölçekte ise .86 düzeyinde korelasyon değerlerine ulaşılmıştır $p=.00$, $p<.01$. Birinci düzey doğrulayıcı faktör analizi sonucunda uyum indekslerinden $\chi^2=671.15$, $df=246$, $\chi^2/df=2.72$, GFI=.90, AGFI=.88 değerleri kabul edilebilir düzeyde; RMSEA=.05, NFI=.96, NNFI=.97, CFI=.97, SRMR=.04 değerleri ise iyi düzeyde uyuma işaret etmiştir. Faktörlerin açıkladıkları varyanslar, .29 ile .83 arasında değişmiştir. İkinci düzey doğrulayıcı faktör analizi sonucunda saptanan uyum indeksleri ise şöyledir: $\chi^2=671.64$, $df=248$, $\chi^2/df=2.70$, GFI=.90, AGFI=.88, RMSEA=.05, NFI=.96, NNFI=.97, CFI=.97, SRMR=.04. Açıklanan varyanslar .24 ile .88 arasında değişmiştir. Ölçeğin iç tutarlık katsayıları faktörlerde .84 ile .92 arasında; toplam ölçekte ise .92 olarak bulunmuştur. Düzeltilmiş madde-toplam korelasyonları faktörlerde .55 ile .82; toplam ölçekte ise .41 ile .73 arasında değişmiştir. Bununla birlikte, *t* testi sonucunda tüm maddelerde farkın anlamlı olduğu görülmüştür $p=.00$, $p<.05$. Ölçeğin dış tutarlığı için yapılan test-tekrar test sonucunda korelasyon katsayıları, maddelerde .70 ile .91; faktörlerde .85 ile .95 arasında; toplam ölçekte ise .95 olarak bulunmuştur $p=.00$, $p<.01$. Araştırmanın ikinci amacı çerçevesinde, sosyal adaletle ilgili tutumların, algılanan davranış kontrolünün ve öznel normların, davranış eğilimleri üzerindeki etkileri incelenmiştir. Uyum indekslerinden, $\chi^2=570.93$, $df=246$, $\chi^2/df=2.32$, GFI=.90, AGFI=.87, değerleri model veri uyumunun kabul edilebilir düzeyde olduğuna; RMSEA=.05, NFI=.95, NNFI=.97, CFI=.97, SRMR=.05 değerleri ise uyumun iyi düzeyde olduğuna işaret etmiştir. Açıklanan varyanslar incelendiğinde, tutumun, algılanan davranış kontrolünün ve öznel normların birlikte davranış eğilimlerindeki varyansın yüzde 56'sını açıkladığı saptanmıştır.

Araştırmanın Sonuçları ve Önerileri: Ölçeğin İngilizce ve Türkçe uygulamaları arasındaki tutarlığın yüksek olması dilsel eşdeğerliğinin sağlandığını göstermiştir. Birinci düzey doğrulayıcı faktör analizi sonucunda, model veri uyumunun yeterli düzeyde olduğu tespit edilmiştir. Ölçeğin Türkçe formunun, özgün ölçeğe benzer olarak, dört (sosyal adaletle yönelik tutum, algılanan davranışsal kontrol, öznel

normlar, davranışı sergileme eğilimi) faktör altında 24 maddeden oluştuğu saptanmıştır. İkinci düzey doğrulayıcı faktör analizi sonucunda elde edilen uyum indeksleri, faktörlerin, sosyal adalete yönelik davranış örtük değişkenini anlamlı biçimde açıkladığına işaret etmiştir. Ölçeğin iç tutarlık katsayılarının faktörlerde ve toplam ölçekte yüksek olması güvenilir bir ölçme aracının elde edildiğini göstermiştir. Düzeltilmiş madde-toplam korelasyonlarının yüksek olması ve alt %27 ve üst %27'lik grupların puanları arasındaki farkın anlamlı olması maddelerin puanlayıcıları ayırt edebildiğine işaret etmiştir. Test-tekrar test korelasyon katsayılarının kabul edilebilir düzeyde olması ölçeğin dış tutarlığının sağlandığını göstermiştir. Yapısal eşitlik modellemesi sonucunda sosyal adaletle ilgili tutumların, algılanan davranış kontrolünün ve öznel normların, davranış eğilimleri üzerindeki etkilerinin olumlu yönde ve anlamlı olduğu saptanmıştır. Alanda, öğretmen adaylarının sosyal adaletle ilgili düşüncülerini ölçecek Türkçe ölçme aracı bulunmamaktadır. Bu nedenle, ölçeğin Türkçe formunun alandaki boşluğu dolduracağı düşünülmektedir. Araştırmacılar ve eğitimciler, ölçek aracılığıyla öğretmen adaylarının sosyal adalete ilişkin düşüncülerini değerlendirerek uygun sosyal adalet eğitimleri düzenleyebilirler. Yapılacak araştırmalarda, farklı üniversitelerdeki öğretmen adaylarından ve görev başındaki öğretmenlerden elde edilecek verilerle geçerlik ve güvenilirlik analizlerinin yeniden yapılmasının ölçeğin genellenebilirliğini artıracığı söylenebilir. Sosyal adalet konularıyla ilgili farklı ölçekler kullanılarak ölçeğin uyum geçerliği araştırılabilir.

Anahtar Sözcükler: Eşitlik, eğitim olanağı, doğrulayıcı faktör analizi, öğretmen eğitimi