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DEVELOPING A SCALE FOR ATTITUDE TOWARDS VALUES EDUCATION THROUGH DISTANCE EDUCATION

(Research article)

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Abstract

Being based on values education through distance education, this study aims to develop a scale that will provide valid and reliable results regarding prospective teachers' attitudes towards values education through distance education. Participants of the study consist of 341 prospective teachers studying in the faculty of education. Experts were consulted for the content validity of the scale. Construct validity of the scale was ensured through exploratory factor analysis. The number of factors was determined through parallel analysis method based on Monte Carlo simulation. As a result of the analyses, a scale was developed which consists of 36 items; 15 of them negative and 21 of them positive. The scale contributes to 63,28% of the total variance. It was found that the scale had a two-factor structure. These factors were named "Necessity and Usefulness" and "Feasibility" respectively. Tukey's Test for Non-additivity results shows that the scale does not have additivity properties. Therefore, it is not possible to obtain a total score from the whole scale. Cronbach Alpha reliability coefficient for the factors of the scale for attitudes towards values education through distance education were found .97 and .96. Finally, the limitations of the study were stated and recommendations were provided.

Keywords: Distance education, values education, values, online learning

1. Introduction

In line with social changes, values, and values education frequently becomes a current issue in the society, family, school, and scientific fields. In recent years, official curriculums have included what values are to be taught (http://mufredat.meb.gov.tr/). Although sources show different approaches regarding values education, Superka, Ahrens, Hedstrom, Ford, and Johnson (1976) offer five approaches regarding values education. These approaches are "Inculcation", "Moral Development", "Analysis", "Clarification", and "Action learning". In addition to different approaches in values education, it can be noted that different teaching methods and techniques are used in the teaching process. These are case studies, games, simulations, biography, observation, role-playing, drama, discussion, factual and fictional stories, tales, historical events, poems, songs, projects, and cooperative learning (Acar Başeğmez, 2017; Balcı & Yelken, 2013; Çelik, 2016; Can, 2008; Superka et al. 1976).

Sivaswaroop (2009) suggests that values are learned continuously within lifelong learning and so compared with traditional learning environments, distance education is more advantageous in terms of raising awareness of values. Today, developments in the mass media, new technology, and online applications contribute to more effective practices of distance education. In fact, distance education was experienced by millions of teachers and students in different countries during the pandemic. Toker Gökçe (2008) draws attention to values

education through the distance education system by claiming that a country can enable its citizens in other countries to acquire national values by using distance education systems. Deveci (2005) points out that values education is possible within distance education systems directly or indirectly. According to Deveci, websites, TV programs, and online teaching environments can be designed, and values education classes can be directly conducted online. Recent studies show that online tools are used in the process of values education (Afandi & Juanda, 2020; Çoskunserçe, 2020).

Research on values education indicates that studies have been carried out mostly at the primary education level and regarding values education they usually comprise Teachers' and Students' Opinions (Balcı & Yanpar Yelken, 2013; Can, 2008; Husu & Tirri, 2007), examining resources such as curriculum, textbooks, journals (Baydar, 2009; Keskin, 2008; Kuş, 2009; Tekin Bahrilli & Göloğlu Demir, 2021), approaches and methods used in values education (Akbaş, 2009; Çelik, 2016; Yiğittir & Kaymakçı, 2012). In his research where he examined teachers' opinions about values education, Thornberg (2008) suggests that values education is usually unplanned, included in daily school life, and carried out partly or mostly unconsciously. Furthermore, it is noted that teachers lack professional knowledge about the values of education. Bozdaş (2013) established that primary school teachers and branch teachers whose professional commitment levels are low do not have a tendency to diversify practices for values education whereas those who are highly committed to their professions tend to use different activities to practice values education.

In literature, there are a limited number of studies on values education through distance education. Deveci (2015) stated her views regarding Social Sciences prospective teachers' opinions about giving values education through the distance education system. Prospective teachers believe that values education is a necessary part of social life, and students should be provided with values education within the distance education system. Besides, prospective teachers state that values education can be integrated into distance education. On the other hand, some prospective teachers think that values education cannot be successful even within face-to-face education, and it is impossible to be successful within distance education. Körükçü (2021) established Social Sciences teachers' opinions about values education in the process of distance education. Teachers stated that values education was not effective in Social Sciences classes that were conducted online. It was found that in the distance education process Social Sciences teachers used character education, moral reasoning, and values inculcation approaches among values education approaches.

Mawardi, Raharjo, and Olawale Fahm (2021) aimed to identify teachers' strategies for strengthening character education based on Islamic values in online learning and to identify barriers to online learning. In their study, it was found that teachers applied innovations in learning methods, and strengthening strategies such as using reinforcers and imposing sanctions. It was also found that there were barriers such as technical problems, economic conditions in the family, students' indifference, and boredom. As a result of their action research in order to enable participants to acquire educational values through hybrid learning, Mariah and Andayani (2020) found that hybrid learning was effective. In Gabatbat and Santander's (2021) research on the value of values education in virtual classrooms, participants emphasized the importance of values education in online learning in terms of individual character development, psychological development, and in terms of helping students to socialize and to be humans within online communication rules and norms.

Teachers' attitudes and behaviors regarding values education are really important. In the process of teacher education, it is necessary to develop teachers' attitudes towards and skills in values education as well as developing their attitudes towards and skills in teaching their

branch. Studies in which teachers' attitudes towards values education are examined show that teachers have positive attitudes towards values education (Bilmez & Tarkoçin, 2017; Yaşaroğlu, 2014).

The fact that distance learning was applied intensively during the Covid-19 pandemic and that hybrid learning is on the agenda following the pandemic shows the need to sustain values education through distance education. Thus, it is important to establish prospective teachers' attitudes towards values education through distance education in the process of teacher education. Literature review in the field indicates that a limited number of scales were developed in order to identify teachers' and prospective teachers' opinions about the values of education. These are some of the similar scales developed by researchers: "Scale for Attitudes towards National Values Education" developed by Çetin (2015); "Scale for Acquiring Values regarding Teaching Profession in the Faculty of Education" developed by Demir (2018), and "Scale for Primary School Teachers' Attitudes towards Values Education" developed by Başyiğit (2021). Another scale related to this subject is the "Scale for Teachers' Attitudes towards Distance Learning" developed by Deniz and Bağçeci (2021). In literature, no scales were found for values education through distance education or for attitudes towards values education through distance education. Hence, this study aims to develop a scale that will provide valid and reliable results regarding prospective teachers' attitudes towards values education through distance education.

2. Method

This study is a descriptive one in the survey model. The survey is a model in which data is collected in order to identify certain characteristics of a group (Fraenkel, Wallen & Hyun, 2012). The scale development steps suggested by DeVellis (2017) were taken as a basis to determine the attitudes of teacher candidates towards value education through distance education. The research was carried out with the decision of Bandırma Onyedi Eylül University, Social and Human Sciences Ethics Committee.

2.1. Participants of the Study

Participants of this study consist of 341 prospective teachers studying in the Faculty of Education at Gazi University. Table 1 shows the distribution of 341 prospective teachers according to their gender and grades.

Table 1. *Distribution of prospective teachers according to demographic variables*

Variable		Frequency (f)	Percentage %
Gender	Female	266	77,3
	Male	75	21,8
Grade	1st Grade	73	21,2
	2nd Grade	40	11,6
	3rd Grade	111	32,3
	4th Grade	117	34,0

As seen in Table 1, more than half of the participants (77.7 %) are female prospective teachers. Distribution according to grades shows that with 11.6% of participation, prospective primary school teachers in the 2nd grade represent their group with the lowest number of participants while 4th-grade prospective teachers represent their group with the highest number of participants with 34%.

While there is no certain number of participants for factor analysis (Warner, 2013), researchers suggest various sample sizes for different studies. For example, Tinsley and Tinsley (1987) suggest that five to ten participants per item and 300 participants overall would be enough in order to carry out exploratory factor analysis (EFA). On the other hand, Comrey (1973) regards 300 participants as good, 500 participants as very good, and 1000 participants as a perfect number of participants.

2.2. Steps of Developing Scale for Attitudes towards Values Education through Distance Education

Different researchers suggest similar steps in the process of developing scale (Crocker & Algina 1986; DeVellis, 2017; Tezbaşaran, 1997). The following steps were followed in the process of developing the scale in this study.

Deciding What to Measure and the Purpose of the Measurement: This study aims to develop a scale that will provide valid and reliable results regarding prospective teachers' attitudes towards values education through distance education. For the structure to serve this aim, three dimensions of attitudes namely cognitive, affective, and behavioral (Freedman, Sears & Carlsmith 1989; Bohner & Wänke, 2004) were taken into consideration.

Generating an item pool: In this step, the literature review was conducted, scales used in studies related to values education and distance education were examined, and descriptive studies were analyzed. Then, 20 prospective teachers were asked to write a composition about their feelings, thoughts, and experiences regarding this subject. As a result, an item pool of 43 items was generated by considering both compositions and literature review.

Defining the format for the scale: Five-point Likert Scale was used for the items in the scale: Totally Agree (5), Agree (4), Mostly Agree (3), Disagree (2), Totally Disagree (1). Besides, negative statements were included in the items of the scale in order to prevent participants' bias.

Creating an expert panel to review items: In order to provide proof of content validity of the 43 items in the scale for attitudes towards values education through distance education, an Item Review Form was created so that experts from the fields of Computer and Instructional Technologies, Curriculum and Instruction, Testing and Evaluation could review the items and give feedback. Experts were given an Expert Feedback Form that included Four-Point Likert Scale: 1= Totally Unacceptable, 2= Needs Major Revision, 3= Needs Minor Revision, and 4= Totally Acceptable. Experts were asked to give short feedback for the items they found unacceptable. In line with the experts' recommendations, one item was edited, and three items were removed from the scale. Lynn (1986) suggests that if the number of experts is less than five, there should be unanimity among experts. Finally, 40 items that experts accepted unanimously (by giving 3 and 4 points) were included in the scale. A Turkish Language teacher was asked to check spelling and language use for the final draft of the scale.

Pilot Study: After the experts' feedback, a pilot study was conducted with the participation of 30 prospective teachers. Following the preliminary test, participants were asked how many minutes it took to finish and if there were vague items on the scale. As a result of the feedback from prospective teachers, it was decided that the scale consisting of 40 items, 18 of which were negative and 22 were positive, could be used as the main tool of the research.

Data Analysis: Items with negative statements were transferred to a computer to be reverse scored. SPSS 22 program was used for the analysis of data. After the short values and outliers were removed from the set of data obtained from the prospective teachers, exploratory factor

analysis (EFA) was conducted, Cronbach Alpha coefficient was calculated, and item analysis was carried out on 341 pieces of data.

3. Findings

Exploratory factor analysis was applied to test the construct validity of the measurements obtained from the Attitude Scale towards Value Teaching through Distance Education.

3.1 Exploratory Factor Analysis (EFA)

Before starting the Exploratory Factor Analysis, Kaiser-Meyer Olkin (KMO) sample adequacy value was calculated and found .971. This value shows that the sample size is "perfectly" adequate (Hutcheson and Sofroniou (1999), cited in Field, 2009, p. 647). It was found that the Barlett Sphericity test is statistically meaningful (χ2=11837,828, sd=780, p=.000). Therefore, it can be suggested that there is a high correlation between the variables, and the data set is suitable for principal components analysis (Kalaycı, 2006, s.327). Following this finding, the principal components analysis technique and varimax rotation method were applied in exploratory factor analysis in order to determine what dimensions the items would be grouped under. The number of factors was determined by evaluating eigenvalue, scree, and parallel analysis method based on Monte Carlo simulation (Pallant, 2005) together.

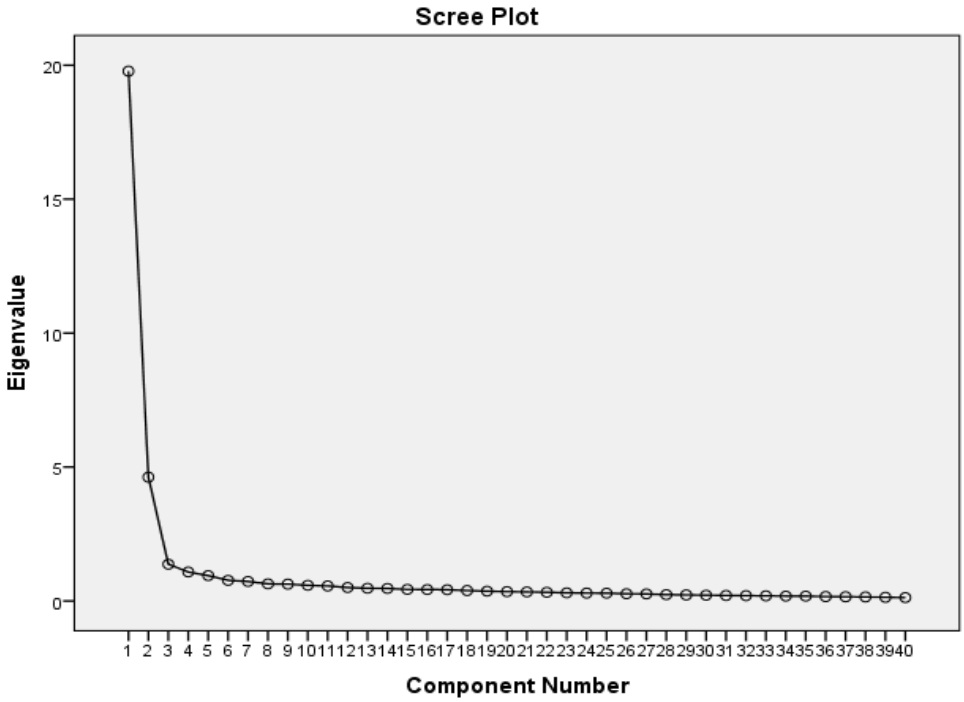

Figure 1. *Scree plot of the scale*

In Figure 1, the number of points on the left of the inflection point of the scree plot shows the number of factors (Field, 2009). According to the scree plot, the number of factors is two. Table 2 shows the factors whose eigenvalues are larger than 1 and the total variances stated.

Table 2. *Total Variance Stated*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	19,778	49,444	49,444	19,778	49,444	49,444
2	4,621	11,553	60,997	4,621	11,553	60,997
3	1,373	3,432	64,429	1,373	3,432	64,429
4	1,081	2,703	67,132	1,081	2,703	67,132

Table 2 shows the comparison between eigenvalues obtained from principal components analysis and eigenvalues obtained by entering 40 as the number of variables, 341 as the number of participants, and 100 as the number of recurrences in the Monte Carlo simulation program.

Table 3: *Parallel analysis results*

Factor	Eigenvalues Parallel Analysis	Eigenvalues PCA-Unrotated
1	1.7248	19,778
2	1.6368	4,621
3	1.5718	1,373
4	1.5156	1,081

According to Table 3, as a result of Parallel analysis, the first two eigenvalues obtained from PCA-Unrotated factor analysis are larger than the first two eigenvalues obtained from the parallel analysis (Pallant, 2005). This result confirms the decision to determine the number of factors as two.

Three criteria were considered in the selection of items testing the same structure in the factor analysis. The first criterion is that the undercut point of factor load value in the factor where the item is given must be .45 and higher (Büyüköztürk, 2019; Tabachnick and Fidell, 2001). The second criterion is that the item must have a high load value in one single factor. In the study, the difference between the two high load values was determined as .10 the least (Büyüköztürk, 2019). The third criterion is that the items whose item-total correlation is .30 and higher indicate high internal consistency (Büyüköztürk, 2019). In line with these criteria, after the varimax rotation was done, item 18 and item 20 were removed from the analysis since their factor load values were lower than .45, and item 16 was removed from the analysis since it had a high load value in two factors, and item 31 was removed from the analysis since its item-total correlation value was lower than .30. As a result, after the items in the Scale for Attitudes towards Values Education through Distance Education that did not meet the specified criteria were removed, the two-factor structure of the scale, factor loads, stated variance, and eigenvalues are given in Table 4.

Table 4: EFA (exploratory factor analysis) results

Factor Name	Item Number	Statement	Factor 1	Factor 2
Factor 1: Necessity and Usefulness	I 37	The idea of values education through distance education increases motivation for values education.	,820	
	I 38	I would defend values education through distance education everywhere.	,799	
	I 22	Values education through distance education is like a remedy in this era.	,799	
	I 8	I can easily spare time for values education through distance education.	,791	
	I 6	Values education through distance education interests me.	,779	
	I 34	Values education through distance education is the right approach.	,777	
	I 35	In my opinion, values education through distance education could raise awareness of values education.	,773	
	I 36	Values education through distance education should be given particular importance.	,761	
	I 9	Resources about values education through distance education interest me.	,752	
	I 24	Values education through distance education is a crucial approach to spreading values.	,746	
	I 13	I'd like to be involved in the plans made about values education through distance education.	,741	
	I 39	Values education through distance education should be considered a gain about values education.	,741	
	I 3	I'd like to join activities about values education through distance education.	,732	
	I 10	Discussions about values education through distance education interest me.	,729	
	I 7	Research on values education through distance education should be supported.	,713	
	I 15	Values education through distance education contributes to keeping values on the agenda.	,700	
	I 2	I care about values education through distance education.	,690	
	I 1	Values education through distance education is an opportunity.	,687	
	I 17	Values education through distance education is an effective way of teaching values to more individuals.	,674	
	I 25	Scientific events should be organized about values education through distance education.	,644	
	I 23	Scientific efforts about values education through distance education are praiseworthy.	,636	
		Stated Variance %	35,029	
		Eigenvalue	12,610	
Factor 2: Feasibility	I 20	Values education through distance education is all talk.		,832
	I 28	It is not worth even thinking about values education through distance education.		,827
	I 33	I'd never thought about values education through distance education.		,814
	I 27	Values education through distance education means undervaluing values education.		,801
	I 12	Values education through distance education is not worth spending time for.		,797
	I 11	Values education through distance education is an effort that cannot have positive results.		,794

I 30	Values education is not possible through distance education as it is already hard face-to-face.		,790
I 40	Pinning hopes on values education through distance education is in vain.		,773
I 32	Values education through distance education should be considered as a last resort.		,761
I 19	I don't think values education through distance education will be effective.		,760
I 26	I feel that I am distant from values education through distance education.		,711
I 14	Values education through distance education is taking the easy way out.		,710
I 5	Values education through distance education is impotence.		,688
I 29	Values education through distance education cannot be an alternative to values education face-to-face.		,662
I 4	Values cannot be taught through distance education.		,640
	Stated Variance %	28,257	
	Eigenvalue	10,173	
	Total Variance Stated	63,286	

As seen in Table 4, the scale consists of a total of 36 items: 15 negative and 21 positive. After the principal components analysis, it was found that 36 items consist of two factors. Considering the contents of the items and theoretical structure, Factor 1, which consists of 21 items, was called "Necessity and Usefulness" (Items 1, 2, 3, 6, 7, 8, 9, 10, 13, 15, 17, 22, 23, 24, 25, 34, 35, 36, 37, 38, 39), and Factor 2, which consists of 15 items, was called "Feasibility" (Items 4, 5, 11, 12, 14, 19, 20, 26, 27, 28, 29, 30, 32, 33, 40). Loads of items in Factor 1 vary between .63 and .82 and constitute 35,029% of the total variance. Loads of the items in Factor 2 vary between .83 and .64 and constitute 28,257% of the total variance. The stated total variance of the scale is 63.286%.

3.2. Reliability and Items Analysis

Whether the scale had the property of additivity was tested using ANOVA (ANOVA with Tukey's Test for Nonadditivity), and it was found that items in the scale were homogeneous and they were interrelated questions (F=34,405, p=.000). However, it was seen that the scale did not have additivity (Tukey Nonadditivity: F=19,286, p=.000<0.05). Factors of the scale need to be evaluated separately. Reliability of the measurements regarding the scale for Attitudes towards Values Education through Distance Education was tested using the methods of Cronbach Alpha and Spearman-Brown Split-Half Test Reliability. It was seen that the Cronbach Alpha reliability coefficient of the measurements was .969 for the "Necessity and Usefulness" factor; .961 for the "Feasibility" factor. Split-half test reliability of the measurements was calculated for each factor using the Spearman-Brown formula with reference to the relationship between the two halves of the test (Büyüköztürk, 2019). They were found at .934 and .930 respectively. Considering the criterion that measurements with a reliability coefficient of .70 and over are accepted as reliable (Field, 2009; Fraenkel, Wallen, and Hyun, 2012), it can be suggested that this scale gives reliable measurements.

Items analysis was conducted in order to determine the distinctiveness levels of the items and their predictive accuracy for the total score. Thus, the total correlation of the items was calculated and comparisons were made between the subgroups and supergroups of 27%. Findings obtained as a result of item analysis are given in Table 5.

Table 5: *Statistics of items-total and items analysis*

Item No	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	*t*	*p* and *df*
I 1	,702	,968	-18,996	
I 2	,730	,967	-17,566	
I 3	,749	,967	-17,583	
I 6	,824	,966	-21,915	
I 7	,777	,967	-19,117	
I 8	,785	,967	-19,514	
I 9	,779	,967	-18,991	
I 10	,725	,967	-15,807	
I 13	,730	,967	-15,534	
I 15	,739	,967	-17,034	
I 17	,680	,968	-15,461	df=84 p=0.00
I 22	,818	,966	-21,777	
I 23	,693	,968	-15,866	
I 24	,747	,967	-17,449	
I 25	,681	,968	-13,804	
I 34	,810	,967	-20,794	
I 35	,808	,967	-18,984	
I 36	,787	,967	-17,836	
I 37	,829	,966	-23,716	
I 38	,790	,967	-19,575	
I 39	,742	,967	-19,153	
I 4	,693	,960	-16,697	df=184
I 5	,656	,961	-15,464	p=0.00
I 11	,825	,957	-22,149	
I 12	,802	,958	-18,501	
I 14	,710	,960	-17,902	
I 19	,792	,958	-20,198	
I 20	,841	,957	-21,879	
I 26	,761	,959	-19,449	
I 27	,818	,957	-21,133	
I 28	,808	,958	-18,651	
I 29	,686	,960	-16,965	
I 30	,840	,957	-26,156	
I 32	,763	,959	-19,421	
I 33	,809	,958	-21,213	
I 40	,782	,958	-19,608	

As seen in Table 5, considering that t values regarding the differences between item scores of the subgroups and supergroups of 27% are meaningful, it can be suggested that items are distinctive (Erkuş, 2012). Besides, it can be stated that items have distinctive adequacy since total item correlation values of all items are .30 and higher (Büyüköztürk, 2019; Kalaycı, 2006). Correlation values of factors in the scale are given in Table 6.

Table 6: *Correlation values between sub dimensions*

		factor1	factor2
Necessity and Usefulness	Pearson Correlation	1	,632**
	Sig. (2-tailed)		,000
	N	341	341
Feasibility	Pearson Correlation	,632**	1
	Sig. (2-tailed)	,000	
	N	341	341

**Correlation is significant at the 0.01 level (2-tailed).

It can be observed from Table 5 that the correlation values of attitudes towards necessity and usefulness of values education through distance education, and attitudes towards its feasibility are 0,63 and in a medium-level positive relationship at a significant level of α=0.01 (Büyüköztürk, 2019).

4. Results and Discussion

With the Covid 19 Pandemic, many countries widely shifted from face-to-face education to distance education at different levels of schools. Considering this, skills that are acquired through face-to-face education such as 21st-century skills, values education, and high-level thinking skills can be aimed to be acquired through distance education. Being able to provide an effective values education means being able to reach different segments of the society and different age groups widely and independently of time and place. Hence, it is highly important for prospective teachers to gain skills for values education through distance education and to have positive attitudes towards it. Within this scope, this study aims to develop a scale that will provide valid and reliable results regarding prospective teachers' attitudes towards values education through distance education. Psychometric findings of the scale development study conducted with the participation of 341 prospective teachers are as follows:

In this scale development study, a scale whose content validity was ensured in line with experts' opinions was developed and it consists of a total of 36 items, 15 of which are negative and 21 positive. The scale contributes to 63,28% of the total variance. Exploratory Factor Analysis (EFA) shows that the scale has a two-factor structure. These are named "Necessity and Usefulness" and "Feasibility" respectively. Results of Tukey's Test for Non-additivity reveal that the scale does not have additivity. Therefore, it is not possible to obtain a total score from the whole of the scale. Evaluation of each subfactor separately is more suitable. Reliability of the measurements obtained from the Scale for Attitudes towards Values Education through Distance Education was ensured with the Cronbach Alpha coefficient. It was found that the Cronbach Alpha reliability coefficient of the measurements was .97 for the "Necessity and Usefulness" factor; .96 for the "Feasibility" factor. It can be suggested that the scale gives reliable measurements since reliability coefficient values are .70 and higher (Field, 2009; Fraenkel, Wallen & Hyun, 2012).

In the items analysis of the Scale for Attitudes towards Values Education through Distance Education, item-total correlation and comparisons between subgroups and supergroups of 27% were examined. Results of the analysis reveal that item-total correlations vary between .680 and .829 for Factor 1; between .656 and .841 for Factor 2. According to the results, t values regarding the differences between subgroups and supergroups of 27% are significant for all items in the scale. These findings show that items in the Scale for Attitudes towards Values

Education through Distance Education are distinctive. As a result of the scale development study, it was established that the Scale for Attitude towards Values Education through Distance Education gives valid and reliable measurements in identifying prospective teachers' attitudes towards values education through distance education.

Minimum and maximum scores that can be obtained from the Scale for Attitude towards Values Education through Distance Education are as follows: In the "Necessity and Usefulness" factor, which includes 21 items, the minimum score can be 21, the maximum score can be 105; In "Feasibility" factor, which includes 15 items, the minimum score can be 15, the maximum score can be 75. Here, negative items were reverse coded and included in the analysis. As a result, an increase in the prospective teachers' scores in each subfactor shows that they have positive attitudes towards the necessity and usefulness of values education through distance education, and towards the feasibility of values education through distance education.

Deniz and Bağçeci (2021) analyzed the validity and reliability of the "Scale for Teachers' Attitudes towards Distance Education". Following Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), factors of the scale which consists of 21 items and two factors were called "Advantages of Distance Education" and "Limitations of Distance Education".

This study has some limitations that need to be noted. Firstly, the majority of the participants are females. In this case, the study is likely to lead to gender bias. On the other hand, participants of this study are limited to prospective teachers studying at Gazi University. Hence, conducting this study at Gazi University, which is an old and prestigious university, may influence the generalization of the results to some extent. Conducting a study with the participation of prospective teachers studying in new universities could have better results. The last limitation is that in literature there isn't a scale that examines attitudes towards values education through distance education and gives valid and reliable results. Therefore, it was not possible to make a comparison with an external scale that examines prospective teachers' attitudes towards values education in terms of external validity.

Researchers are recommended to carry out a confirmatory factor analysis on the participants that consist of prospective teachers from different universities. Another recommendation for future studies could be analyzing convergent validity, similarity validity, convergent validity, and discriminant validity of the scale for attitudes towards values education through distance education in different studies. Regarding the reliability of the scale, studies can be carried out using different reliability measurement methods such as the test-retest method.

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