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The development of a universal and cultural values scale for values education

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The aim of the study reported on here was to develop a universal and cultural values scale (UCVS) to measure the universal and cultural values to be incorporated in primary education. The items measured were derived from an item pool prepared with expert consultation. The study was conducted with 360 fifth-grade students who attended primary schools in Istanbul during the 2018–2019 academic year. The construct validity of the scale was determined with exploratory and confirmatory factor analyses. The internal consistency obtained for the whole scale was reasonably strong ($\alpha = 0.81$). The utility of the scale as a valid and reliable measure for use in determining elementary school students' attitudes toward universal and cultural values is discussed.

Keywords: scale development; universal and cultural values; values; values education; values scale

Introduction

In today's world, where change is inevitable, ongoing economic, social, political, and cultural development has led the study of values to become a shared interest across a range of subject fields, including psychology, sociology, philosophy, economics, and also other fields in the social sciences (Ozdemir, 2011).

Apart from the authoritative definition of values by the Turkish Language Association (TLA, 2012) as an abstract criterion for determining the significance and worth of objects, the notion is variously defined in the literature. One shared feature targeted by these definitions is the role of values in guiding an individual's social life, as social values and the passing down of these values to future generations have a significant impact on individuals' ability to sustain their existence (Güven, 2014; Onal, 2017). More specifically, as a form of social supervision, values form the basis of rules and norms that underlie social life (Turan & Ulusoy, 2016).

Since an individual's values will affect his/her personality, life perspective, lifestyle, and even future social roles, it is necessary for the individual to be aware of, gain, and adopt certain values. The nearly life-long process of developing/cultivating values is called values education (Yaman, 2016). This definition underscores the value of communicating the desired values to students during their education and training in schools as part of the changing pedagogy. Accordingly, due importance ought to be attached to increasing values-related content in the curriculum (Aran & Demirel, 2013).

It is thus highly pertinent to develop a curriculum for twenty-first century students using innovative approaches in education (Ozdamli & Asiksoy, 2016). In recent years, as innovation has been playing an increasingly noticeable role in education, the current structure of teaching and learning processes and teacher-student roles and curricula have become subject to the influence of this change (Akpinar & Aydin, 2007). Teachers' pedagogical traditions and perceptions have also been adapted to the changes in traditional education (Şenturk, 2018). School environments, where the values, social behaviour and habits of the younger generation are being shaped, have a unique effect on the teaching of values due to the substantial role of school education in an individual's life (Ekşi, 2003). On the one hand, individuals who receive education in a society tend to carry and reflect the distinctive values of that society; on the other hand, through values education, they integrate into society through socialisation and by building a cultural identity (Turan & Ulusoy, 2016).

Considering that values are learnable and teachable elements, it becomes inevitable for individuals to learn the values of the world and society within a school setting. This process should be supported by curricular and extracurricular activity programmes (Mekhael & Shayya, 2018). The effect of values education, however, is not immediately visible, as the resultant behaviour changes can only be observed in the long term (Erdogan, Turkkahraman & Ozbek, 2018). From this point of view, the aim of values education is to help individuals strive towards perfection in line with their inner world, intelligence and will, and to secure protection of individuals and society from moral corruption and even save those who have committed immoral deeds (Kızıler & Canikli, 2018)

Until 2005, teachers, on their own initiative, have been continuously providing values education in the form of a hidden curriculum aimed at students' affective development. Emphasis was placed on incorporating values into curricula based on understanding and principles related to universal and cultural values as part of the renewal of the primary education curriculum. Consequently, in the primary education curriculum created after 2005, values have become an integral part of the curriculum associated with subject learning. This change is considered to be a major step in values education (Tunca, 2015), as it has created an innovative philosophy and

a new vision in the Turkish education system. However, the education of individuals who are reconciled with the world and society is still lacking, in that failure to educate these individuals properly continues to cause problems leading to current social issues (Dogan, 2007). Values that exert a long-term impact on an individual's behavior and preferences enter a person's life at an early age (Karoglu, Calisandemir & Unuvar, 2017). Therefore, ensuring the development of proper values in primary school children is an important task for psychologists, educationalists, families, and society at large (Ulusov & Dilmac 2016). In carrying out this task, educational institutions play an especially important role in fostering universal and cultural values in individuals in order to educate them and raise awareness of good citizenship and to ensure social progress. Effective values education necessitates support from schools to provide guidance for the development of students' ability to understand, adopt, and apply values to real-life situations (Güven, 2014).

In the literature related to teaching values in the school environment and the evaluation of values teaching, there are studies targeting different educational stages and studies addressing different dimensions of values. For instance, Yılmaz (2006) examined individual and organisational values in public primary schools and developed the Management Values Scale to measure values in primary school administrators and teachers. Dilmaç (2007) developed the Humanitarian Values Scale to test the effectiveness of humanitarian values education as taught to high school students. Tunca (2012) assessed the professional values of primary school teachers and developed the Professional Values Scale. In an attempt to measure fifth-graders' perceptions of social values, Bakaç (2013) developed the Social Values Perception Scale by referring to the social studies curriculum and emphasised the importance of determining the values perceptions of students at primary school level, as they are cultural inheritors who will pass on a legacy to future generations. Neslitürk and Celikgöz (2015) developed the Preschool Values Scale Family and Teacher Form with validity and reliability tests and conducted a study on the value development of preschool children. Cetin (2015) developed the Attitude Towards Teaching National Values Scale, which he validated with a sample of students from Gazi University and advocated its use as a reliable measurement tool to determine prospective teachers' attitudes. Beldag, Özdemir and Nalçacı (2016) developed the Values Education Scale for the acquisition of values in seventh-grade social studies courses. Karataş and Oral (2017) studied prospective teachers' readiness to teach sensitive cultural values with senior students from the classroom teaching department. These studies show that the school environment, teachers, and curricula play an

active role in cultivating student values. In considering integrating values education into the early years of schooling, development of a universal and cultural values scale (UCVS) may greatly facilitate the evaluation of whether the intended values are properly taught in the education curriculum that covers the four years of primary education. In light of all these studies, the determination of students' attitudes towards universal and cultural values can be considered the first stage of education-training studies. Therefore, there is an obligation to develop an attitude scale of universal and cultural values to be implemented at the early stage of primary education. To this end, this study aimed to develop an attitude scale to measure students' attitudes towards universal and cultural values.

Values - Career Planning Relation

Changes in economic, social, and technological aspects force educational institutions, children, and young people to successfully transition from school to work and navigate the demands of this transition process. Therefore, in the new world order, educational institutions must establish their programmes to create a productive education environment that will enable children and young people to integrate into real life and transit successfully from school to business life (Yaylaci, 2007). It is extremely important that children, after graduation, are able to adapt to the 21st century's ever-changing labour force requirements. It is only possible to solve career problems in a healthy way by understanding the career development process in childhood and the concepts related to this process (Schultheiss & Stead, 2004).

In the 21st century, skills have become more important than knowledge on specific subjects or learned knowledge. Life skills, career skills, and innovative and project-oriented academic work have gained fundamental importance (Cevik & Senturk, 2019). Carrying out career planning in line with the child's personality characteristics and values will make it easier for the child to reach his/her career goals in the future (Kovalčikienė & Daukilas, 2018). Career values are the indispensable elements that individuals set for their own careers. These elements are the basic ideas of what an employee needs for a successful career. These enable individuals to determine their careers based on their abilities, their needs and personal values, and affect all career-related decisions (Mignonac & Herrbach, 2003). Erdoğmus (2004) states that career values determine the activities in the scope of future career development. The career targeted by an individual is the basic aspect of the individual's effort and tendency, as well as the values in the top corner of his/her own catalogue of values (Adler,

Maree (2019) points out the importance of career planning at an early age, while Can and Tayli

(2014) emphasise that the primary education period is the period when individuals begin to develop attitudes about career planning. Lämsä, Sakkinen and Turjanmaa (2000) suggest that individuals' values play an active role in their career planning. Increasing efforts to understand career development and other related concepts in childhood is also very important for a more holistic approach to career development (Hartung, Porfeli & Vondracek, 2005).

Research shows that career development starts at an early age (Yaylaci, 2007). Accordingly, it is possible to say that career planning studies should start at primary school level. Determining the attitudes of children towards values will determine the career values and increase the quality of the career counselling services that will be systematically provided through education at primary school level. The study reported on here is important as the results will enable career counsellors to determine the attitudes of early age customers towards universal and cultural values and enable them to plan a career in accordance with their value orientations.

Method

The stages of the development of a universal and cultural values scale (UCVS) and the characteristics of the study group are discussed in the following section.

Study Group

The research was conducted with fifth-grade students who attended primary schools in Istanbul during the 2018–2019 academic year. Participation was on a voluntary basis. A total of 360 11 year-old students (206 girls and 154 boys) participated in the study.

Scale Construction

In order to determine the measures of universal and cultural values to be taught at the early stage of primary education, a stepwise process was followed to develop the UCVS. These steps were:

- 1) Creating an item pool and seeking expert advice
- 2) Conducting validity analysis
- 3) Administering a pilot study
- 4) Analysing pilot study data
- 5) Conducting validity and reliability tests
- 6) Finalising the scale

Creating an Item Pool and Seeking Expert Advice

While creating the item pool of the scale, we examined the list of subjects and concepts published monthly during the 2014–2015 academic year by the Istanbul Directorate of National Education Strategy Development Department, and derived from the list, the reference values for developing the items. At this stage, we decided to include seven values from the list to form sub-dimensions of the scale for primary education. Before creating

the items measuring these sub-dimensions at the second stage, we examined the first-, second-, third-, and fourth-grade textbooks of National Education and categorised the values mentioned in the books. The descriptors for each value were determined, and the scale items were designed to examine the extent to which the target value was reflected. In full consideration of all necessary evaluations, a 127-item pool was created. After removing overlapping items and consulting 20 leading field experts, a 70-item pool was prepared for validity analysis.

Conducting Validity Analysis

The pool of 70 items created for validity analysis was submitted to 11 academicians who specialised in assessment, evaluation and scale development, seven class teachers in primary education, and two pedagogues.

We followed Lawshe's (1975) approach to assess the validity of the items. A minimum of five and a maximum of 40 expert opinions were required. For each item in the scale, opinions from 20 experts were collected by anchoring their answers to three choices: "the item measures the targeted structure," "the item is related to the targeted structure but it should be developed," and "the item does not measure the targeted structure." The content validity ratio (CVR) was calculated by subtracting one from the ratio of the number of experts who rated the item necessary to the total number of experts (Yurdugül, 2005). The items with a CVR score lower than 0.90 were excluded from the scale; thus, a scale consisting of 35 items was obtained. The suitability of administering the scale to fifth graders in terms of language difficulty was evaluated by two Turkish-language teachers who considered the language comprehensible and suitable for the age group. The scale prepared for the pilot study used a three-point Likert scale (3 = "Agree," 2 = "Undecided" and 1 = "Disagree").

Administering a Pilot Study

The scale was piloted with 360 fifth-grade students who attended Private Tuzla Kale School and Evliya Çelebi Primary School during the 2018–2019 academic year.

Analysing Pilot Study Data

Factor analysis was used to determine the construct validity of the scale, to determine the factor loadings of the items, and to dimension the items. First, the Kaiser-Meyer-Olkin (KMO) test and exploratory factor analysis (EFA) were performed using the Statistical Package for the Social Sciences (SPSS) 20.0 software suite. Then, using SPSS Amos 25.0, confirmatory factor analysis (CFA) was conducted to reinforce the EFA results. The Cronbach's alpha coefficient was calculated for the reliability of the whole scale and its sub-dimensions.

Finalising the Scale

After the validity and reliability tests, the UCVS was finalised. The final version consisted of 34 items covering seven sub-dimensions (Courtesy rules, Friendship, Being family, Rules of conduct in social environments, Effective usage of time, Health and blessings, Avoiding violence, and Healthy living). The resultant scale can serve as a measure of primary school students' attitudes to universal and cultural values.

Results

Findings relating to validity and reliability studies of the UCVS are included in this section.

Content Validity

Following Lawshe's (1975) method, the scale con-

sisting of 70 items was reduced to 35 items by subtracting the items with CVR values below 0.90. Expert opinions were evaluated separately for each sub-dimension, and CVR values were found in the range of 0.90–1.00. The content validity index (CVI) value of the courtesy rules sub-dimension was found to be 0.96 or 96%, 0.98 or 98% for Friendship, 0.94 or 94% for Being family, 0.98 or 98% for Rules of conduct in social environments, 0.96 or 96% for Effective usage of time, Health and blessings, 0.90 or 90% for Avoiding violence and 0.92 or 92% for Healthy living.

Exploratory and Confirmatory Factor Analysis Before the factor analysis study, KMO coefficient and Barlett's test of sphericity were calculated to determine the suitability of the data.

Table 1 The results of the KMO coefficient and Bartlett's test of sphericity

Kaiser-Meyer-Olkin measure of sampling adequacy		0.879
Bartlett's test of sphericity	X^2	22447.928
	SD	561
	p	0.000

As shown in Table 1, the KMO measure of sampling adequacy was 0.879, above the commonly recommended value of 0.6. Bartlett's test of sphericity was significant (χ^2 (561) = 22447.93, p < 0.05).

The EFA identified seven factors with eigenvalues greater than 1. These factors explained

93.8% of the total variance. The item factor load was taken over .30, and the first item in the sub-dimension, Avoiding violence (Factor 6, item 26), was excluded from the scale because it was loading to another factor. The EFA was repeated and the factor loadings of the items are presented in Table 2.

Table 2 Factor analysis of universal and cultural values scale constructs

•		Factor loading	
Item	1	2	
Factor 1: Courtesy rules ($\alpha = .99$)			
1. When asking for something, we should say "Please."	992	.997	
3. We should not speak loudly in a crowded environment.	982	.978	
4. We should help people who need it.	980	.971	
5. We should make eye contact when talking to people.	979	.971	
2. When people are talking, we should not interrupt, but listen.	974	.964	
Factor 2: Friendship ($\alpha = .98$)			
6. Problems should be shared with friends.	.994	.999	
8. Toys/personal belongings should be shared with friends.	.976	.967	
9. We should listen to our friends' problems and offer a solution.	.974	.970	
7. Making friends does not make one feel alone.	.971	.961	
10. We should not feel unhappy that our friends are more successful than us.	.970	.961	
Factor 3: Being family ($\alpha = .97$)			
11. Being a family requires respect for our parents and siblings.	.983	.995	
12. Our family should support us in all circumstances.	.965	.948	
13. There must be mutual love on the basis of being a family.	.957	.947	
15. Every member of the family should have the right to speak about the decisions made in the family.	.937	.914	
14. Every individual in the family must fulfil their responsibilities.	.923	.901	
Factor 4: Rules of conduct in social environments ($\alpha = .99$)			
16. We should cover our mouth when coughing/sneezing.	.996	1.000	
19. When playing games, the rules of the games should be observed.	.988	.985	
17. We should not speak loudly in the library.	.987	.984	
20. We should not throw garbage on the ground in parks, gardens, or picnic areas.	.980	.973	
18. We shouldn't talk in the classroom without teachers' permission.	.978	.969	
Factor 5: Effective usage of time, health, and blessings ($\alpha = .98$)			
21. Time allocated for homework should not be wasted by watching television (TV) or surfing the internet.	.993	1.000	
22. Healthy food should be consumed everyday (such as fruit and vegetables).	.982	.978	
24. I should get enough sleep and wake up early.	.981	.978	
23. We should use our personal belongings with care.	.969	.964	
25. I should understand the value of resources such as heat, water, and electricity and use them economically.	.936	.906	
Factor 6: Avoiding violence ($\alpha = .95$)			
28. When we fight with our friends, the most important thing should be winning the fight.	.954	.936	
29. It is wrong to use offensive nicknames for our friends.	.947	.929	
27. People have the right to be violent when they are angry.	.944	.933	
30. We should not consciously damage any creature or object.	.909	.870	
Factor 7: Healthy living ($\alpha = .97$)			
31. For oral health, we should brush our teeth twice a day.	.980	.996	
33. We should not start the day without breakfast.	.963	.928	
32. We should eat properly for a healthy life.	.960	.966	
34. We should dress appropriately to the season to avoid becoming ill.	.959	.932	
35. We should exercise regularly for a healthy body.	.940	.902	

Note. Factor Loading 1: Result of exploratory factor analysis; Factor loading 2: Result of confirmatory factor analysis. (The text of the survey items has been translated from Turkish.)

In confirmatory factor analysis, the good-fit indexes that provide the evaluation of the whole scale, were examined. The resultant values, togeth-

er with the range of values required by comparatively good-fit models, are presented in Table 3.

Table 3 Good-fit index

CMIN (χ^2)	p	Values
CMIN/df	$\chi^2/df < 5$	1.266
GFI	> .90	.906
CFI	> .90	.994
NFI - TLI	> .80	.974994
RMSEA	< .07	.027

Note. CMIN/df = Minimum value of Chi-square/Degree of freedom; GFI = Goodness-of-fit index; NFI-TLI = Normed fit index-Tucker-Lewis index; CFI = Comparative fit index; RMSEA = Root mean square error of approximation.

Covariance was formed between items 33 and 34 as they belonged to the same implicit variable and described a similar phenomenon. According to the results obtained, it is possible to say that the good-fit indexes of the model are quite high.

Reliability

Internal consistency for each of the seven sub-dimensions was examined using Cronbach's alpha. The results indicate that each sub-dimension was highly consistent: .99 for Courtesy rules (five items), .98 for Friendship (five items), .97 for Being family (five items), .99 for Rules of conduct in social environments (five items), .98 for Effective usage of time, health and blessings (five items), .95 for Avoiding violence (four items), and .97 for Healthy living (five items). The whole scale was found to be highly reliable (34 items; $\alpha = .81$). Taken together, the UCVS is proven to be a reliable measurement tool.

Discussion

In today's world, the mission to raise individuals with humanitarian characteristics who are useful to society has gained importance, and such qualities also have an effect on students' academic achievement. Values education studies in the Republic of Turkey are built on the understanding that the individual should be treated as a whole.

When studies conducted in the field of values education in our country are examined, an increase in the number of studies conducted in this field in recent years is observed. This indicates that the interest in the field has increased and that the importance of values education is better understood. Based on demographic characteristics such as age, occupation and educational background, studies are conducted in which the quantitative and qualitative methods are used separately or together. In addition, many studies evaluating school administrators', teachers' and parents' opinions on the adequacy of values education provided in schools have been conducted. In values education, the evaluation of student achievements has a special importance as it determines whether the aims of values education have been realised.

It is possible to categorise studies related to test status of values education into three categories. The first of these are scale development studies that test the effectiveness of the programmes following the implementation of a prepared values education programme. These studies are mostly aimed at measuring the results of an additional programme applied to the students, excluding existing training programmes. The contribution of such study to the field is that the values of additional programmes for students can be more efficiently applied.

The second category involves assessment of the validity and reliability of the scales developed abroad, and their language adaptations. Kapıkıran and Gündogan (2016) performed the Turkish adaptation of the Portrait Values Scale developed by Schwartz (1994) to measure children's values. The Rokeach Values Inventory (Rokeach, 1973) was adapted to Turkish by Bilgin and Araz (1995) with a language equivalence study, and a reliability and validity study was conducted by Calışkur and Aslan (2013). These adapted and similar scales were used in many studies to measure students' values. The contribution of such studies to the field was to grade the values tendencies of students and categorise them.

The third category is scale development studies related to the test status of values in curricula provided to students. Scale development studies for primary school students are limited and implemented in the second stage of primary school. It is possible to say that these studies are single-lesson visions such as social sciences or Turkish lessons. However, in values education, each lesson provided within a curriculum in a school environment has importance and affects the learning process. When the studies conducted in the field are examined, no measurement tool can be found to measure the first process of the four-year primary school education or to measure the values that the Ministry of National Education aims for the students to acquire. For this reason, UCVS was developed in this study by referring to the list of monthly subjects and concepts of values education for primary school students specified by the Ministry of National Education. The most important feature that differentiates this study from other studies in the literature is that it determined the extent to which the objectives of the four-year education process and student achievements overlapped.

In this study, a 34-item scale was developed to measure students' attitudes towards universal and cultural values. The scale consisted of seven sub-dimensions, including Courtesy rules, Friendship, Being family, Rules of conduct in social environments, Effective usage of time, health and bless-

ings, Avoiding violence, and Healthy living, with five items in each sub-dimension, except Avoiding violence, which consisted of four items.

The UCVS developed in this study can be applied in future studies on values education to measure students' attitudes.

In recent years, the national curriculum has placed a premium on integrating universal and cultural values into primary and secondary education. As values were included in the learning objectives of textbooks, despite the attention of authorities to values education, studies of the measurement of students' values are not sufficient. The scale developed in this study can be used to measure primary school students' attitudes towards values. It is claimed that conducting similar studies with secondary school and university students, and even of adults, will contribute to the field.

Authors' Contributions

Both authors contributed to the completion of the article. E.E. completed the collection of data, analysis, literature review and writing the original draft. H.U. wrote the review and editing by shaping the results section.

Notes

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