# Global citizenship education and diversity (GCEDS)

## A measure of students' attitudes related to social studies program in higher education

Hasan Aydin
*Department of Curriculum, Instruction and Culture,
Florida Gulf Coast University, Fort Myers, Florida, USA, and*

Muhammed Cinkaya
*Independent Researcher, Istanbul, Turkey*

## Abstract

**Purpose** – The aspects of global citizenship, education and diversity are framing a paradigm that encapsulates how education can develop the knowledge, skills, values and attitudes of learners needed for securing a world which is more just, peaceful, tolerant, inclusive, secure and sustainable. The determination of students' attitudes toward global citizenship education and diversity is a phenomenal issue of the past several decades. This study aims to develop an attitude scale to quantify the attitudes of students, the content of courses and instructors toward global citizenship education and diversity.

**Design/methodology/approach** – In this study, the factor structure and internal consistency of "Global Citizenship Education and Diversity Scale" (GCEDS) were analyzed, and validity and reliability of the scale were assessed. Two sample groups of participants were used in the assessment of the scale. The first sample group (exploratory factor analysis group) was composed of 147, and the second group (confirmatory factor analysis [CFA] group) was composed of 257 undergraduate students from three different large public universities in Turkey.

**Findings** – CFA confirmed the structure that emerged in the explanatory factor analysis. In this context, "GCEDS" is a valid and reliable scale.

**Keywords** Diversity, Globalization, Global citizenship education, Scale development, Validity and reliability

**Paper type** Research paper

Since the past two decades, globalization and citizenship are terms that have become a part of public as well as academic discourse (Demaine, 2002) and learning about other cultures has become more than only a necessity; it is almost a pre-requisite (Faltis, 2014). Banks (1997) argued that cultural, ethnic, racial, language and religious diversity exists in most nations in the world. Banks (2003, p. 128) emphasized that one of the challenges to diverse democratic nation-states is:

> To provide opportunities for different groups to maintain aspects of their community cultures while at the same time building a nation in which these groups are structurally included and to which they feel allegiance.

Banks (2007) further discussed a delicate balance of diversity and unity should be an essential goal of democratic nation-states and of teaching and learning in a democratic society. In this vein, multicultural education has also become an indispensable part of discussions on education (Aydin, 2013a; Banks, 2010; Mncube, 2008). According to Gay (2000), preparing students for such a world is the goal of multicultural education and it can be accomplished through experiences and interactions in *a safe classroom environment*. Moreover, Banks (2010) argued that multicultural education provides equal opportunities for all students from different racial, ethnic and cultural backgrounds.

## Diversity

Diversity can be defined as differences among individuals or groups of individuals, which can be based on gender, age, sex, ethnicity and social status (Banks, 2004; Ozfidan and Burlbaw, 2016). Banks *et al.* (2005, p. 17) explained diversity as "the wide range of racial, cultural, ethnic, linguistic, and religious variation that exists within and across groups that live in multicultural nation-states." The term also refers to having different cultures respect each other's differences (Banks, 2004).

Banks (2003) indicated that the challenge of balancing diversity and unity has intensified as democratic nation-states, such as the USA, Canada, Australia and Japan, have become more diversified, and as racial and ethnic groups within these nations try to attain cultural, political and economic rights. In this context, Turkey is also a highly diverse country in terms of ethnic, culture, language and religious for a nation-state (Kaya, 2015; Kaya and Aydin, 2014). For instance, KONDA (2011) reports found out that there are 36 different ethnic and cultural backgrounds in Turkey.

Through growing ethnic, cultural, racial, language and religious diversity (Yigit and Tatch, 2017) throughout the world, citizenship education needs to be changed in substantial ways to prepare students to function effectively in the twenty-first century (Alanay and Aydin, 2016; Banks, 2003, 2007; Ladson-Billings, 1995). Gay (2003) argued that it is increasingly a cross-cultural phenomenon, in that teachers are frequently not of the same race, ethnicity, class and language dominance as their students. This demographic and cultural divide is becoming even more apparent as the number of individuals in teacher preparation and active classroom teaching dwindle (as cited in Oran, 2009). Ersoy (2010) stated that people are constantly influenced by transitional, cross-cultural, multicultural and multiethnic interactions. To create an effective citizenship education program that will educate students to be active citizens in their cultural communities (Aydin, 2013b, 2013c; Gunay and Aydin, 2015), nation-states and in the world community, the curriculum should provide opportunities to reflect the complex national identities within the growing diversity of the world (Banks, 2004).

## Global citizenship

According to Carabain *et al.* (2012, p. 30):

> The global dimension of citizenship is manifested in behavior that does justice to the principles of mutual dependency in the world, the equality of human beings and the shared responsibility for solving global issues.

In addition, Oxfam (2006) stated that a global citizen respects and values diversity, as well as realizes the presence of a wider world and understands how it functions. Moreover, besides taking responsibility for their actions, global citizens know their role as a world citizen (Nanackchand and Berman, 2012), and thus take an active part in the community, both locally and globally. It is

likewise important that a global citizen be severely disturbed by social injustice, and consequently willing "to make the world a more equitable and sustainable place" (Oxfam, 2006, p. 2).

Given the current promotion of global citizenship as a central component of social studies programs in many countries, including the USA, the UK, Canada, Australia and New Zealand, the question of multiple citizenship identities arises (White and Openshaw, 2002). As Scott and Lawson (2002) observed, multiple citizenship identities of this type imply an intermingling of local, national and global elements, with the strong implication that these diverse elements can and should be reconciled. A crucial issue relating to the whole global citizenship phenomena concerns the place and role of the nation-state in the development of civic virtue (White and Openshaw, 2002, p. 151). Moreover, Abdi and Shultz (2008) argued that global citizenship aims to expand inclusion and power, and provides the ethical and normative framework to make this a legitimate and far-reaching project, whereby citizenship is a product of diversity, rather than an institutional tool serving particular groups. Furthermore, several scholars, including Osler and Vincent (2002) and Marshall (2007), proposed the notion of "global citizenship," which advocates empathy and solidarity with all peoples, along with rights and responsibilities that are valid across national boundaries.

## Global citizenship education

Educators in nation states are obliged to reevaluate citizenship education in response to the increase in racial, ethnic, cultural and language diversity (Banks, 2004). According to Banks (2008), conceptions of citizenship and citizenship education around the world face challenges from a number of historical, political, social and cultural developments. For example, Castles (2004) suggested that the principles of nation-states are no longer the absolute authority in organizing economic, political, cultural and social life in a country due to increased international networks. Furthermore, Castles (2004) argued that people used to be a citizen of only one state; however, in the twenty-first-century world, millions of people travel to different countries, and they feel that they are members of multiple places, rather than of one single nation-state. In addition, worldwide immigration, globalization and the tenacity of nationalism have stimulated both novel thinking and controversy about citizenship and citizenship education (Gutmann, 2004). Taking this tide of changes into consideration, a revision of citizenship education appears indispensable, such that students might be assured to function well outside their countries' borders (Banks, 2004).

According to Osler (2012), the aim of global citizenship education is to provide young people with the ability to develop their identities, participate actively in society and interact with others within the framework of respect. She further suggested that education for citizenship must be suitable with the histories, languages and the cultures of groups other than the dominant group in the country. Furthermore, it must reinforce the positive approach toward diversity, and encourage learners to critically analyze possible situations related to diversity issues they might face in their daily lives.

In an international panel, whose goal was to establish some principles and guidelines for bettering citizenship education programs and preparing learners as effective global citizens, four principles for citizenship education were developed (Banks *et al.*, 2005, pp. 11-13):

(1) Students should learn about the complex relationships between unity and diversity in their local communities, the nation and the world.

(2) Students should learn about the ways in which people in their community, nation and region are increasingly interdependent with other people around the world and are connected to the economic, political, cultural, environmental and technological changes taking place across the planet.

(3) The teaching of human rights should underpin citizenship education courses and programs in multicultural nation-states.

(4) Students should be taught knowledge about democracy and democratic institutions and provided opportunities to practice democracy.

According to United Nations Educational, Scientific and Cultural Organization (UNESCO) (2014), the aim of global citizenship education is to equip learners with values, knowledge and skills that are based on and instill respect for human rights, social justice, diversity, gender equality and environmental sustainability and that empower learners to be responsible global citizens. Moreover, global citizenship education makes learners aware of their rights and responsibilities for a better world and future [United Nations Educational, Scientific and Cultural Organization (UNESCO), (2014)]. Furthermore, Kerr (2005, p. 80) emphasized that students' experiences of and attitudes toward citizenship education should be the focal point of citizenship education policy and research in the area because "young people are a vital source of information and insights about citizenship education." He further suggested that schools have a crucial impact on students in terms of citizenship education in that experiences in schools influence students' conceptions of and knowledge on citizenship.

Since 1963, global citizenship has gained recognition along with national citizenship during the process of European membership of Turkey; therefore, the transition from the national citizenship toward global citizenship also brings out a new concept of European citizenship among the countries in Europe (Aydin and Kaya, 2017; Ersoy, 2010). Turkish Ministry of National Education (MEB) has made some revisions in the national education program that comprehend Turkey's European Membership integration process (The Turkish Ministry of National Education-MEB, 2001). In the scope of revisions, Ersoy also argued that global citizenship has found its place in Social Studies Education Program in terms of increasing awareness of concept of citizenship beyond national framework and developing recognition for global citizenship. MEB also made some further revisions such as democratic education, cultural democracy and human rights in social science curriculum. In addition, the Turkish Government has enacted several laws and promoted campaigns toward the inclusion of other cultures and ethnicities in education, which have started to attract more interest since the past decade (Aydin, 2012; Damgaci and Aydin, 2013). In this vein, the purpose of this study is to develop a scale to determine undergraduate students' attitudes toward global citizenship education and diversity and the contribution of the courses and instructors. In this context, the following research questions guided the study:

*RQ1.* What are the exploratory factor analysis results of Global Citizenship Education and Diversity Attitude Scale (GCEDS)?

*RQ2.* What are the confirmatory factor analysis results of GCEDS?

*RQ3.* What are the internal consistency reliability results of GCEDS?

## Methodology
In this study, a quantitative descriptive research design was used to test the validity and reliability of GCEDS, and to describe the psychometric features of the scale with a pilot scheme.

*Scale development group*
GCEDS is a scale developed for undergraduate students in Social Studies Education Departments. To determine the validity and reliability (Cronbach alpha reliability co-efficient for internal consistency) of the scale, data from two groups of students were gathered. The first group, whose results were used for the exploratory factor analysis, consisted of 147 undergraduate students (64 males, 83 females; 44 freshman, 48 sophomore, 48 junior and 7 senior students) from three large public universities in Istanbul, Turkey. For the confirmatory factor analysis (CFA), data were gathered from a second group that consisted of 257 undergraduate students (122 males, 135 females; 76 freshman, 78 sophomore, 67 junior and 36 senior students) from the same universities as the first group. The data collection was administered during the spring term of 2015. The scale was applied to the two groups with one-month interval.

*Scale development procedure*
According to the relevant literature, the scale development process should follow certain steps (Cohen and Swerdlik, 2013; Crocker and Algina, 1986; DeVellis, 2014; Seker and Gencdogan, 2014). In the development of GCEDS, the similar steps listed below were followed:

- defining the purpose and target audience of the scale;
- deciding on the scope and content of the scale;
- writing items based on the scope and content determined previously;
- checking the items and creating the scale form;
- identifying the methods to score the items and procedures for data analysis;
- piloting the scale in the scale development group;
- scoring the items and analyzing the data; and
- creating the final draft of the scale based on results

*Data collection*
GCEDS was designed in three different sections before the pilot scheme. The first section aimed to collect data about attitudes and consisted of 21 items. The second section aimed to collect data about the contribution of undergraduate courses to Global Citizenship Education and consisted of 27 items. The third section aimed to collect data about the contribution of the instructors and consisted of 11 items. The items were designed as a five-point Likert ranging from strongly disagree to strongly agree. Before developing the scale, the researchers reviewed the literature on citizenship, democracy, multiculturalism and global citizenship education. In accordance with the literature, the items of the scale were developed. Then, peer-review feedback was taken from five doctorate students in the field of multicultural education. After that, the scale was presented to three experts in the field of education. After the revision and finalization of the scale based on their feedback and comments, a pilot scheme was administered.

According to the results of the pilot scheme, the following results were determined:

- In the first section of the scale (attitudes), six items (items numbered 4, 9, 10, 16, 19 and 20) presented a low load (below 0.300) in terms of total correlation. Based on the literature, these six items were eliminated, and 15 items remained in the first section of the scale, which were renumbered. According to the redesignated numbering,

Items 1, 6, 10, 12, 14 and 15 compose "Cultural Respect (CS)" dimension. The highest possible score from this dimension is 30. Items 2, 4, 5 and 11 compose "Benefits of Global Citizenship Education (BGCE)" dimension. The highest possible score from this dimension is 20. Items 3, 7, 8, 9 and 13 compose "Bias Against Global Citizenship Education (BAGCE)" dimension. The highest possible score from this dimension is 25. Items 3, 7, 8, 9 and 13 are scored reversely, as they have either a negative meaning or negative load.

- In the second section of the scale (contribution of courses), five items (items numbered 29, 30, 38, 41 and 42) presented a low load (below 0.300) in terms of total correlation. Based on the literature, these five items were eliminated, and 22 items remained in the second section of the scale, which were renumbered. According to the redesignated numbering, Items 3, 5, 7, 9, 11, 13, 15 and 17 compose "Building a Global Community and Citizens (BGCC)" dimension. The highest possible score from this dimension is 40. Items 1, 4, 6, 8, 10, 12 and 14 compose "Raising Awareness for Citizenship and Democracy (RACD)" dimension. The highest possible score from this dimension is 35. Items 2, 16, 18, 19, 20, 21 and 22 compose "Respecting Different Cultures (RDC)" dimension. The highest possible score from this dimension is 35.

- In the third section of the scale (contribution of instructors), two items (items numbered 52 and 55) presented a low load (below 0.300) in terms of total correlation. Based on the literature, these two items were eliminated, and nine items remained in the second section of the scale, which were renumbered. According to the redesignated numbering, Items 1, 2, 3, 4, 5, 6, 7, 8 and 9 compose "Instructors' Sensitivity to Global Citizenship (ISGC)" dimension. The highest possible score from this dimension is 45.

*Data analysis*

The data obtained were transferred into IBM-SPSS 22 and AMOS 22 programs. For validity and reliability of GCEDS, techniques such as Kaiser–Meyer–Olkin (KMO) test, Bartlett Sphericity test, varimax rotation method and Cronbach alpha reliability co-efficient were used (Buyukozturk, 2013; Ozdamar, 2013). CFA was administered with AMOS 22. The details of the analyses are presented in the "Results" section.

**Results**

*Construct validity (exploratory factor analysis)*

The construct validity of GCEDS was determined via principal component analysis. In the principal component analysis, KMO test and Bartlett Sphericity test were used to determine whether the data file was suitable for factor analysis, and varimax rotation method was used to better reveal the factor structure. The details of these analyses are as follows:

To determine the factor structure of GCEDS, it was tested whether the data obtained from the pilot scheme group are suitable for factor analysis (Buyukozturk, 2013; Ozdamar, 2013):

- KMO values for the first (attitude), second (contribution of courses) and the third (contribution of instructors) sections of the scale were measured as 0.887, 0.947 and 0.938, relatively. The fact that these values were above 0.50 indicate that the data set was suitable for factor analysis.

- The results of Bartlett test were measured as ($\chi^2 = 1{,}141.105$; SD = 105, $p < 0.01$) for the first part of the scale (attitude), ($\chi^2 = 2{,}840.766$; SD = 231, $p < 0.01$] for the second part (contribution of courses) and ($\chi^2 = 1{,}043.678$; SD = 36, $p < 0.01$) for the third part (contribution of instructors). The fact that the significance level proved to be high in the Bartlett test indicates that factor analysis can be applied.

According to the results of exploratory factor analysis via principal component analysis, in the first part of the scale (attitudes), items numbered 4, 9, 10, 16, 19 and 20 presented a low load (below 0.300) in terms of total correlation. Thus, these six items were eliminated from the scale. The load values of the remaining items range between 0.375 and 0.779. Item total correlations range between 0.345 and 0.814. The variance value of the three factors that emerged as a result of varimax rotation procedure is 62.899 per cent for attitudes toward global citizenship education variable. The load value of items and item total correlations are presented in Table I.

As can be seen in Table I, the initial factor load values of the remaining items are not below 0.375, and item total correlations are not below 0.345. The variance is 62 per cent. These values are considered to be acceptable for scale development in social sciences (Buyukozturk, 2013).

Based on the exploratory factor analysis via principal component analysis, in the second part of the scale (contribution of courses), items numbered 29, 30, 38, 41 and 42 presented a low load (below 0.300) in terms of total correlation, and were excluded from the scale. The load values of the remaining items range between 0.437 and 0.849. Item total correlations range between 0.574 and 0.810. The variance value of the three factors that emerged as a result of varimax rotation method is 70.836 per cent for attitudes toward global citizenship education variable. The load value of items and item total correlations are presented in Table II.

As can be observed from Table II, the initial factor load values of the remaining items are not below 0.437, and item total correlations are not below 0.574. The variance is 70 per cent.

According to the results of exploratory factor analysis via principal component analysis, in the third part of the scale (contribution of instructors), items numbered 52 and 55 presented a low load (below 0.300) in terms of total correlation, and were eliminated from the scale. The load values of the remaining items range between 0.599 and 0.74. Item total correlations range between 0.717 and 0.816. The variance value of the three factors that emerged as a result of varimax rotation method is 69.442 per cent for attitudes toward global

| Item no. | Initial factor load values | Item-total correlation | Item no. | Initial factor load values | Item-total correlation |
| --- | --- | --- | --- | --- | --- |
| M1 | 0.727 | 0.663 | M11 | 0.429 | 0.418 |
| M2 | 0.511 | 0.472 | M12 | 0.799 | 0.532 |
| M3 | 0.695 | 0.536 | M13 | 0.799 | 0.686 |
| M5 | 0.375 | 0.512 | M14 | 0.699 | 0.742 |
| M6 | 0.586 | 0.345 | M15 | 0.774 | 0.814 |
| M7 | 0.632 | 0.545 | M17 | 0.672 | 0.673 |
| M8 | 0.612 | 0.707 | M18 | 0.533 | 0.574 |
|  |  |  | M21 | 0.593 | 0.476 |

**Notes:** Variance of two factors = 62.899%; cronbach alpha = 0.895

Table I.
Factor analysis initial factor load values and item total correlation results of the first part of GCEDS (attitude)

citizenship education variable. The load value of items and item total correlations are presented in Table III.

As can be observed from Table III, the initial factor load values of the remaining items are not below 0.599, and item total correlations are not below 0.717. The variance is 69 per cent. In the exploratory factor analysis, varimax rotation method was applied to the data set to determine whether there are sub-dimensions in the scale, and if there are, under what sub-dimensions the items can be grouped (Buyukozturk, 2013; Ozdamar, 2013). The dimensions in the three sections of the scale that emerged as a result of varimax rotation are presented in Table IV.

It is observed in Table IV that;

In the attitude section:

- Items 1, 2, 3, 5, 8 and 15 compose a sub-dimension (first sub-dimension). When these first sub-dimension items were analyzed, it was determined that these items are related to cultural respect. The items in this sub-dimension were renumbered as 1, 6, 10, 12, 14 and 15, and named as "Cultural Respect."
- Items 12, 13, 14 and 17 compose a sub-dimension (second sub-dimension). When these second sub-dimension items were analyzed, it was determined that these items are related to the benefits of global citizenship education. The items in this sub-dimension were renumbered as 2, 4, 5 and 11, and named as "Benefits of Global Citizenship Education."

| Item no. | Initial factor load values | Item-total correlation | Item no. | Initial factor load values | Item-total correlation |
| --- | --- | --- | --- | --- | --- |
| S22 | 0.620 | 0.692 | S35 | 0.520 | 0.600 |
| S23 | 0.765 | 0.780 | S36 | 0.798 | 0.775 |
| S24 | 0.741 | 0.729 | S37 | 0.526 | 0.674 |
| S25 | 0.794 | 0.703 | S39 | 0.717 | 0.772 |
| S26 | 0.674 | 0.675 | S40 | 0.644 | 0.727 |
| S27 | 0.742 | 0.810 | S43 | 0.696 | 0.700 |
| S28 | 0.437 | 0.574 | S44 | 0.794 | 0.767 |
| S31 | 0.743 | 0.793 | S45 | 0.808 | 0.797 |
| S32 | 0.709 | 0.698 | S46 | 0.849 | 0.783 |
| S33 | 0.825 | 0.769 | S47 | 0.768 | 0.742 |
| S34 | 0.677 | 0.756 | S48 | 0.737 | 0.756 |

**Notes:** Variance of two factors = 70.836%; cronbach alpha = 0.964

**Table II.**
Factor analysis initial factor load values and item total correlation results of the second part of GCEDS (contribution of courses)

| Item no. | Initial factor load values | Item-total correlation | Item no. | Initial factor load values | Item-total correlation |
| --- | --- | --- | --- | --- | --- |
| T49 | 0.667 | 0.765 | T56 | 0.727 | 0.808 |
| T50 | 0.683 | 0.776 | T57 | 0.720 | 0.803 |
| T51 | 0.737 | 0.815 | T58 | 0.599 | 0.717 |
| T53 | 0.740 | 0.816 | T59 | 0.647 | 0.750 |
| T54 | 0.731 | 0.808 | | | |

**Notes:** Variance of two factors = 69.442%; cronbach alpha = 0.944

**Table III.**
Factor analysis initial factor load values and item total correlation results of the third part of GCEDS (contribution of instructors)

| | First part (attitude) Factors | | | | Second part (courses) Factors | | | Third part (instructors) Factor |
| Items | 1 | 2 | 3 | Items | 1 | 2 | 3 | Items | 1 |
|---|---|---|---|---|---|---|---|---|---|
| M3 | 0.820 | | | S46 | 0.837 | | | T53 | 0.860 |
| M1 | 0.792 | | | S47 | 0.776 | | | T51 | 0.858 |
| M2 | 0.680 | | | S44 | 0.776 | | | T54 | 0.855 |
| M15 | 0.624 | | | S45 | 0.759 | | | T56 | 0.853 |
| M8 | 0.540 | | | S48 | 0.755 | | | T57 | 0.848 |
| M5 | 0.509 | | | S43 | 0.734 | | | T50 | 0.826 |
| M12 | | 0.879 | | S39 | 0.682 | | | T49 | 0.817 |
| M13 | | 0.829 | | S40 | 0.638 | | | T59 | 0.804 |
| M17 | | 0.661 | | S33 | | 0.814 | | T58 | 0.774 |
| M14 | | 0.624 | | S36 | | 0.785 | | | |
| M7 | | | 0.748 | S32 | | 0.761 | | | |
| M6 | | | 0.745 | S31 | | 0.644 | | | |
| M21 | | | 0.660 | S34 | | 0.643 | | | |
| M18 | | | 0.627 | S35 | | 0.637 | | | |
| M11 | | | 0.596 | S37 | | 0.545 | | | |
| | | | | S25 | | | 0.830 | | |
| | | | | S24 | | | 0.752 | | |
| | | | | S23 | | | 0.732 | | |
| | | | | S26 | | | 0.723 | | |
| | | | | S27 | | | 0.643 | | |
| | | | | S22 | | | 0.625 | | |
| | | | | S28 | | | 0.555 | | |

**Table IV.**
The dimensions in the three parts of the scale (attitude, courses and instructors) that emerged as a result of varimax rotation, and items under the factors

- Items 6, 7, 11, 18 and 20 compose a sub-dimension (third sub-dimension). When these third sub-dimension items were analyzed, it was determined that these items are related to bias against global citizenship education. The items in this sub-dimension were renumbered as 3, 7, 8, 9 and 13, and named as "Bias Against Global Citizenship Education."

In the courses section:

- Items 39, 40, 43, 44, 45, 46, 47 and 48 compose a sub-dimension (first sub-dimension). When these first sub-dimension items were analyzed, it was determined that these items are related to building a global community and citizens. The items in this sub-dimension were renumbered as 3, 5, 7, 9, 11, 13, 15 and 17, and named as "Building a Global Community and Citizens."

- Items 31, 32, 33, 34, 35, 36 and 37 compose a sub-dimension (second sub-dimension). When these second sub-dimension items were analyzed, it was determined that these items are related to raising awareness for citizenship and democracy. The items in this sub-dimension were renumbered as 1, 4, 6, 8, 10, 12 and 14, and named as "Raising Awareness for Citizenship and Democracy."

- Items 22, 23, 24, 25, 26, 27 and 28 compose a sub-dimension (third sub-dimension). When these third sub-dimension items were analyzed, it was determined that these items are related to respecting different cultures. The items in this sub-dimension were renumbered as 2, 16, 18, 19, 20, 12 and 22, and named as "Respecting Different Cultures."

In the instructors section, items 49, 50, 51, 53, 54, 56, 57, 58 and 59 compose a sub-dimension. When these items were analyzed, it was determined that these items are related to the instructors' sensitivity to global citizenship. The items in this sub-dimension were renumbered as 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, and named as "Instructors' Sensitivity to Global Citizenship".

*Confirmatory factor analysis*

A CFA was applied to GCEDS to confirm the new structure of GCEDS, which emerged according to the exploratory factor analysis. The model that emerged as the result of the analysis is presented in Figure 1.

As indicated in Figure 1, the chi-square and degree of freedom values which were obtained as the result of CFA were $\chi^2 = 192.276$ (df = 83, $p < 0.01$), $\chi^2 = 487.817$ (df = 202, $p < 0.01$) and $\chi^2 = 56.965$ (df = 24, $p < 0.01$), and the values obtained were $\chi^2/df = 2.317$, $\chi^2/df = 2.415$ and $\chi^2/df = 2.374$, relatively. The fact that the values were below 3 indicates a perfect fit (Joreskog and Sorbom, 1993; Kline, 2005; Sumer, 2000).

Root mean square error of approximation (RMSEA) is one of the widely used fit indices in confirmatory analysis. If the RMSEA value is 0.05 or lower, it is an indication of data consistency. This value is acceptable up to 0.08 (Browne and Cudeck, 1989; Hu and Bentler,
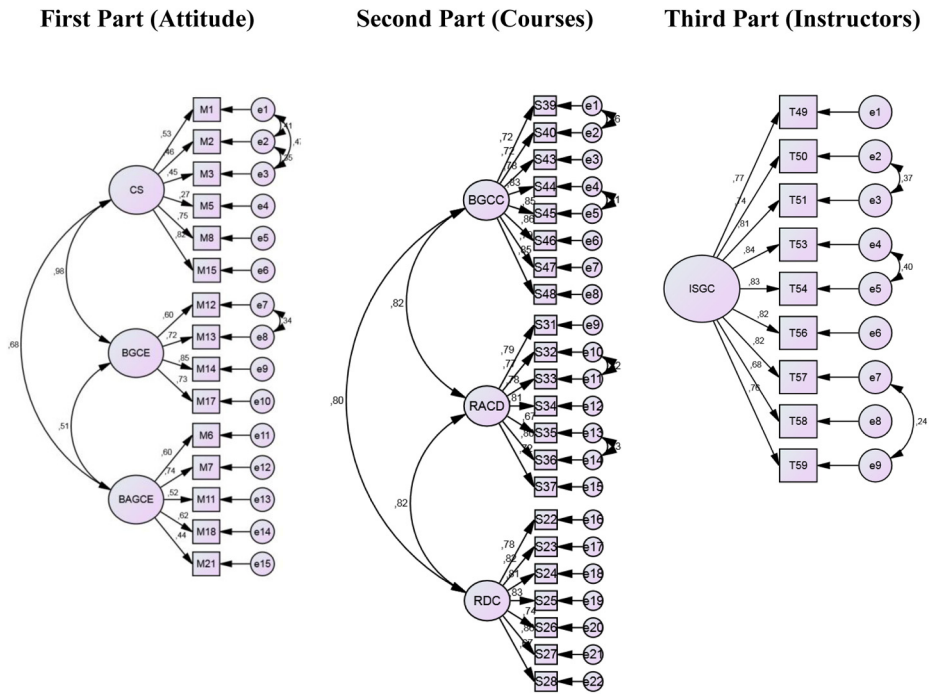


**Figure 1.**
Diagram of confirmatory factor analysis of Global Citizenship Education and Diversity Scale (standardized values)

**Notes:** CS = Cultural respect; BGCE = Benefits of Global Citizenship Education; BAGCE = Bias Against Global Citizenship Education; BGCC = Building a Global Community and Citizens; RACD = Raising Awareness for Citizenship and Democracy; RDC = Respecting Different Cultures; ISGC = Instructors' Sensitivity to Global Citizenship

1999; Simsek, 2007; Vieira, 2011). The RMSEA values in this research are 0.072, 0.074, and 0.073, which are acceptable.

The fact that comparative fit index (CFI) and incremental fit index (IFI) values were above 0.90 is an indication that model and fitness correspond to a "perfect fit" (Aydin and Aslan, 2016; Bentler, 1990; Hu and Bentler, 1999; Sumer, 2000; Simsek, 2007; Cokluk *et al.*, 2010). In the analysis, it was measured that CFI = 0.926, 0.936 and 0.981, and IFI = 0.927, 0.936 and 0.981. In this context, it is safe to say that "Global Citizenship Education and Diversity Scale" is confirmed with fit statistics obtained from the three sectional CFA with three-factor structure for the first and second sections and one-factor structure for the third section.

*Reliability analysis (Cronbach alpha test)*
In the exploratory factor analysis, it was revealed that this scale is composed of three sections; the first and second section has three sub-dimensions, and the third section has one sub-dimension. Cronbach alpha reliability values were measured and additivity tests were applied for each and every one of these sub-dimensions. The results are presented in Table V.

Table V shows that:

(1) In the attitude section, Cronbach alpha reliability values were measured as 0.843 for the first sub-dimension, 0.870 for the second sub-dimension and 0.946 for the third sub-dimension.

(2) In the courses section, Cronbach alpha reliability values were measured as 0.946 for the first sub-dimension, 0.919 for the second sub-dimension and 0.915 for the third sub-dimension.

(3) In the instructors section, Cronbach alpha reliability value was measured as 0.944.

Reliability co-efficiencies above 0.70 are considered to be highly reliable (Ozdamar, 2013). Thus, these sub-scales have high reliability. In addition, these sub-scales are Likert-type additive sub-scales in terms of scoring (Tukey non-additivity $p > 0.05$).

**Conclusion**
In analyzing the Turkish students' attitudes toward global citizenship education and diversity, and the contribution of the courses and instructors, one significant approach has been to consider how global citizenship education is taken up in a social science courses or skills and instructors' awareness' acquisition approach to the knowledge society as an instrumental curricular concept based on transmitting what are perceived as new and better skills. According to Banks (2017), Global migration, "the rise of populist nationalism, and the quest by diverse racial, ethnic, cultural, linguistic, and religious groups for recognition, civic equality, and structural inclusion within their nation-states have complicated the attainment of citizenship in countries around the world" (p. 1). Scholarship on global citizenship education and diversity in the Turkey traditionally has focused primarily on the dispositions, experiences and learning of teacher education students with a strong perspectives on nationalism (Aydin and Koc-Damgaci, 2017; Turkan *et al.*, 2016). Scholars have focused considerably less attention on the dispositions, experiences and learning of global citizenship educators. By conducting and reporting the results of this study, we have attempted to fill part of this knowledge gap, examining the perceived learning, development and support needs of people teaching global citizenship education courses in teacher education programs across Turkey.

| Section | Sub-dimension | Cronbach alpha | Variance source | Sum of squares | Mean of square | F | df | p |
|---|---|---|---|---|---|---|---|---|
| Attitude | Cultural Respect (CR) | 0.843 | Nonadditivity | 0.002 | 0.002 | 0.003 | 1 | 0.959 |
| | Benefits of Global Citizenship Education (BGCE) | 0.870 | Nonadditivity | 0.076 | 0.076 | 0.176 | 1 | 0.675 |
| | Bias Against Global Citizenship Education (BAGCE) | 0.756 | Nonadditivity | 0.309 | 0.309 | 0.328 | 1 | 0.567 |
| Courses | Building a Global Community and Citizens (BGCC) | 0.946 | Nonadditivity | 0.061 | 0.061 | 0.156 | 1 | 0.693 |
| | Raising Awareness For Citizenship And Democracy (RACD) | 0.919 | Nonadditivity | 0.277 | 0.277 | 0.652 | 1 | 0.420 |
| | Respecting Different Cultures (RDC) | 0.915 | Nonadditivity | 0.818 | 0.818 | 1.826 | 1 | 0.177 |
| Instructors | Instructors' Sensitivity to Global Citizenship (ISGC) | 0.944 | Nonadditivity | 1.072 | 1.072 | 2.351 | 1 | 0.125 |

**Table V.**
Cronbach alpha and additivity test results for the sections and sub-dimensions of GCEDS

According to the results of exploratory and confirmatory factor analyses on GCEDS, the scale has been finalized. Accordingly:

- In the attitudes section, Items 1, 6, 10, 12, 14 and 15 compose "Cultural Respect" dimension. Items 2, 4, 5 and 11 compose "Benefits of Global Citizenship Education" dimension. The highest possible score from this dimension is 20. The highest possible score from this dimension is 30. Items 3, 7, 8, 9 and 13 compose "Bias Against Global Citizenship Education (BAGCE)" dimension.

- In the courses section, Items 3, 5, 7, 9, 11, 13, 15 and 17 compose "Building A Global Community and Citizens (BGCC)"dimension. The highest possible score from this dimension is 40. Items 1, 4, 6, 8, 10, 12 and 14 compose "Raising Awareness for Citizenship and Democracy (RACD)" dimension. The highest possible score from this dimension is 35. Items 2, 16, 18, 19, 20, 21 and 22 compose "Respecting Different Cultures (RDC)" dimension.

- In the instructors section, Items 1, 2, 3, 4, 5, 6, 7, 8 and 9 compose "Instructors' Sensitivity to Global Citizenship (ISGC)" dimension.

Further research with GCEDS would be of great help in determining the technical features of the scales better. Thus, investigation and experimentation into GCEDS with different participants are highly recommended to obtain diversified evidence for the validity and reliability of the scale. The findings of this study can help inform colleges and schools of education dedicated to providing the supports necessary to help their instructors teach global citizenship education and diversity and related social sciences courses effectively. A few studies also supported the findings of this paper, for example, The Government of Catalonia, Cyprus, Estonia, and Portugal introduced the National Accord about Immigration that aims "to promote coexistence in a plural society that shows its cultural diversity" and to adapt public services towards plurality (Issa *et al.*, 2015). The findings also can inform professional associations and other entities with access to global citizenship teacher educators to hone their offerings in ways that respond more effectively to the perceived needs of their citizens. In addition, Tasneem (2005, p. 192) examined National Curriculum for England and found out that teachers need to provide meaningful opportunities for students to actively participate in school and community based activities and projects related to global citizenship and student's experiences of citizenship within the school and local community influence their commitment to values of "social justice and equity" and "respect for diversity" as global citizens. The development sector produced texts that provide opportunities for teachers and students to investigate links between local and global citizenship issues, develop skills of participation and reflection and examine their own values and attitudes. They serve, finally, as a reminder that there is little hope of sufficiently meeting the global citizenship education needs of future teachers without simultaneously ensuring that the learning needs of the people teaching those teachers are sufficiently addressed.

## References

Abdi, A.A. and Shultz, L. (Eds) (2008), *Education for Human Rights and Global Citizenship*, State University of New York Press, Albany, NY.

Alanay, H. and Aydin, H. (2016), "Multicultural education: the challenges and attitudes of undergraduate students in Turkey", *Education and Science*, Vol. 41 No. 184, pp. 169-191.

Aydin, H. (2012), "Multicultural education curriculum development in Turkey", *Mediterranean Journal of Social Sciences*, Vol. 3 No. 3, pp. 277-286.

Aydin, H. (2013a), "A literature-based approaches on multicultural education", *The Anthropologist*, Vol. 16 Nos 1/2, pp. 31-44.

Aydin, H. (2013b), "Educational reform in Nigeria: the case of multicultural education for peace, love, and tolerance", *South African Journal of Education*, Vol. 33 No. 1, pp. 1-19.

Aydin, H. (2013c), *Dünyada Ve Türkiye'de Çokkültürlü Eğitim Tartışmaları Ve Uygulamaları. [Discussions and Practice of Multicultural Education in Turkey and in the World]*, Nobel Publishing House, Ankara.

Aydin, H. and Aslan, D. (2016), "Reliability and validity testing of a new scale for measuring attitudes toward pedagogical teacher training", *Journal of Education and Learning*, Vol. 5 No. 3, pp. 1-9.

Aydin, H. and Kaya, Y. (2017), "Educational needs and barriers for Syrian refugee students in Turkey: a qualitative case study", *Intercultural Education*, Vol. 28 No. 5.

Aydin, H. and Koc-Damgaci, F. (2017), "From empire to republic: citizenship, pluralism, and diversity in Turkey", in James, A.B. (Ed.), *Global Migration, Structural Inclusion, and Education Across Nations*, American Educational Research Association (AERA) Press, Washington, DC, pp. 351-377.

Banks, J.A. (1997), *Educating Citizens in a Multicultural Society*, Teachers College Press, New York, NY.

Banks, J.A. (2003), *Diversity and Citizenship Education: Global Perspectives*, Jossey-Bass, San Francisco, CA.

Banks, J.A. (2004), "Introduction: democratic citizenship education in multicultural societies", in Banks, J.A. (Ed.), *Diversity and Citizenship Education: Global Perspectives*, Jossey-Bass, San Francisco, CA.

Banks, J.A. (2007), *Educating Citizens in a Multicultural Society*, Teachers College Press, New York, NY.

Banks, J.A. (Ed.) (2017), *Citizenship Education and Global Migration: Implications for Theory, Research, and Teaching*, American Educational Research Association, Washington, DC.

Banks, J.A. (2008), "Diversity, group identity, and citizenship education in a global age", *Educational Researcher*, Vol. 37 No. 3, pp. 129-139, doi: 10.3102/0013189X08317501.

Banks, J.A. (2010), "Multicultural education: characteristics and goals", in Banks, J.A. and Banks, C.H.M. (Eds), *Multicultural Education: Issues and Perspectives*, Wiley & Sons, Hoboken, NJ.

Banks, J.A., McGee Banks, C.A., Cortes, C.E., Hahn, C.L., Merryfield, M.M., Moodley, K.A., Murphy-Shigematsu, S., Osler, A., Park, C. and Parker, W.C. (2005), *Democracy and Diversity: Principles and Concepts for Educating Citizens in a Global Age*, Center for Multicultural Education, University of Washington, Seattle, WA.

Bentler, P.M. (1990), "Comparative fit indexes in structural models", *Psychological Bulletin*, Vol. 107 No. 2, pp. 238-246.

Browne, M.W. and Cudeck, R. (1989), "Single sample cross-validation indexes for covariance structures", *Multivariate Behavioral Research*, Vol. 24 No. 4, pp. 445-555.

Buyukozturk, S. (2013), *Sosyal Bilimler İçin Veri Analizi El Kitabı, [Handbook for Data Analysis in Social Sciences]*, Pegema Yayıncılık, Ankara.

Carabain, C., Keulemans, S., van Gent, M. and Spitz, G. (2012), *Global Citizenship Public Support for Participation*, Amsterdam: NCDO Press.

Castles, S. (2004), "Migration, citizenship, and education", in Banks, J.A. (Ed.), *Diversity and Citizenship Education: Global Perspectives*, San Francisco, CA: Josey-Bass.

Cohen, R.J. and Swerdlik, M.E. (2013), *Psikolojik Test Ve Değerlendirme, Testler Ve Ölçmeye Giriş, [Psychological Testing and Assessment, an Introduction of Test and Measurement]*, (Çev.Ed.Ezel Tavsancıl), Nobel Yayıncılık, Ankara.

Cokluk, O., Sekercioglu, G. and Buyukozturk, S. (2010), *Sosyal Bilimler İçin Çok Değişkenli İstatistik, [(Multivariate Statistics for Social Sciences]*, Pegem Akademi, Ankara.

Crocker, L. and Algina, J. (1986), *Introduction to Classical and Modern Test Theory*, Holt, Rinehart and Winston Inc, New York, NY.

Damgaci, F. and Aydin, H. (2013), "Faculty members' perception on multicultural education", *Electronic Journal of Social Sciences*, Vol. 12 No. 45, pp. 325-341.

Demaine, J. (2002), "Globalization and citizenship education", *International Studies in Sociology of Education*, Vol. 12 No. 2, pp. 117-128, doi: 10.1080/09620210200200086.

DeVellis, R.F. (2014), *Ölçek Geliştirme, Kuram Ve Uygulamalar, [Scale Development] (Çev.Ed. Tarık Totan)*, Nobel Yayıncılık, Ankara.

Ersoy, F.A. (2010), "Social studies education program and textbooks in Turkey: transition from national citizenship toward European and global citizenship", Paper presented at the European Education Research Association (EERA), Helsinki, 20-22 June.

Faltis, C. (2014), "Toward a race radical vision of bilingual education for Kurdish users in Turkey: a commentary", *Journal of Ethnic and Cultural Studies*, Vol. 1 No. 1, pp. 1-5.

Gay, G. (2000), *Culturally Responsive Teaching: Theory, Research and Practice*, Teacher College Press, New York.

Gay, G. (2003), "The importance of multicultural education, association for supervision and curriculum development", available at: www.achievementseminars.com/seminar_series_2008_2009/readings/importance_multicultural_education.pdf (accessed 20 April 2017).

Gunay, R. and Aydin, H. (2015), "The inclinations in studies on multicultural education in Turkey: a content analysis study (2005-2014)", *Education and Science*, Vol. 40 No. 178, pp. 1-22.

Gutmann, A. (2004), "Unity and diversity in democratic multicultural education: creative and destructive tensions", in Banks, JA. (Ed.), *Diversity and Citizenship Education: Global Perspectives*, Jossey-Bass, San Francisco, CA.

Issa, T., Olabarriera, O.J., Hollingworth, S. and Severiens, S. (2015), *Citizenship Education and Ethnic and Cultural Diversity: A Scoping Study of SIRIUS Network Countries on the Education of Children from a Migrant Background*, European Union Commission Press, Brussels.

Hu, L.T. and Bentler, P.M. (1999), "Cut off criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6 No. 1, pp. 1-55.

Joreskog, K.G. and Sorbom, D. (1993), *Lisrel 8: Structural Equation Modeling with the Simplis Command Language*, Erlbaum Associates Publishers, Hillsdale.

Kaya, I. and Aydin, H. (2014), *Pluralism, Multicultural Education, and Multilingual Education*, Ani Academic Publishing, Ankara.

Kaya, Y. (2015), "The opinions of primary school, turkish language and social science teachers regarding education in the mother tongue (Kurdish)", *Journal of Ethnic and Cultural Studies*, Vol. 2 No. 2, pp. 33-46.

Kerr, D. (2005), "Citizenship in England – listening to young people: New insights from the citizenship education longitudinal study", *International Journal of Citizenship and Teacher Education*, Vol. 1 No. 1, pp. 74-96.

Kline, R.B. (2005), *Principles and Practice of Structural Equation Modeling*, The Guilford Press, New York, NY.

KONDA (2011), *Kürt Meselesinde Algı Ve Beklentiler [Perceptions and Expectations in the Kurdish Question]*, İletişim Yayınları, Istanbul.

Ladson-Billings, G. (1995), "Toward a theory of culturally relevant pedagogy", *American Educational Research Journal*, Vol. 32 No. 3, pp. 465-491.

The Turkish Ministry of National Education-MEB (2001), "The needs for developing the new education programs in Turkey", available at: http://ttkb.meb.gov.tr/programlar/prog_giris/prog_giris_1.html (accessed 25 April 2017).

Marshall, H. (2007), "Global education in perspective: fostering a global dimension in an English secondary school", *Cambridge Journal of Education*, Vol. 37 No. 3, pp. 355-374.

Mncube, V. (2008), "Democratization of education in South Africa: issue of social justice and the voice of learners", *South African Journal of Education*, Vol. 28 No. 1, pp. 77-90.

Nanackchand, V. and Berman, K. (2012), "Visual graphics for human rights, social justice, democracy and the public good", *South African Journal of Education*, Vol. 32 No. 4, pp. 465-476.

Oran, G. (2009), "Culturally relevant pedagogy", available at: www.education.com/reference/article/culturally-relevant-pedagogy/ (accessed 10 May 2017).

Osler, A. (2012), "Citizenship education and diversity", in Banks, J.A. (Ed.), *Encyclopedia of Diversity in Education*, Sage, London, pp. 1-18.

Osler, A. and Vincent, K. (2002), *Citizenship and the Challenge of Global Education*, Trentham Books.

Oxfam (2006), *Getting Started with Global Citizenship: A Guide for New Teachers*, Oxfam, Oxford.

Ozdamar, K. (2013), *Paket Programlar Ile İstatistiksel Veri Analizi (9. Baskı), [Statistical Data Analysis with Packaged Software]*, Nisan Kitabevi, Eskişehir.

Ozfidan, B. and Burlbaw, L. (2016), "Perceptions of bilingual education model in Spain: how to implement a bilingual education model in Turkey", *Journal of Ethnic and Cultural Studies*, Vol. 3 No. 1, pp. 49-58.

Scott, D. and Lawson, H. (2002), "Democracy at the crossroads: international perspectives on global citizenship", in White, C., Openshaw, R. and Benson, P. (Eds), *Democracy at the Crossroads: International Perspectives on Critical Citizenship Education*, Peter Lang Publishing, New York, NY.

Seker, H. and Gencdogan, B. (2014), *Psikolojide Ve Eğitimde Ölçme Aracı Geliştirme [Developing an Assessment Tool in Psychology and Education]*, Nobel Yayıncılık, Ankara.

Simsek, O.F. (2007), *Yapısal Eşitlik Modellemesine Giriş: Temel İlkeler Ve LISREL Uygulamaları, [Introduction to Structural Equation Modeling: Basic Principles and LISREL Applications]*, Ekinoks Yayınlari, Istanbul.

Sumer, N. (2000), "Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar [structural equation models: basic concepts and model implementations]", *Türk Psikoloji Yazıları*, Vol. 3 No. 6, pp. 49-73.

Tasneem, I. (2005), "Global citizenship education: mainstreaming the curriculum?", *Cambridge Journal of Education*, Vol. 35 No. 2, pp. 177-194, doi: 10.1080/03057640500146823.

Turkan, A., Aydin, H. and Uner, S. (2016), "The relationship between teacher candidates' attitudes towards multicultural education and their epistemological beliefs", *Online Journal of Elementary Education*, Vol. 15 No. 1, pp. 148-159.

United Nations Educational, Scientific and Cultural Organization (UNESCO) (2014), "Global citizenship education", available at: www.unesco.org/new/en/global-citizenship-education (accessed 23 April 2017).

Vieira, A.L. (2011), "Preparation of the analysis", *Interactive LISREL in Practice*, Springer, London.

White, C. and Openshaw, R. (2002), "Translating the national to the global in citizenship education", in David, S. and Helen, L. (Eds), *Citizenship Education and the Curriculum*, Ablex Publishing, Westport, CT, pp. 151-167.

Yigit, I.H. and Tatch, A. (2017), "Syrian refugees and Americans: perceptions, attitudes and insights", *American Journal of Qualitative Research*, Vol.1 No. 1, pp. 13-31.

**Further reading**

Banks, J.A. (2014), *An Introduction to Multicultural Education*, Pearson Publication Inc, San Francisco, CA.

**Corresponding author**
Hasan Aydin can be contacted at: haydin@fgcu.edu