Cultural intelligence and global citizenship in gifted/talented students and their non-gifted peers

American Journal of Social Sciences and Humanities
Vol. 8, No. 1, 55-72, 2023
e-ISSN: 2520-5382

(*Corresponding Author*)

Adnan Ozbey[1]
Fatima Firdevs Adam Karduz[2]

[1]*School of Education, University of North Texas, USA.*
Email adnanozbey@hotmail.com
[2]*Faculty of Education, Sivas University, Turkey.*
Email karduzfirdevs@cumhuriyet.edu.tr

ABSTRACT

Cultural intelligence, or cultural quotient (CQ), and global citizenship are essential skills for individuals in today's increasingly interconnected and globalized world. Cultural intelligence helps individuals effectively navigate and understand cultural differences, promoting effective communication and cooperation. This study primarily aims to compare the cultural intelligence and global citizenship levels of gifted and non-gifted students. Another aim of the study is to discover the possible relationship level between gifted students' cultural intelligence and global citizenship levels. The relational scanning model was used, and 399 high school students attending 10th, 11th, and 12th grades were included in the study. The majority (209, or 54.1%) were non-gifted high school students and 177 (40.6%) were gifted high school students. The Cultural Intelligence Scale and Universal Citizenship Scale were employed for data collection. The results indicate that gifted students have significantly higher cultural intelligence than their average peers. Similarly, it has been demonstrated that gifted students have significantly greater global citizenship than their average peers. A significant relationship was found between gifted students' cultural intelligence levels and global citizenship levels. The cultural intelligence level of gifted students significantly predicts the level of global citizenship. Gifted students benefit from high levels of cultural intelligence and global citizenship because it enhances their capacity to engage with diverse cultures and comprehend global issues, thereby fostering their intellectual and personal development.

Keywords: *Cultural intelligence, Global citizenship, Gifted, Talented.*

DOI: 10.55284/ajssh.v8i1.871
Citation | Ozbey, A., & Karduz, F. F. A. (2023). Cultural intelligence and global citizenship in gifted/talented students and their non-gifted peers. *American Journal of Social Sciences and Humanities, 8*(1), 55–72.

Funding: This study received no specific financial support.
Competing Interests: The authors declare that they have no competing interests.
History: Received: 31 October 2022/ Revised: 10 January 2023/ Accepted: 27 January 2023/ Published: 22 February 2023
Publisher: Online Science Publishing

Highlights of this paper

- Gifted students have a higher level of cultural intelligence and global citizenship compared to non-gifted students.
- There is a significant correlation between gifted students' cultural intelligence and their levels of global citizenship.
- The cultural intelligence of gifted and talented students is a strong indicator of their global citizenship.

1. INTRODUCTION

Giddens (2006) defines culture as a way of life that individuals or groups choose to follow while living in the society they belong to. It is accepted as the legacy of the historical inquiry and development process, and it shows the standards that people follow regarding judgments and attitudes in society (Ahmadi, Shahmohamadi, & Araghi, 2011). Culture is the collective mental programming that separates members of a group or community from others (Hofstede, 2011). It subconsciously directs behaviors and thoughts, and shapes harmony, belonging, motivation, business life, social awareness, and an active and effective understanding of citizenship (Livermore & Dyne, 2015). Citizenship can be expressed as a legal status and national identity based on equality and defined by civil, political and social rights (Kymlicka & Norman, 2000). With the effect of globalization, the phenomenon of citizenship has gained new dimensions; concepts such as multiculturalism, cultural intelligence, and global citizenship that require awareness of cultural diversity have emerged.

Nowadays, with the rise of globalization, it has become vital to be able to negotiate effectively between cultures, establish strategic alliances and joint ventures, and adapt to various cultural situations (Adler & Gundersen, 2008; Livermore, 2011), and cultural intelligence plays an essential role in achieving this harmony. Cultural intelligence is the ability of communicating with people coming from other cultural backgrounds, in a safe and effective manner (Ang & Van Dyne, 2008). It requires people to understand the unfamiliar, ambiguous gestures and behaviors of members of other cultures (Earley & Mosakowski, 2004). In this context, cultural intelligence is an individual strategy, skill set, interactive system of knowledge and skills, and adaptation behavior that allows one to understand, choose, adequately interpret and manage situations arising from cultural differences (Kiznyte, Ciutiene, & Dechange, 2015; Malek, 2011; Mercan, 2016a).

Cultural intelligence consists of four dimensions. Metacognitive cultural intelligence involves an individual's mental process that obtains and comprehends cultural knowledge, the control of these processes, observations, planning, awareness, and solutions (Van Dyne, Ang, & Livermore, 2010). Cognitive cultural intelligence is the ability to comprehend the basic structure of cultures and the similarities and differences between cultures in terms of norms, traditions and practices (Ng, Van Dyne, & Ang, 2012; Triandis, 2006). Motivational cultural intelligence reflects the desire to interact with local people in intercultural encounters and adapt to the new culture (Ang et al., 2007; Van Dyne et al., 2012). Behavioral cultural intelligence is the ability to display appropriate verbal and non-verbal behaviors in intercultural interactions (Lee & Sukoco, 2010; VanTassel-Baska & MacFarlane, 2008).

Studies show that cultural intelligence has a significant influence on an efficient and productive intercultural relationship (Chen, Liu, & Portnoy, 2012; Harris, 2006; Triandis, 2006; Triandis, 2008). It guides differences between cultures (Maldonado & Vera, 2014) and influences the adaptation and performance of individuals (Lee & Sukoco, 2010; Nunes, Felix, & Prates, 2017); the education processes of immigrants (Wu & Ang, 2011); global leadership, project management, decision making, strategy development, and understanding the environment (Kiznyte et al., 2015; Livermore, 2011); fast, smooth and stress-free adaptation to the changing social environment (Brislin, Worthley, & Macnab, 2006); and multiculturalism and global citizenship (Ward, Wilson, & Fischer, 2011).

Global citizenship is a natural, positive and active phenomenon related to a global community beyond local or national connections, human identity, solidarity, and validity and compliance of human rights on a global scale (Wintersteiner, Grobbauer, Diendorfer, & Reitmair-Juárez, 2015). When addressing the concept of global citizenship, Guo (2014) pointed out that it is a twenty-first century approach that involves the application of global responsibility and accountability to daily local issues, and that more complicated global issues are approached individually. It involves awareness of not only what is expressed as "other", including cultural values, beliefs and practices that contradict their own values, but also the respect for cultural diversity (Larsen, 2014). In some ways, it can be expressed as humanity having a common destiny (Arneil, 2007). Global citizenship should be handled together with the concepts of sustainable social justice, awareness, cultural diversity, interest, intergroup empathy and responsibility (Katzarska-Miller & Reysen, 2019; Oxfam, 2006). Awareness of global trends and issues constitutes the initial step of a person's position and role in a global context (Jones, 2016), followed by an understanding and appreciation of integrity, helping, showing responsibility and commitment, respecting and valuing cultural diversity, and standing up to rights violations (Cesario, 2016; Israel, Miller, Reed, Brown, & Gibbons, 2011; Reysen & Katzarska-Miller, 2013).

Some researchers accept global citizenship as the most concrete and comprehensive expression of a moral imperative. Accordingly, individuals with a developed consciousness of global citizenship should bear a moral responsibility toward all people in the world (Cabrera, 2008; Dower, 2022; Nussbaum, 1996). It has been emphasized that a moral sensitivity above national politics and culture should be adopted, and global citizenship should be developed based on universal values (Carr, Pluim, & Howard, 2014; UNESCO, 2014). Some researchers have approached it in psychological terms and argued that global citizenship can create a sense of belonging in people and establish a bond between group members. Empathy and prosocial trends are also factors that can affect this process (Golmohamad, 2008; Reysen & Katzarska-Miller, 2013). Global citizenship is closely linked to a general sense of trust, universality, tolerance, openness and love. On the other hand, nationalism, ethnocentrism, and neuroticism negatively affect global citizenship (Pauketat & Mackie, 2016). Regardless of its source, a responsibility to be associated with global citizenship is voluntary because global citizenship has no legal relationship with the nation-state. In other words, global citizenship is expressed relationally by adopting transnational norms and statuses that push or transcend national boundaries and sovereignty through informal ties (Lagos, 2001; Marshall, 2005; Stromquist, 2009).

Cultural intelligence refers to one's ability to engage and communicate with other people coming from different cultures (Sternberg, 2000). Although it is different from academic intelligence, when we consider that individuals with high academic intelligence have a high capacity for responsibility, relationship management, awareness, empathy, and effective communication, there may be a relationship between them. In addition to academic intelligence, gifted/talented students have high potential in terms of social skills (being able to start a conversation, make friends, have close friends, understand others, and joke with people) (Bain & Bell, 2004; Field & Harding, 1998). Their high cognitive abilities enable them to understand themselves and others better and to be equipped enough to manage social relationships (Neihart, 1999). Some researchers have drawn attention to the global awareness of gifted/talented people (Roeper, 2008; Sisk, 2008). Improved moral sensitivity is an important characteristic of gifted students (Ozbey & Saricam, 2016). Gifted students attach great importance to the problems of the world, are concerned about other people's feelings, and are extremely compassionate (Silverman, 1994). They have a sensitive nature based on feelings of sensitivity, love and compassion. Because they form strong bonds with people and places throughout their lives, they have a depth of emotion that can affect their daily lives. They cannot bear to see people suffering. The hypersensitivity of gifted students enables them to easily recognize other people's pain and be aware of their emotions

(Tsai, 2015). Dąbrowski (1972) stated that gifted/talented students have a high level of justice, honesty and responsibility, and that they are willing to correct the mistakes of adults (Lovecky, 1997).

1.1. Significance of the Research

It is an indisputable reality that the world is increasingly becoming a community connected through a global network (Ramirez, 2006; Wintersteiner et al., 2015). Constantly changing conditions and ever-deepening global problems, such as war, terrorism, international migration, refugee crises, hunger, and poverty, that emerge as a result of economic inequality require the rapid development of new global rules and solutions (Dupont & Reckmeyer, 2012; Özel, 2007). Global citizenship transcends all national and cultural borders (Lee, Baring, Maria, & Reysen, 2017) Global Citizenship is one of the solutions for the aforementioned problems because it is a concept with a broad scope of meaning and application, particularly in regards to political identities, moral sensibilities, international competencies, environmental responsibilities, and local actions (Carr et al., 2014; Trede, Bowles, & Bridges, 2013). Global citizenship transcends all national and cultural borders (Lee et al., 2017). Global Citizenship is one of the solutions for the aforementioned problems because it is a concept with a broad scope of meaning and application, particularly in regards to political identities, moral sensibilities, international competencies, environmental responsibilities, and local actions (Carr et al., 2014; Trede, Bowles, & Bridges, 2013). Therefore, a greater number of globally competent citizens with the necessary competencies to live in a world where interdependence is increasing and who have the basic knowledge, skills, tools, attitudes and values is needed (Green, 2012; Reade, Reckmeyer, Cabot, Jaehne, & Novak, 2013).

Individuals with high cultural intelligence have a high capacity to adapt to different environments and conditions, and can predict and interpret what will happen in an intercultural environment (Ang & Van Dyne, 2008; Mohr, 2005). Futhermore, they are eager to share their cultural experiences and knowledge and take on new responsibilities (Farhadi, Ardabili, & Daryani, 2013; McRae, 2012). It has been suggested that cultural intelligence is particularly effective in managing communication and cultural innovation. The development of cultural intelligence is also related to the concept of "global citizenship" as it will improve intercultural relations. Therefore, it is thought that individuals with high cultural intelligence will have a high tendency toward global citizenship. In this context, gifted/talented students stand out as the leaders of the future, both in their own societies and globally (Quiles, 2016), and they can find permanent and rapid solutions to the problems faced by societies (Terry, Bohnenberger, Renzulli, Cramond, & Sisk, 2008). Not many studies have been conducted in the field of education on cultural intelligence (Earley & Ang, 2003), which is one of the new horizons and groundbreaking theories of cultural competence. We expect this study to contribute to education programs and practices so that they can prepare for gifted/talented students.

This study aims to determine if there is a difference between gifted/talented students and students with normal development in terms of cultural intelligence and global citizenship levels, if there is a possible relationship between cultural intelligence and global citizenship, and whether cultural intelligence increases the level of global citizenship.

Based on this, the following five hypotheses have been tested:

1. The cultural intelligence level of gifted/talented students will be statistically significantly higher than their peers with normal development.
2. The global citizenship level of gifted/talented students will be statistically significantly higher than their peers with normal development.
3. Cultural intelligence and citizenship levels of gifted/talented students will differ by gender.

4. There is a statistically significant relationship between gifted students' cultural intelligence and global citizenship levels.
5. The cultural intelligence level of gifted/talented students significantly predicts their global citizenship level.

2. METHOD

The relational screening model, which is a subtype of the general survey model among quantitative research methods, was utilized in this study. General scanning surveys conducted on many elements in the whole population or in a group are analyzed to make general judgments about a whole population or a group within a population. General scanning models permit the execution of single or relational scans. Relational screening models are research models designed to establish the existence and/or degree of covariance between two or more variables (Punch, 2013). The convenience sampling method was employed for data collection due to the advantages it offers, such as its ability to select participants from easily accessible sources, and lesser time, funds and labor costs (Buyukozturk, Kilic-Cakmak, Akgun, Karadeniz, & Demirel, 2015).

2. 1. Study Group

For this study, 399 high school students attending 10^{th}, 11^{th}, and 12^{th} year in Izmir took part in the study. We evaluated the scales separately in the first stage; this revealed that 13 participants had incorrect or missing scales and thus were omitted from the study. As a result, the forms of 386 high school students, comprising 208 (53.9%) female students and 178 (46.1%) male students, were evaluated for the study group. Out of the total, 209 (54.1%) were high school students with normal development and 177 (45.9%) were gifted/talented high school students (Bilsem and Science High School). The participants were aged from 15 to 19.

2.2. Data Collection Tools

2.2.1. Cultural Intelligence Scale (CQS)

This scale was originally developed by Ang et al. (2007), and in 2014, Ilhan and Cetin translated it into Turkish. It is a five-point Likert scale with 20 primary items and four sub-dimensions, namely metacognition, cognition, motivation, and behavior. A correlation of 0.61 was discovered between the CQS and the Intercultural Sensitivity Scale, and a correlation of 0.44 was discovered between the CQS and the Tromso Social Intelligence Scale. Regarding reliability, the scale demonstrated an internal consistency coefficient of 0.85 and a test-retest reliability correlation coefficient of 0.81. The minimum value of $\chi 2$ ($\chi 2 = 418.33$, $N = 512$, $p = 0.00$) was found to be significant in the DFA, and the fit index values are as follows: RMSEA = 0.055, GFI = 0.92, AGFI = 0.90, CFI = 0.96, NFI = 0.93, NNFI = 0.95, RFI = 0.92, IFI = 0.96, SRMR = 0.051, PGFI = 0.73, and PNFI = 0.81. The corrected item-total correlation coefficients varied between 0.33 and 0.64. The study calculated a Cronbach's alpha internal consistency coefficient of 0.86 for the entire scale.

2.2.2. Global Citizenship Scale (GCS)

The GCS was created by Morais and Ogden in 2011 and translated into Turkish by Akin, Saricam et al. in 2014. As a result of the confirmatory factor analysis, the fit index values of the 30 items comprising the three-dimensional model (social responsibility, global competence, and global civic commitment) were calculated as follows: $\chi^2 = 562.22$, sd = 395, RMSEA = 0.038, NFI = 0.90, CFI = 0.90, IFI = 0.91, and SRMR = 0.066. The corrected item-total correlation coefficients ranged between 0.16 and 0.65. The Cronbach's alpha internal consistency reliability

coefficients of the scale were 0.60, 0.69, and 0.86, respectively, and the Cronbach's Alpha internal consistency coefficient for the entire scale was 0.88.

2.3. Procedure

Following the necessary procedures, the required permissions were obtained. The applications were conducted in one class period with the assistance of teachers and school administrations. Volunteer students also assisted with this stage of the study. As a part of the procedure, students were informed of the purpose and significance of the study. They were also notified that participation was voluntary and they could opt out any time. Upon completion of data collection procedure, responses were entered into a computer to be analyzed with parametric tests (the kurtosis and skewness values were between -1.96 and +1.96) using the SPSS 25 package. The independent samples t-test was used for paired comparisons, the Pearson's product-moment correlation analysis was used for variable relationships, and regression analysis was conducted to determine the predictive level. A p-value below the 0.05 significance level was taken as the confidence interval.

3. FINDINGS

To compare the cultural intelligence and global citizenship levels of gifted/talented students and students with normal development, an independent samples t-test, which is a parametric test, was performed and the results are shown in Table 1.

Table 1. T-test values regarding the comparison of the cultural intelligence and global citizenship levels of gifted/talented students and students with normal development.

Scale	Student	N	Mean	SD	T	P
Cultural intelligence	Gifted/Talented	177	3.768	0.5318	5.173	0.000
	Normal	209	3.462	0.5435		
Global citizenship	Gifted/Talented	177	3.158	0.4861	5.508	0.000
	Normal	209	2.848	0.5428		

The results in Table 1 show that the cultural intelligence score averages of the gifted students ($\overline{X}$ = 37.68) are statistically significantly higher than the cultural intelligence score averages ($\overline{X}$ = 34.62) of the students with normal development (t = 5.173, p < 0.005). The global citizenship mean score of the gifted students ($\overline{X}$ = 31.58) is statistically significantly higher than the global citizenship mean score ($\overline{X}$ = 28.48) of the students with normal development (t = 5.508, p < 0.005).

The t-test was applied to determine the status of gifted students' cultural intelligence and global citizenship levels by gender, and the results are shown in Table 2.

Table 2. The t-test values regarding the comparison of gifted students' cultural intelligence and global citizenship levels by gender.

Scale	Gender	N	Mean	SD	t	p
Cultural intelligence	Female	93	3.906	0.4726	3.845	0.000
	Male	84	3.616	0.5299		
Global citizenship	Female	93	3.136	0.4892	-0.671	0.504
	Male	84	3.184	0.4606		

Table 2 shows that mean scores of the gifted/talented female students ($\overline{X}$ = 39.06) are significantly higher than those of the gifted/talented male students ($\overline{X}$ = 36.16) (t = 3.845, p = 0.05). Conversely, there is no statistically significant difference between the mean global citizenship scores of the gifted female students ($\overline{X}$ = 31.36) and the gifted male students ($\overline{X}$ = 31.84) (t = -0.671, p = 0.05).

To determine if there is a correlation between cultural intelligence and global citizenship among gifted and talented students, a Pearson product-moment correlation analysis was conducted, and the results are presented in Table 3.

Table 3. Pearson's correlation matrix showing the relationships between cultural intelligence and global citizenship in gifted/talented students.

Scale	N	CQ	GC	$\overline{X}$	SD	P
1. Cultural intelligence	177	-	0.593**	3.768	0.5198	0.000
2. Global citizenship	177	-	-	3.158	0.4751	

Note: **p < 0.01.

As seen in Table 3, there is a statistically significant positive correlation between cultural intelligence and global citizenship at the threshold of $p < 0.01$. Accordingly, the correlation coefficient between moral identity and altruism was determined as $r = 0.59$.

To determine the role of the cultural intelligence variable in predicting global citizenship levels for gifted/talented students, a simple regression analysis was performed, and the results are shown in Table 4.

Table 4. Regression analysis table for the relationship between cultural intelligence and global citizenship in gifted/talented students (n = 177).

Scale	B	S. error	β	T	R^2	F	P
Cultural intelligence	0.542	0.056	0.593	9.738	0.351	94.825	0.000

The results in Table 4 show that the cultural intelligence variable significantly predicts altruistic behaviors ($F = 94.825$, $p < 0.001$, $R = 0.59$, $R^2 = 0.35$). The findings of this analysis suggest that the variable explains 35% of the variance. The contribution of moral identity to the variance was found to be significant ($\beta = 0.593$, $t = 9.738$, $p < 0.001$).

4. DISCUSSION

The study aimed to determine whether there was a difference between gifted/talented students and students with normal development in terms of cultural intelligence and global citizenship levels, the possible relationship between cultural intelligence and global citizenship, and whether cultural intelligence increased the level of global citizenship. For this purpose, several hypotheses were proposed.

In the first hypothesis, the cultural intelligence levels of gifted/talented students were expected to be statistically significantly higher than those of their peers with normal development. The findings of this study demonstrated that the mean cultural intelligence scores of gifted/talented students were statistically significantly higher than those of students with normal development. Cultural intelligence is defined as a person's ability to act effectively in various social and cultural issues (Ang & Van Dyne, 2008). Clark (1983) reported that gifted/talented students have enhanced cognitive and emotional capacity to conceptualize and solve social problems. George (1992) stated that gifted/talented students have problem-solving skills and insistent and original attitudes toward problem solving. Gifted/talented students enjoy speaking about social and cultural issues, such as politics, religion, philosophy and history, by making in-depth analyses, criticisms and evaluations. They make judgments by examining the cause-effect relationships between events and phenomena (Tucker, Hafenstein, Jones, Bernick, & Haines, 1997). According to Passow (1988), gifted/talented children have a high potential to deal with social, moral and ethical issues. Volk (2008) reminds us that gifted children have a special interest in social and world problems. According to Terry et al. (2008), gifted/talented students engage in impactful activities related to social issues and lend a helping hand, which helps them develop positive social, cognitive, creative, and interactive skills. One of the most fundamental characteristics

of gifted/talented individuals is their moral sensibilities that are necessary for the welfare of the whole society (Silverman, 1994). Passow (1988) argues that gifted/talented children have greater and deeper social, moral and ethical concerns. Earley and Ang (2003) consider cultural intelligence to be an evolving and important type of intelligence adapted to contemporary intelligence concepts. George (1992) reports that gifted/talented students have high adaptation abilities. Cogan and Derricott (2000) state that one of the characteristics of twenty-first-century citizens is the ability to understand, accept, appreciate and adapt to cultural differences.

Cultural intelligence is usually a person's ability to successfully manage culturally complex situations and solve problems (Goh, 2012). According to Lovecky (1997) and Roeper (2008), gifted/talented students are better than their peers in proposing effective ways to solve problems thanks to their unique approaches. In addition, according to Clark (2002), when these students confront a problematic situation, they present functional, creative solutions by presenting original ideas, unlike their peers. Clark (1983) states that gifted students have the ability to find solutions to social and environmental problems. Silverman (1994) emphasizes the importance of understanding and nurturing the inner world of gifted people, especially that of the intrinsic relationship between abstract reasoning, coping with complexity, moral values, and the evolution of society. Both Silverman (1994) and Pohl (1995) support educational programs for gifted/talented individuals to develop these abilities (abstract reasoning, coping with complexity, and moral values) and to cope with emerging anxiety. Tannenbaum (1983) also emphasizes the importance of the value of education for gifted/talented people. He states that if a super technical scientist race without conscience and human values is created, this will have dire consequences in social and emotional terms. Clark (1983) states that gifted/talented students have high levels of skills in terms of leadership and are concerned with the higher needs of society (abstract needs), and contribution (e.g., justice, beauty, truth). Silverman (1990) and Gross (2000) emphasize that gifted/talented students' sensitivities for ethical concepts, such as justice and fairness, develop from a very young age. Gifted/talented children have different characteristics, such as reasoning, making logical relationships by looking at events or situations from a different perspective, and making scientific connections between disciplines (Renzulli et al., 2002). Through multicultural education, it can be said that students' cultural awareness levels can increase by knowing their own cultural backgrounds and cultural similarities and differences of different societies, thus helping gifted students find their way in multicultural societies and the globalizing world. In the light of the literature studied, it can be said that gifted children, unlike their peers, have certain characteristics such as being overly sensitive to social problems, being more concerned with ethical issues and issues related to the global world, and high leadership skills, and that these characteristics are used to define cultural intelligence. Therefore, the finding that the cultural intelligence levels of gifted/talented students are statistically significantly higher than their peers with normal development is expected.

The second hypothesis of the study claims that the global citizenship levels of gifted/talented students is statistically significantly higher than their peers with normal development. According to the study, the mean global citizenship score of gifted/talented students ($\overline{X} = 31.58$) is statistically significantly higher than the mean global citizenship score ($\overline{X} = 28.48$) of students with normal development ($t = 5.508$, $p < 0.005$). Globalization is a factor with a powerful influence on education that has entered educational policies and influences teaching practices and teacher training (Wang, Lin, Spalding, Odell, & Klecka, 2011). As our world becomes smaller, we face more challenges, and global awareness becomes even more critical (Von Károlyi, 2008). Global awareness, according to Gibson, Rimmington, and Landwehr-Brown (2008), is of vital importance for global citizenship, positive interaction, cooperation and communication between cultures. There are very few studies on the systematic examination of global awareness among gifted/talented people (Von Károlyi, 2008). According to Roeper (2008), the awareness, sensitivity, perception, and perspective of gifted children on global issues are different, and therefore, when they deal with global

issues and ask questions, they should be communicated carefully and honestly. Sheard (2008) states that there is an impressive parallelism between the global perception of children living outside the culture of the country in which they were born (third culture children) and the global perception of gifted children.

The study by Terry et al. (2008) entitled "Developing Sensitivity to Social Concerns in Gifted Youth" questions what they prioritize in activities that benefit the world. They emphasize the importance of equipping our gifted children with the skills they need to deal with global issues and concerns that global awareness can bring. According to Volk (2008), gifted students often show sensitivity toward complex social, environmental and global problems. This potential of gifted students for the moral responsibility and leadership of the world can be properly developed. Thus, it can be said that with their developed capacities, they will meet not only their personal needs but also the high-level needs of society.

Academicians have conducted research on the interest of gifted students on moral and ethical issues and the social problems of the world. Schmitz and Galbraith (1985) reported that gifted students are worried about world problems and are desperate to do something about them. Gifted/talented children are very sensitive and sensible, and some may feel concerned because they think too much about events beyond their control (Lovecky, 1997; Mendaglio, 2002; Silverman, 1994). Silverman (1993) and Silverman (1994) emphasize that gifted/talented students have high sensitivity to global issues and make deep decisions on moral and social problems. Cohen and Friedenberg (1993) argue that gifted/talented students experience a feeling of helplessness as a result of self-pushing because of unrealistic expectations and the thought that they are personally responsible for finding solutions to world problems. According to Volk (2008), ways should be found to alleviate the feelings of helplessness and anxieties that arise while developing the potential of gifted students. On the dangers that can be encountered if these concerns are ignored, Roeper (1988) mentions the possibility of a personal subculture that will emerge among gifted/talented people. In an analysis by Yong (1992), gifted students can shift to extreme feelings and thoughts and internalize manipulative characteristics with a sarcastic point of view about human nature.

It was reported in the findings of the comparative study conducted by Roeper (1988) on gifted and normally developing children that gifted students were more affected by world news, especially news regarding wars. In the study by Galbraith (1985) on more than 400 gifted children, their levels of sensitivity and being affected were higher than their normally developing peers regarding world problems such as famine, hunger, nuclear war, pollution and international relations. Moreover, their awareness starts at a young age. Von Károlyi (2006) conducted a comparison study of gifted students and students with normal development at primary school age and showed that gifted students became more aware of complex global problems. According to Terry et al. (2008), if we want positive leaders, the cognitive components of giftedness will need to be redefined in addition to being talented. The characteristics of a gifted/talented leader should be optimism, courage, adaptation, sensitivity to human concerns, physical and mental energy, and have a vision or understanding of destiny. Because of these characteristics, gifted children, who are future leader candidates, may be the adults who will deal with the big problems of the world that have become more localized by globalization. In line with the findings of the examined studies, the hypothesis that gifted students have a statistically significant higher global citizenship level than their normally developing peers is supported.

The third hypothesis of the study stated that the cultural intelligence and citizenship levels of gifted/talented students differ by gender. The average cultural intelligence score of gifted/talented female students ($\overline{X}$ = 39.06) is statistically significantly higher than the mean score ($\overline{X}$ = 36.16) of gifted/talented male students ($t = 3.845$, $p < 0.005$). On the other hand, there is no statistically significant difference between the mean global citizenship score of gifted/talented female students ($\overline{X}$ = 31.36) and the mean score ($\overline{X}$ = 31.84) of gifted/talented male students ($t = -0.671$, $p < 0.005$). Men and women are known to have many differences in values and interests, and these differences

are considered to explain the important factors underlying a person's behavior and achievements (Malin & Makel, 2012). It has been discussed and reported that women are not as competent as men in science, technology, engineering and mathematics (STEM) (Ceci & Williams, 2007; Ceci & Williams, 2011; Ceci, Williams, & Barnett, 2009; Gallagher & Kaufman, 2005; Watt & Eccles, 2008). The circumscription and compromise theory developed by Gottfredson (2005) defines gender as an important factor that influences career choice. The gender difference in preferences closely reflect the gender differences in professional occupations (Su, Rounds, & Armstrong, 2009). It was found in a meta-analysis by Su et al. (2009) that men (82.4%) were more interested and more prone to working with materials; while women (74.9%) were more prone to working on social relations and humanitarian issues. Based on these findings, the fact that girls are more likely to be involved in social and humanitarian problems indicates that their cultural intelligence level may be higher. In addition, the existence of gender-based professions offers an important focus in analyzing the differences in the career choices of men and women.

Educational psychologists introduced the expectation-value theory to help explain how preferences and interests are formed (Eccles, Wigfield, Harold, & Blumenfeld, 1993). The study by Diekman, Brown, Johnston, and Clark (2010) revealed that women value careers aimed at helping society. Subsequent educational research on expectation-value theory have revealed that expectations differ by gender. Males have higher expectations for achievement and abilities in masculine areas, whereas females have higher expectations for achievement and abilities in feminine fields (Jacobs, Finken, Griffin, & Wright, 1998; Marsh & Yeung, 1998; Wigfield et al., 1997). For example, boys are more interested in mathematics than girls (Farmer & Chung, 1995; Updegraff, McHale, & Crouter, 1996). Based on these results, it can be said that men and women have quite different interests.

Gender differences have also been observed in studies on the talent development of gifted youth, (Lubinski, Schmidt, & Benbow, 1996). Girls are typically more interested in human-related occupations than boys are in occupations involving materials or objects (Lubinski et al., 1996). Academically gifted/talented students are particularly intriguing because the majority of STEM professionals are gifted. For the nation's future leaders and experts in STEM and other fields, it is crucial to study students with outstanding academic ability (Ceci et al., 2009). The ability to express thoughts and emotions through writing is especially valuable in the education of gifted children whose academic skills enable them to effectively communicate their ideas (VanTassel-Baska & MacFarlane, 2008). Gifted students' problem-solving skills were evaluated by having them describe a problem in their school and design a superhero to solve it (Brewer, Krompass, & Putallaz, 2006). Writing activities were also used to evaluate their perceptions of world events (Malin & Makel, 2012). Boyd (1988) evaluated the writings of gifted girls born in 1944 and 1957 about the future. According to Boyd, gifted girls' self-perceptions and career choices were affected by the world events that shaped their childhoods. Therefore, an individual's writings can be a useful format for assessing interests and preferences. A study conducted by Malin and Makel (2012) found that girls and boys tend to perceive slightly different issues as problems. For example, issues such as terrorism and security are considered to be the most important matters by boys, while girls considered animal neglect, endangered species, or environmental problems as serious. These differences in approach to problems may be attributed to gender roles. The expectation-value theory argues that such differences can be attributed to the difference in values of men and women.

Malin and Makel (2012) also found significant differences in the language used by gifted/talented students in describing how they would help a nation or the world in their proposed solutions to problems. For example, when asked about the status of the state, boys preferred expressions of improvement, e.g., "It continues to threaten not only our survival but also our leadership in the world") and girls preferred expressions of development, such as "If something is done now, the world will be a better place". In other words, although girls and boys have small social and global value differences, both genders have an interest in and sensitivity to social issues and global problems. It

can be further said that boys emphasized the past power of the state and global superiority, and girls emphasized the need for change and progress. The results of these studies support the finding of the present study that there is no statistically significant difference between the mean global citizenship scores of gifted/talented female students and gifted/talented male students. According to the fourth hypothesis of the study, there is a statistically significant correlation between the cultural intelligence and global citizenship levels of gifted and talented students. There is a statistically significant positive correlation between cultural intelligence and global citizenship at the $p < 0.01$ threshold. Accordingly, the correlation coefficient between cultural intelligence and global citizenship was determined as $r = 0.59$. Cultural intelligence is the optimal framework for fostering intercultural competence in character and citizenship education (Goh, 2012). Many researchers have reported that the development of global awareness is also very important for gifted/talented students (Roeper, 2008; Sheard, 2008; Sisk, 2008; Tallent-Runnels, 2007; Terry et al., 2008; Volk, 2007; Volk, 2008). Researchers have stated that gifted people have a high level of sensitivity to world problems and feel responsible for finding a solution (Tallent-Runnels & Yarbrough, 1992). Silverman (2007) states that gifted/talented students have a high level of perception of problems, moral issues, and cognitive awareness of the dangers in the world due to their inner depth, developmental difference, and perfectionism. According to Goh (2012), a student's own cultural identity may include family, neighborhood, community, school, or worship traditions, but the development of cultural intelligence helps students to develop their cultural and national identity positively in the global context. According to Terry and Bohnenberger (2003), gifted and talented youth have the opportunity to increase their social awareness, implement positive action skills, and realize their vision of a better future. According to Terry et al. (2008), gifted youth have the opportunity to increase their global awareness, put their positive action skills into practice, and develop a vision for a better future. It is now possible to argue that the world will become even more socially and economically interconnected and interdependent.

The increasing focus on globalization has drawn the attention of educators around the world (Goh, 2012). Teachers can facilitate cognitive, creative, problem-solving processes, well-organized and collaborative learning groups, reflection, and creative development for gifted students (Terry & Bohnenberger, 2003). There are at least two arguments to be taken into account for raising gifted/talented students as globally-equipped individuals. The first is globalization, and the second is culture and citizenship education (Goh, 2012). Passow (1989) states that young people strive to develop their own talents to contribute to the solutions to serious problems faced by their societies and the world. There is an interdisciplinary interaction between science and intercultural competence practices, among other disciplines, and the field of global citizenship education.

Globalization and the increasingly multicultural characteristic of many countries and societies have developed well-educated and globally intelligent citizens (Goh, 2012). Therefore, it is an acceptable assumption that a statistically significant relationship exists between gifted/talented students' cultural intelligence and global citizenship levels. The fifth hypothesis of the study states that the cultural intelligence levels of gifted/talented students statistically significantly predicted their global citizenship levels. In the regression analysis conducted to determine the role of the cultural intelligence variable in the prediction of the global citizenship level, it was seen that the cultural intelligence variable significantly predicted altruistic behaviors. According to Renzulli et al. (2002), although it is emphasized that high-level success is important when it comes to giftedness and creative productivity, the projection of individuals with the desired giftedness qualities is to make the environment safe, peaceful, and politically free, which will affect the whole of humanity. Understanding how these positive human traits develop is especially important because it will allow us to guide talented youth toward educational and environmental experiences that will shape their future values and actions. Terry et al. (2008), on the other hand, believe that gifted youth should be taught to use their intellectual, motivational, and creative assets to positively impact the global

community. Tannenbaum (1983) emphasizes that gifted/talented children, regardless of their specific talents, should focus on the emotional (cognitive) domain. In particular, they should be alert to human value judgments and develop personal codes of conduct for the responsibilities and values that others should assume. One of the challenges faced by gifted students, according to VanTassel-Baska (1989), is the opportunity to apply their talents to real problems in the production world, which could include finding solutions to global and social problems. Terry et al. (2008) stress the significance of sensitizing gifted and talented youth to global issues and empowering them to use their gifts and talents in a socially constructive manner.

With a keen sense of justice, gifted people are concerned about the injustices in the world and suffer deeply in the face of a helpless and powerless situation or person. They are sensitive to peace, violence, and all the problems they face around them (Roeper, 1988). Volk (2008) emphasizes the necessity of developing strategies and action plans for gifted students to handle global problems in the world in a structured and meticulous manner and to use their capacity to take responsibility properly. Terry et al. (2008) argue that creative problem solving is essential in enhancing the perception of gifted students because they use it to address problems that are not found in theoretical textbooks but can be encountered in the real world. Teaching students to use their creativity to deal with social problems prepares them to be good citizens for today and tomorrow's world. Thus, students develop complex problem solving and communication skills, as well as the ability to persevere, strive, and cope with and overcome interdisciplinary knowledge and challenges (Terry & Bohnenberger, 2004). It also provides strong emotional cognitive components and includes gifted students who are sensitive to social and even global needs in interdisciplinary work (Terry & Bohnenberger, 2007). Passow (1988) emphasizes the potential leadership skills of talented people and stresses that many countries prepare gifted/talented individuals to become leaders of tomorrow, but gifted/talented children must be raised as individuals who develop and use their talents for the benefit of the global world and are compassionate, caring, and merciful in terms of self-realization.

The role of global citizenship on the cultural intelligence variable can be seen more clearly in the twenty-first century. Cogan and Derricott (2000) identify the characteristics of the twenty-first century individual as the ability to look at and approach problems as a member of the global community; the ability to work collaboratively with others; to take responsibility for their roles and responsibilities in society; the ability to understand, accept, appreciate, and tolerate cultural differences; critical and systematic thinking ability, i.e. the ability to think critically; and the ability to resolve conflicts. In light of these findings, it is possible that the cultural intelligence levels of gifted and talented students are a significant predictor of their global citizenship levels.

4.1. Suggestions for Further Research

Future research should be conducted on the development of global awareness from both a human development perspective and a talent development perspective. How to develop global awareness and how such awareness develops in intellectually gifted children can also be studied. How gifted/talented children who have developed an awareness of global issues are affected should be investigated, and ways should be sought to ensure that therapists strive to discover best practices in dealing with existential crises at home and in the classroom. Intercultural studies are also needed in this area. Training programs can be prepared to develop cultural intelligence and increase global citizenship awareness. Such programs can be applied to students who will be multicultural, educated, and citizens with worldwide participation, and the subsequent results can be evaluated. Furthermore, future research could also investigate whether global awareness also differs in individualist societies and societies with a collectivist characteristic.

Additionally, future research should have a deeper focus on investigating when gender differences arise as well as the mechanisms that drive them.

REFERENCES

Adler, N. J., & Gundersen, A. (2008). *International dimensions of organizational behavior 5E.* South-Western: A Part of Cengage Learning.

Ahmadi, Y., Shahmohamadi, A., & Araghi, M. M. (2011). The study of effect of socio-cultural factor on cultural intelligence case study: Sanandaj city. *International Journal of Humanities and Social Science, 1*(12), 161-168.

Ang, S., & Van Dyne, L. (2008). *Handbook on cultural intelligence: Theory measurement and applications.* Armonk, New York: M.E. Sharpe.

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review, 3*(3), 335-371. https://doi.org/10.1111/j.1740-8784.2007.00082.x

Arneil, B. (2007). Global citizenship and empire. *Citizenship Studies, 11*(3), 301-328. https://doi.org/10.1080/13621020701381840

Bain, S. K., & Bell, S. M. (2004). Social self-concept, social attributions, and peer relationships in fourth, fifth, and sixth graders who are gifted compared to high achievers. *Gifted Child Quarterly, 48*(3), 167-178. https://doi.org/10.1177/001698620404800302

Boyd, R. (1988). Environmental influence on the writing of gifted high school girls. *Adolescence, 23*(89), 19-28. https://doi.org/10.1080/15332276.2015.1137450

Brewer, P. K., Krompass, L., & Putallaz, M. (2006). *Gifted children's essays on problems in their schools.* Paper presented at the The Annual Meeting of the National Association of Gifted Children Charlotte NC.

Brislin, R., Worthley, R., & Macnab, B. (2006). Cultural Intelligence: Understanding behaviors that serve people's goals. *Group & Organization Management, 31*(1), 40-55. https://doi.org/10.1177/1059601105275262

Buyukozturk, S., Kilic-Cakmak, E., Akgun, O., Karadeniz, S., & Demirel, F. (2015). *Scientific research methods.* Ankara: Pegem A Publishing.

Cabrera, L. (2008). Global citizenship as the completion of cosmopolitanism. *Journal of International Political Theory, 4*(1), 84-104. https://doi.org/10.3366/E1755088208000104

Carr, P. R., Pluim, G., & Howard, L. (2014). Linking global citizenship education and education for democracy through social justice: What can we learn from the perspectives of teacher-education candidates. *Journal of Global Citizenship & Equity Education, 4*(1), 65.

Ceci, S. J., & Williams, W. M. (2007). *Why aren't more women in science? Top researchers debate the evidence.* Washington DC: American Psychological Association.

Ceci, S. J., & Williams, W. M. (2011). Understanding current causes of women's underrepresentation in science. *Proceedings of the National Academy of Sciences, 108*(8), 3157-3162. https://doi.org/10.1073/pnas.1014871108

Ceci, S. J., Williams, W. M., & Barnett, S. M. (2009). Women's underrepresentation in science: Sociocultural and biological considerations. *Psychological Bulletin, 135*(2), 218-261. https://doi.org/10.1037/a0014412

Cesario, S. K. (2016). Sustainable development goals for monitoring action to improve global health. *Nursing for Women's Health, 20*(4), 427-431. https://doi.org/10.1016/j.nwh.2016.06.001

Chen, X.-P., Liu, D., & Portnoy, R. (2012). A multilevel investigation of motivational cultural intelligence, organizational diversity climate, and cultural sales: Evidence from U.S. real estate firms. *Journal of Applied Psychology, 97*(1), 93–106. https://doi.org/10.1037/a0024697

Clark, B. (1983). *Growing up gifted* (2nd ed.). Columbus: Charles E. Merrill.

Clark, B. (2002). *Growing up gifted: Developing the potential of children at home and at school* (6th ed.). Upper Saddle River, New Jersey: Prentice Hall.

Cogan, J. J., & Derricott, R. (2000). *Citizenship for the 21st century: An international perspective on education.* London: Kogan Page.

Cohen, L., & Friedenberg, E. (1993). *Coping for capable kids melbourne*. Australia: Hawker Brownlow.

Dąbrowski, K. (1972). *Psychoneurosis is not an illness: Neuroses and psychoneuroses from the perspective of positive disintegration*. London: Gryf Publications.

Diekman, A. B., Brown, E. R., Johnston, A. M., & Clark, E. K. (2010). Seeking congruity between goals and roles: A new look at why women opt out of science technology engineering and mathematics careers. *Psychological Science, 21*(8), 1051-1057. https://doi.org/10.1177/0956797610377342

Dower, N. (2022). *An introduction to global citizenship in an introduction to global citizenship*: Edinburgh University Press.

Dupont, A., & Reckmeyer, W. J. (2012). Australia's national security priorities: Addressing strategic risk in a globalised world. *Australian Journal of International Affairs, 66*(1), 34-51. https://doi.org/10.1080/10357718.2011.637316

Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Palo Alto Calif: Stanford University Press.

Earley, P. C., & Mosakowski, E. (2004). Cultural intelligence. *Harvard Business Review, 82*(10), 139-146.

Eccles, J., Wigfield, A., Harold, R. D., & Blumenfeld, P. (1993). Age and gender differences in children's self-and task perceptions during elementary school. *Child Development, 64*(3), 830-847. https://doi.org/10.2307/1131221

Farhadi, M., Ardabili, F. S., & Daryani, S. M. (2013). Study of the relationship of culture intelligence on citizenship behavior of the bank branches directors case study: The private banks of Ardabil. *Journal of Novel Applied Sciences, 2*(S3), 1036-1040.

Farmer, H. S., & Chung, Y. B. (1995). Variables related to career commitment, mastery motivation, and level of career aspiration among college students. *Journal of Career Development, 21*(4), 265-278. https://doi.org/10.1007/BF02106151

Field, T., & Harding, J. (1998). Feelings and attitudes of gifted students. *Adolescence, 33*(130), 331-342.

Galbraith, J. (1985). The eight great gripes of gifted kids: Responding to special needs. *Roeper Review, 8*(1), 15-18. https://doi.org/10.1080/02783198509552920

Gallagher, A. M., & Kaufman, J. C. (2005). Gender differences in mathematics: What we know and what we need to know. In A. M. Gallagher & J. C. Kaufman (Eds.), Gender differences in mathematics: An integrative psychological approach. In (pp. 316–331): Cambridge University Press.

George, D. (1992). Gifted education in England. *Roeper Review, 14*(4), 201-204. https://doi.org/10.1080/02783199209553429

Gibson, K. L., Rimmington, G. M., & Landwehr-Brown, M. (2008). Developing global awareness and responsible world citizenship with global learning. *Roeper Review, 30*(1), 11-23. https://doi.org/10.1080/02783190701836270

Giddens, A. (2006). Fate risk and security in the sociology of risk and gambling reader. In (pp. 37-67). New York: Routledge.

Goh, M. (2012). Teaching with cultural intelligence: Developing multiculturally educated and globally engaged citizens. *Asia Pacific Journal of Education, 32*(4), 395-415. https://doi.org/10.1080/02188791.2012.738679

Golmohamad, M. (2008). Global citizenship: From theory to practice unlocking hearts and minds. In (pp. 519-533): Brill.

Gottfredson, L. S. (2005). Applying gottfredson's theory of circumscription and compromise in career guidance and counseling in S. D. Brown & R. W. Lent (Eds.), Career development and counseling: Putting theory and research to work. In (pp. 71-100). New York: John Wiley.

Green, D. (2012). *From poverty to power: How active citizens and effective states can change the world*. Oxfam: Oxfam International.

Gross, M. U. (2000). Exceptionally and profoundly gifted students: An underserved population. *Understanding Our Gifted, 12*(2), 3-9.

Guo, L. (2014). Preparing teachers to educate for 21st century global citizenship: Envisioning and enacting. *Journal of Global Citizenship & Equity Education, 4*(1), 1-23.

Harris, M. M. (2006). Cultural skill: An emerging construct for the 21st century. *The Industrial-Organizational Psychologist, 43*(3), 43-47. https://doi.org/10.1037/e579142011-007

Hofstede, G. (2011). Dimensionalizing cultures: The hofstede model in context. *Online Readings in Psychology and Culture, 2*(1), 2307-2319. https://doi.org/10.9707/2307-0919.1014

Israel, R., Miller, V., Reed, S., Brown, E., & Gibbons, P. (2011). Global citizenship education. *Ethnicity and Race: Creating Educational Opportunities Around the Globe*, 309-321.

Jacobs, J. E., Finken, L. L., Griffin, N. L., & Wright, J. D. (1998). The career plans of science-talented rural adolescent girls. *American Educational Research Journal, 35*(4), 681-704. https://doi.org/10.3102/00028312035004681

Jones, S.-A. (2016). Global citizenship. *Australian Nursing and Midwifery Journal, 23*(10), 1-48.

Katzarska-Miller, I., & Reysen, S. (2019). Educating for global citizenship: Lessons from psychology. *Childhood Education, 95*(6), 24-33. https://doi.org/10.1080/00094056.2019.1689055

Kiznyte, J., Ciutiene, R., & Dechange, A. (2015). Applying cultural intelligence in international project management. *PM World Journal, 4*(6), 1-16.

Kymlicka, W., & Norman, W. (2000). Citizenship in culturally diverse societies: Issues, contexts, concepts. *Citizenship in Diverse Societies, 1*, 1-42. https://doi.org/10.1093/019829770x.003.0001

Lagos, T. G. (2001). *Global citizenship-towards a definition.* Retrieved from http://depts.washington.edu/gcp/pdf/globalcitizenship.pdf

Larsen, M. A. (2014). Critical global citizenship and international service learning. *Journal of Global Citizenship & Equity Education, 4*(1), 1-23.

Lee, L.-Y., & Sukoco, B. M. (2010). The effects of cultural intelligence on expatriate performance: The moderating effects of international experience. *The International Journal of Human Resource Management, 21*(7), 963-981. https://doi.org/10.1080/09585191003783397

Lee, R. B., Baring, R., Maria, M. S., & Reysen, S. (2017). Attitude towards technology, social media usage and grade-point average as predictors of global citizenship identification in filipino university students. *International Journal of Psychology, 52*(3), 213-219. https://doi.org/10.1002/ijop.12200

Livermore, D. (2011). *The cultural intelligence difference special ebook edition: Master the one skill you can't do without in today's global economy*: AMACOM Div American Mgmt Assn.

Livermore, D., & Dyne, L. V. (2015). *Cultural intelligence: The essential intelligence for the 21st century*. USA: SHRM Foundation's Effective Practice Guidelines Series.

Lovecky, D. V. (1997). Identity development in gifted children: Moral sensitivity. *Roeper Review, 20*(2), 90-94. https://doi.org/10.1080/02783199709553862

Lubinski, D., Schmidt, D. B., & Benbow, C. P. (1996). A 20-year stability analysis of the study of values for intellectually gifted individuals from adolescence to adulthood. *Journal of Applied Psychology, 81*(4), 443-451. https://doi.org/10.1037/0021-9010.81.4.443

Maldonado, T., & Vera, D. (2014). Leadership skills for international crises: The role of cultural intelligence and improvisation. *Organizational Dynamics, 4*(43), 257-265. https://doi.org/10.1016/j.orgdyn.2014.09.002

Malek, M. A. (2011). *Effect of support and cultural intelligence on the adjustment and performance of expatriates and their family members in Malaysia*. Doctoral Dissertation, Aston University.

Malin, J., & Makel, M. C. (2012). Gender differences in gifted students' advice on solving the world's problems. *Journal for the Education of the Gifted, 35*(2), 175-187. https://doi.org/10.1177/0162353212440617

Marsh, H. W., & Yeung, A. S. (1998). Longitudinal structural equation models of academic self-concept and achievement: gender differences in the development of math and english constructs. *American Educational Research Journal, 35*(4), 705-738. https://doi.org/10.3102/00028312035004705

Marshall, H. (2005). Developing the global gaze in citizenship education: Exploring the perspectives of global education NGO workers in England. *International Journal of Citizenship and Teacher Education, 1*(2), 76-92.

McRae, N. (2012). *Enhancing cultural intelligence through international work integrated learning.* Paper presented at the 2012 Australian Collaborative Education Network National Conference.

Mendaglio, S. (2002). Heightened multifaceted sensitivity of gifted students: Implications for counseling. *Journal of Secondary Gifted Education, 14*(2), 72-82. https://doi.org/10.4219/jsge-2003-421

Mercan, N. (2016a). The art of managing intercultural differences in multicultural settings: Cultural intelligence. *Journal of Open Education Practices and Research, 2*(2), 32-49.

Mohr, J. W. (2005). Cultural intelligence. *Journal of Sociology, 56*(1), 13-30.

Neihart, M. (1999). The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Review, 22*(1), 10-17. https://doi.org/10.1080/02783199909553991

Ng, K.-Y., Van Dyne, L., & Ang, S. (2012). Cultural intelligence: A review, reflections, and recommendations for future research. *Conducting Multinational Research: Applying Organizational Psychology in the Workplace*, 29-58. https://doi.org/10.1037/13743-002

Nunes, I. M., Felix, B., & Prates, L. A. (2017). Cultural intelligence, cross-cultural adaptation and expatriate performance: A study with expatriates living in Brazil. *Management Magazine, 52*(3), 219-232. https://doi.org/10.1016/j.rausp.2017.05.010

Nussbaum, M. (1996). *Patriotism and cosmopolitanism in for love of country: Debating the limits of patriotism, edited by: Cohen, J.* Boston: Beacon Press.

Oxfam. (2006). *Education for global citizenship: A guide for schools.* Oxford: Oxfam GB.

Ozbey, A., & Saricam, H. (2016). Educational process. *International Journal Kutahya, 5*(2), 116-127. https://doi.org/10.12973/edupij.2016.52.3

Özel, S. (2007). *Citizenship in the era of globalization.* Retrieved from http://www.anayasa.gov.tr/files/pdf/anayasa_yargisi/soli_ozel.pdf

Passow, A. H. (1988). Educating gifted persons who are caring and concerned. *Roeper Review, 11*(1), 13-15. https://doi.org/10.1080/02783198809553152

Passow, A. H. (1989). Needed research and development in educating high ability children an editorial. *Roeper Review, 11*(4), 223-229. https://doi.org/10.1080/02783198909553217

Pauketat, J. V. T., & Mackie, D. M. (2016). *The psychology of global citizenship: Implications for intergroup trust.* Retrieved from https://osf.io/u8zgm/adresinden

Pohl, M. (1995). Global concerns of the gifted. *Australasian Journal of Gifted Education, 4*(2), 5-11. https://search.informit.org/doi/10.3316/aeipt.74761

Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches.* London: Sage.

Quiles, L. M. (2016). *Globally aware and gifted: A qualitative content-analysis of the global awareness network of the national association for gifted children between 2001 and 2010.* Doctoral Dissertation University of Lowa.

Ramirez, F. (2006). *From citizen to person? Rethinking education as incorporation in A. Wiseman & D. Baker (Eds.), The impact of comparative educational research on neoinstitutional theory.* Oxford: Elsevier Science.

Reade, C., Reckmeyer, W. J., Cabot, M., Jaehne, D., & Novak, M. (2013). Educating global citizens for the 21st century: The SJSU salzburg program. *Journal of Corporate Citizenship*(49), 100-116. https://doi.org/10.9774/gleaf.4700.2013.ma.00008

Renzulli, J. S., Smith, L. H., White, A. J., Callahan, C. M., Hartman, R. K., & Westberg, K. L. (2002). *Scales for rating the behavior characteristics of superior students: Revised edition.* Mansfield Center, CT: Creative Learning Press.

Reysen, S., & Katzarska-Miller, I. (2013). A model of global citizenship: Antecedents and outcomes. *International Journal of Psychology, 48*(5), 858–870. https://doi.org/10.1080/00207594.2012.701749

Roeper, A. (1988). Should educators of the gifted and talented be more concerned with world issues? *Roeper Review, 11*(1), 12-13. https://doi.org/10.1080/02783198809553151

Roeper, A. (2008). Global awareness and gifted children: Its joy and history. *Roeper Review, 30*(1), 8-10. https://doi.org/10.1080/02783190701836254

Schmitz, C. C., & Galbraith, J. (1985). *Managing the social and emotional needs of the gifted: A teacher's survival guide*. Minneapolis, MN: Free Spirit.

Sheard, W. (2008). Lessons from our kissing cousins: Third culture kids and gifted children. *Roeper Review, 30*(1), 31-38. https://doi.org/10.1080/02783190701836437

Silverman, L. K. (1990). Issues in affective development of the gifted,a A practical guide to counseling the gifted in a school setting. In (2nd ed., pp. 23-34). Virginia: Clearinghous on Handicapped and Gifted Children.

Silverman, L. K. (1993). Social development leadership and gender issues in L. K. Silverman (Ed.), Counseling the gified and talented. In (pp. 291-327). Denver CO: Love.

Silverman, L. K. (1994). The moral sensitivity of gifted children and the evolution of society. *Roeper Review, 17*(2), 110-116. https://doi.org/10.1080/02783199409553636

Silverman, L. K. (2007). Perfectionism: The crucible of giftedness. *Gifted Education International, 23*(3), 233-245. https://doi.org/10.1177/026142940702300304

Sisk, D. (2008). Engaging the spiritual intelligence of gifted students to build global awareness in the classroom. *Roeper Review, 30*(1), 24-30. https://doi.org/10.1080/02783190701836296

Sternberg, R. J. (2000). *Handbook of intelligence*. New York: Cambridge University Press.

Stromquist, N. P. (2009). Theorizing global citizenship: Discourses, challenges, and implications for education. *Inter-American Journal of Education for Democracy, 2*(1), 5-31.

Su, R., Rounds, J., & Armstrong, P. I. (2009). Men and things women and people: A meta-analysis of sex differences in interests. *Psychological Bulletin, 135*(6), 859-884. https://doi.org/10.1037/a0017364

Tallent-Runnels, M. K. (2007). Resources for gifted students studying future. *Gifted Child Today, 30*(1), 50-54. https://doi.org/10.4219/gct-2007-22

Tallent-Runnels, M. K., & Yarbrough, D. W. (1992). Effects of the future problem solving program on children's concerns about the future. *Gifted Child Quarterly, 36*(4), 190-194. https://doi.org/10.1177/001698629203600404

Tannenbaum, A. J. (1983). *Gifted children: Psychological and educational perspectives*. New York: Macmillan Publishing Company.

Terry, A., & Bohnenberger, J. (2007). Service-learning... by degrees: How adolescents can make a difference in the real world.

Terry, A. W., & Bohnenberger, J. E. (2003). Service learning: Fostering a cycle of caring in our gifted youth. *Journal of Secondary Gifted Education, 15*(1), 23-32. https://doi.org/10.4219/jsge-2003-437

Terry, A. W., & Bohnenberger, J. E. (2004). Blueprint for incorporating service learning: A basic developmental k-12 service learning typology. *Journal of Experiential Education, 27*(1), 15-31. https://doi.org/10.1177/105382590402700103

Terry, A. W., Bohnenberger, J. E., Renzulli, J. S., Cramond, B., & Sisk, D. (2008). Vision with action: Developing sensitivity to societal concerns in gifted youth. *Roeper Review, 30*(1), 61-67. https://doi.org/10.1080/02783190701836478

Trede, F., Bowles, W., & Bridges, D. (2013). Developing intercultural competence and global citizenship through international experiences: Academics' perceptions. *Intercultural Education, 24*(5), 442-455. https://doi.org/10.1080/14675986.2013.825578

Triandis, H. C. (2006). Cultural intelligence in organizations. *Group & Organization Management, 31*(1), 20-26. https://doi.org/10.1177/1059601105275253

Triandis, H. C. (2008). Towards the realistic perception of a culture. *Social and Personality Psychology Compass, 2*(5), 1812-1823. https://doi.org/10.1111/j.1751-9004.2008.00149.x

Tsai, M.-Y. (2015). Construction and factorial validation of the Chinese version of the self-compassion scale for gifted students. *Psychology Research, 5*(11), 634-644. https://doi.org/10.17265/2159-5542/2015.11.003

Tucker, B., Hafenstein, N. L., Jones, S., Bernick, R., & Haines, K. (1997). An integrated-thematic curriculum for gifted learners. *Roeper Review, 19*(4), 196-199. https://doi.org/10.1080/02783199709553828

UNESCO. (2014). *Global citizenship education: Preparing learners for the challenges of the 21st century*. Paris: UNESCO.

Updegraff, K. A., McHale, S. M., & Crouter, A. C. (1996). Gender roles in marriage: What do they mean for girls' and boys' school achievement? *Journal of Youth and Adolescence, 25*(1), 73-88. https://doi.org/10.1007/BF01537381

Van Dyne, L., Ang, S., & Livermore, D. (2010). Cultural intelligence: A pathway for leading in a rapidly globalizing world. *Leading Across Differences, 4*(2), 131-138.

Van Dyne, L., Ang, S., Ng, K. Y., Rockstuhl, T., Tan, M. L., & Koh, C. (2012). Sub-dimensions of the four factor model of cultural intelligence: Expanding the conceptualization and measurement of cultural intelligence. *Social and personality psychology compass, 6*(4), 295-313. https://doi.org/10.1111/j.1751-9004.2012.00429.x

VanTassel-Baska, J., & MacFarlane, B. (2008). Writing. In J. A. Plucker & C. M. Callahan (Eds), Critical issues and practices in gifted education. In (pp. 749-760). Waco: TX: Prufrock.

Volk, V. (2007). Citizens of the future world: International outreach in the future problem solving program. *Creative Learning Today, 15*(2), 4-10.

Volk, V. (2008). A global village is a small world. *Roeper Review, 30*(1), 39-44. https://doi.org/10.1080/02783190701836445

Von Károlyi, C. (2006). Issue awareness in young highly gifted children: Do the claims hold up? *Roeper Review, 28*(3), 167-174. https://www.tandfonline.com/doi/abs/10.1080/02783190609554356

Von Károlyi, C. (2008). Introduction to special issue on global awareness and giftedness. *Roeper Review, 30*(1), 6-7. https://doi.org/10.1080/02783190701836247

Wang, J., Lin, E., Spalding, E., Odell, S. J., & Klecka, C. L. (2011). Understanding teacher education in an era of globalization. *Journal of Teacher Education, 62*(2), 115-120. https://doi.org/10.1177/0022487110394334

Ward, C., Wilson, J., & Fischer, R. (2011). Assessing the predictive validity of cultural intelligence over time. *Personality and Individual Differences, 51*(2), 138-142. https://doi.org/10.1016/j.paid.2011.03.032

Watt, H. M., & Eccles, J. S. (2008). *Gender and occupational outcomes: Longitudinal assessments of individual, social, and cultural influences*: American Psychological Association.

Wigfield, A., Eccles, J. S., Yoon, K. S., Harold, R. D., Arbreton, A. J., Freedman-Doan, C., & Blumenfeld, P. C. (1997). Change in children's competence beliefs and subjective task values across the elementary school years: A 3-year study. *Journal of Educational Psychology, 89*(3), 451-469. https://doi.org/10.1037/0022-0663.89.3.451

Wintersteiner, W., Grobbauer, H., Diendorfer, G., & Reitmair-Juárez, S. (2015). *Global citizenship education citizenship education for globalizing societies*. Salz-Burg Vienna: Cooperation with the Austrian Commission for UNESCO Klagenfurt.

Wu, P.-C., & Ang, S. H. (2011). The impact of expatriate supporting practices and cultural intelligence on cross-cultural adjustment and performance of expatriates in Singapore. *The International Journal of Human Resource Management, 22*(13), 2683-2702. https://doi.org/10.1080/09585192.2011.599956

Yong, F. L. (1992). Mathematics and science attitudes of African-American middle grade students identified as gifted: Gender and grade differences. *Roeper Review, 14*(3), 136-140. https://doi.org/10.1080/02783199209553408