Research Article

Author for correspondence:
Dilan Bayram
✉ dilan.bayram@marmara.edu.tr
✉ Department of English Language Teaching, Marmara University, Türkiye
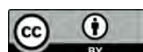
Cultural Intelligence and Attitudes Towards Multicultural Education: Mediating Role of Intercultural Sensitivity

Munevver Basman[ID] **, Dilan Bayram**[ID]

Abstract

Background/purpose. The study investigated the role of intercultural sensitivity as a mediator variable between cultural intelligence and attitudes towards multicultural education.

Materials/methods. The design of the research was a predictive correlational study. A total of 287 preservice teachers (PSTs) from different departments at a state university participated in the study. Data were collected by means of a personal information form, the Cultural Intelligence scale, the Intercultural Sensitivity scale, and Attitudes Towards Multicultural Education scale. The theoretical model, created to reveal the mediating role of intercultural sensitivity in the relationship between cultural intelligence and the variable of attitude towards multicultural education, was tested with the help of path analysis.

Results. Findings showed that while cultural intelligence significantly predicted attitudes towards multicultural education, when intercultural sensitivity was included in the model as a mediator variable, cultural intelligence did not significantly predict attitudes towards multicultural education.

Conclusion. These results showed that the association between cultural intelligence and attitude towards multicultural education was fully mediated by intercultural sensitivity. This result highlights the importance of intercultural sensitivity in developing positive attitudes towards multicultural education.

ÜNİVERSİTEPARK®

1. Introduction

In the 21st century, the world has become more interconnected by means of rapid flows of various components such as capital, people, goods, images, and ideologies. This interconnectedness has brought about the existence of more complex and diverse societal structures. These diverse societal structures have already been present in Turkey for some time, since it is a country consisting of people with different backgrounds, ethnicity, religion, and language. In addition, Turkey has been the host country in recent years to huge numbers of refugees and immigrants from war-torn countries such as Syria, Iraq, Iran, and Afghanistan as a significant transitory point. In order to make sense of and function well in such a diverse world, individuals require an expanded set of skills and competencies that include a positive attitude towards multiculturalism, and a high level of cultural intelligence and intercultural sensitivity.

Educational settings are vital in order for individuals to be equipped with these skills and competencies, which underlines the important role that teachers play in this process. In order to provide multicultural education and deal with the ever-changing demographics of today's schools, it is essential that teachers first possess these skills and competencies (Ambe, 2006; Trilling & Fadel, 2009). To that end, this call necessitates that preservice teachers (PSTs) acquire the knowledge, skills, and attitudes towards multicultural education prior to starting their professional service in order to appropriately handle the cultural diversity of modern-day schools (Ambe, 2006; Jenks et al., 2001; Smith, 2009). Thus, related concepts such as cultural intelligence, attitudes towards multicultural education, and intercultural sensitivity have given impetus to scientific research and the relationships among these variables emphasized in recent literature. However, only a limited number of studies have focused on these three variables together, rather than individually. In order to address this gap in the literature, the current study examined the mediator role of intercultural sensitivity of PSTs between cultural intelligence and attitude towards multicultural education.

2. Literature Review

Cultural intelligence, which is represented across different fields such as psychology, sociology, anthropology, and education, can be defined as "a person's capacity to adapt effectively to new cultural contexts" and thus appears to be a form of situated intelligence with adaptive behaviors (Earley & Ang, 2003). In the literature, teachers' high cultural intelligence level has been shown to have a positive impact upon student achievement (Dahdah, 2017) and their professional well-being (Efeoğlu & Ulum, 2017). Cultural intelligence has also been considered from other concepts such as attitude, which was defined by Allport (1935) as "a mental and neural state of readiness, organized through experience, exerting a directive and dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 810).

Studies in the literature that have investigated the relationship between cultural intelligence and attitudes towards multicultural education have mostly indicated a positive relationship. Working with PSTs, Koçak and Özdemir (2015) examined this relationship and revealed that a significant, moderate, and positive relationship exists between attitudes towards multicultural education and cultural intelligence. Additionally, they revealed that significant, moderate, and positive relationships exist between attitudes towards multicultural education and three dimensions of cultural intelligence (metacognitive, motivation, and behavioral), as well as a significant, positive, but weak relationship between attitudes towards multicultural education and the cognitive dimension of cultural intelligence. They also revealed that the metacognitive, motivation, and behavioral dimensions of cultural intelligence were significant predictors of attitudes towards multicultural education. Similarly, Gezer and Şahin (2017) concluded that (i) significant, moderate, and positive relations exist between attitude towards multicultural education and the metacognitive, motivation, and behavioral dimensions of cultural intelligence, (ii) significant, weak, and positive relations exist between

attitudes towards multicultural education and the cognitive dimension of cultural intelligence, (iii) direct predictive roles exist for the metacognitive, motivation, and behavioral dimensions of cultural intelligence for attitudes towards multicultural education and, (iv) there exists an indirect predictive role of the cognitive dimension of cultural intelligence through the behavioral dimension for attitudes towards multicultural education. In the same year, Yaşar Ekici (2017) revealed a different result: Although significant, positive, but weak relationships between attitudes towards multicultural education and both overall cultural intelligence scores and three dimensions of cultural intelligence (metacognitive, motivation, and behavioral) were detected, there was no significant relationship found between the cognitive dimension of cultural intelligence and attitudes towards multicultural education. Similarly, Özer Koçak (2020) focused on social studies PSTs and concluded that a significant, positive, but weak relationship exists between attitudes towards multicultural education and cultural intelligence levels

The concept of cultural intelligence has also been investigated together with intercultural sensitivity. Intercultural sensitivity was conceptualized by Chen and Starosta (1997) as a person's "ability to develop a positive emotion towards understanding and appreciating cultural differences that promotes appropriate and effective behavior in intercultural communication" (p. 5). Since the concept has also been defined as the ability to "discriminate and experience relevant cultural differences" (Hammer et al., 2003, p. 422), its cognitive and attitudinal nature becomes apparent (Altshuler et al., 2003). Deardorff (2004) listed three requisite attitudes for the development of intercultural sensitivity: "1) respect — valuing other cultures, cultural diversity, 2) openness — to intercultural learning and to people from other cultures, withholding judgment, and 3) curiosity and discovery — tolerating ambiguity and uncertainty" (p. 196). Although some studies have investigated the relationship between cultural intelligence and intercultural sensitivity in different disciplines, e.g., health (Aslan & Kizir, 2019) and business administration (Mercan, 2016; Özdemir, 2019), only a few studies have been conducted in the field of education. Working with university students, Abasli and Polat (2019) revealed a significant, moderate, and positive relationship exists between these variables and that intercultural sensitivity was a significant predictor of cultural intelligence. Similarly, Suna's (2024) study, which focused on primary school teachers, concluded that a significant, moderate, and positive relationship exists between cultural intelligence and intercultural sensitivity levels.

Intercultural sensitivity is also a concept which has been addressed with reference to its relations with attitudes towards multicultural education. For example, Onur Sezer and Bağçeli Kahraman (2017) collected data from PSTs and revealed that a significant and moderate relationship exists between attitudes towards multicultural education and intercultural sensitivity scores. Similarly, Kim and Connelly (2019) revealed that a significant, moderate, and positive relationship exists between attitudes towards multicultural education and both intercultural sensitivity overall as well as its individual dimensions (i.e., interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness).

Unlike the previously cited works, Uğur (2019) included all three variables, i.e., cultural intelligence, attitudes towards multicultural education, and intercultural sensitivity. Working with teachers, Uğur's study investigated the mediator role of multicultural education attitudes on the relationship between intercultural sensitivity and cultural intelligence. It was concluded that (i) a significant, weak, and positive relationship exists between cultural intelligence and intercultural sensitivity, (ii) a significant, moderate, and positive relationship exists between cultural intelligence and attitudes towards multicultural education, and (iii) a significant, weak, and positive relationship exists between intercultural sensitivity and attitudes towards multicultural education. Additionally evidence was reported that (i) intercultural sensitivity was a positive and moderate predictor for cultural intelligence and attitudes towards multicultural education, and that (ii) multicultural education attitudes were a positive and weak predictor for cultural intelligence. Finally, a partial

mediator role of multicultural education attitudes was detected in Uğur's (2019) research for the relationship between intercultural sensitivity and cultural intelligence. Similarly, a recent work by Katıtaş et al. (2024) examined the mediator role of intercultural sensitivity on the relationship between teachers' cultural intelligence and multicultural education attitudes. The study concluded that (i) cultural intelligence had a statistically significant effect on intercultural sensitivity, (ii) that a positive, high, and statistically significant relation exists between intercultural sensitivity and multicultural education attitudes, (iii) that cultural intelligence was revealed to have a statistically significant effect on teachers' multicultural education attitudes, and that (iv) intercultural sensitivity had a significant and fully mediating role in the relationship between teachers' cultural intelligence and multicultural education attitudes.

Rationale and objectives of the study

As previously discussed, forced and/or voluntary migration waves around the world have resulted in less homogeneous societies overall, and the inevitability that brings of more heterogeneous classes in schools. Considering the geographical and political context of Turkey, these global impacts have been felt more vividly in the country than perhaps elsewhere. The related dynamics with this change have increased the importance of teachers in creating fairer and more inclusive environments for students from different backgrounds (Le Roux, 2000; Nieto & Bode, 2010), which is line with the aims of what is termed "multicultural education." Since teachers' attitudes towards multicultural education greatly affects their teaching (Davidman & Davidman, 2001), examining the potential determinants of multicultural education attitudes is considered valuable in the creation of effective practices for multicultural education. The review of the literature has shown promising results for cultural intelligence and intercultural sensitivity as underlying factors for teachers' multicultural education attitudes. Although a few studies have investigated mediating mechanisms of these variables for teachers, there has yet to be any research published with a focus on preservice teachers in this sense. As such, the current study aims to address these gaps and contribute to the literature by answering the following research questions:

1. What are the relationships among cultural intelligence, intercultural cultural intelligence, intercultural sensitivity, and attitudes towards multicultural education?
2. What is the direct effect of cultural intelligence on attitudes towards multicultural education?
3. Does intercultural sensitivity mediate the relationship between cultural intelligence and attitudes towards multicultural education?

3. Methodology

4.1. Research Design

This research was designed as a predictive correlational study. Correlational designs are studies in which the relationships between two or more variables are subjected to examination without any interference with these variables. It has been stated that correlational studies are important and effective in revealing relationships between variables, determining the level of the identified relationships, and in providing the necessary clues for more comprehensive research on these relationships (Büyüköztürk et al., 2024).

4.2. Participants

Convenience sampling was used in the selection of the study's sample, which consisted of 287 undergraduate students studying in various departments at Marmara University's Faculty of Education in the 2022-2023 academic year. Of the participants, 241 (84%) were female and 46 (16%) were male; and 51 (17.8%) were first-year students, 85 (29.6%) were second-year students, 80 (27.9%) were third-year students, and 71 (24.7%) were fourth-year students.

4.3. Data Collection Instruments

The Cultural Intelligence scale was originally developed by Ang et al. (2007). The scale consists of 20 items scored on a 7-point, Likert-type scale from 1 = *strongly disagree* to 7 = *strongly agree*. It aims to assess cultural intelligence levels across four dimensions; cognitive, metacognitive, motivational, and behavioral. In the scale, cognitive intelligence refers to "knowledge of the norms, practices and conventions in different cultures"; metacognitive intelligence refers to "mental processes that individuals use to acquire and understand cultural knowledge, including knowledge of and control over individual thought processes relating to culture"; motivational intelligence refers to "the capability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences"; and behavioral intelligence refers to "the capability to exhibit appropriate verbal and nonverbal actions when interacting with people from different cultures" (Ang et al., 2007, p. 338). The Cronbach alpha coefficient of the original scale ranged from .72 to .86 for the dimensions.

The current study used the Turkish version of the Cultural Intelligence scale, which was adapted by İlhan and Çetin (2014). In their study, they completed the adaptation process and concluded that the psychometrics properties of the scale's Turkish version matched that of the original instrument, with 20 items and four dimensions. The Cronbach alpha coefficient of the Turkish version of the scale was found to be .85, with internal consistency reliability scores for the four dimensions as .79 (cognitive), .77 (metacognitive), .75 (motivational), and .71 (behavioral).

The Intercultural Sensitivity scale was originally developed by Chen and Starosta (2000). The scale consists of 24 items presented as a 5-point, Likert-type instrument ranging from 1 = *strongly disagree* to 5 = *strongly agree*. It aims to measure intercultural sensitivity levels through five dimensions; interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. In the scale, interaction engagement relates to "participants' feeling of participation in intercultural communication," respect for cultural differences relates to "how participants orient to or tolerate their counterparts' culture and opinion," interaction confidence relates to "how confident participants are in the intercultural setting," interaction enjoyment relates to "participants' positive or negative reaction towards communicating with people from different cultures," and interaction attentiveness relates to "participants' effort to understand what is going on in intercultural interaction" (Chen & Starosta, 2000, p. 9). The Cronbach alpha coefficient of the scale was revealed as .86. In the current study, the Turkish version of the Intercultural Sensitivity scale adapted by Üstün (2011) was utilized. In the adaptation study, following the required statistical analysis, item loads of the dimensions appeared differently from that of the original structure. Under supervision of one of the scale's developers, the Turkish version of the Intercultural Sensitivity scale was utilized as a single-factor scale. Additionally, one item was deleted in creating the scale's Turkish version as a result of the statistical analysis. The Cronbach alpha coefficient of the Turkish version of the scale was found to be .90.

The Preservice Teachers' Attitudes Towards Multicultural Education scale was developed by Yavuz and Anıl (2010). The scale consists of 28 items scored on 5-point, Likert- type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Item analysis and exploratory factor analysis was performed to determine construct validity of the scale, from which it was seen that the scale had a single factor construct. The Cronbach's alpha coefficient of internal consistency of the scale was revealed as .93.

4.4. Data Analysis

Data were analyzed using IBM's SPSS Statistics software (Version 26) and AMOS (Version 26.0) software for Windows. The obtained data were arranged and the assumptions required for structural equation modeling (SEM) were tested. When the univariate and multivariate extreme values were

examined, data from 28 respondents with extreme values were removed from the original dataset (*N* = 315), and primary analyses then conducted with data from 287 respondents.

The normality of the data was also checked and found to be distributed normally. Descriptive statistics of the variables were calculated and Pearson correlation coefficients were implemented in order to explore associations between the variables. Structural equation modeling (SEM) was then applied and maximum likelihood estimation used to investigate the correlation between the structures in the research model. The reference values for the fit indices examined were as follows: $\chi^2 / df \leq 5$ is an acceptable fit, $\chi^2 / df \leq 2$ is a good fit; RMSEA ≤ .05 is a good fit; .05 < RMSEA ≤ .10 is an acceptable fit, RMSEA ≤ .05 is a good fit; .05 < SRMR ≤ .10 is an acceptable fit, SRMR ≤ .05 is a good fit; .90 ≤ CFI < .95 is an acceptable fit, CFI ≥ .95 is a good fit; .90 ≤ GFI < .95 is an acceptable fit, GFI ≥ .95 is a good fit; .90 ≤ NFI < .95 is an acceptable fit, NFI ≥ .95 is a good fit (Hooper et al., 2008; Hu & Bentler, 1999; Kline, 2015; Tabachnick & Fidell, 2013; Vandenberg & Lance, 2000). Finally, a bootstrapping procedure was employed to test the statistical stability of the models with 5,000 resamples according to a 95% confidence interval (Preacher & Hayes, 2008).

4. Results

In order to investigate the study's first research question, relationships among cultural intelligence, intercultural cultural intelligence, intercultural sensitivity, and attitudes towards multicultural education, descriptive statistics and correlations for the variables were examined (see Table 1).

Table 1. Descriptive Statistics and Correlations for Study Variables

Variable	M	SD	1	2	3	4	5	6	7
1. Intercultural sensitivity	96.57	10.970	-						
2. Attitudes towards multicultural education	125.00	11.661	.625**	-					
3. Metacognitive	16.35	2.722	.621**	.395**	-				
4. Cognitive	19.12	4.904	.401**	.202**	.505**	-			
5. Motivational	19.86	3.794	.779**	.502**	.639**	.567**	-		
6. Behavioral	18.95	3.777	.500**	.364**	.554**	.453**	.595**	-	
7. Cultural intelligence	74.27	12.374	.687**	.432**	.785**	.820**	.853**	.789**	-

**p < .01

As can be seen from Table 1, there was a significant, moderate, and positive correlation between attitudes towards multicultural education and overall cultural intelligence (*r* = .432; *p* < .01). Likewise, significant, moderate, and positive relations were determined between attitudes towards multicultural education and three of the dimensions (metacognitive, motivational and behavioral) of cultural intelligence (*r* = .395, *r* = .502, *r* = .364, respectively; *p* < .01). Additionally, there was a significant, positive, but weak relation revealed between attitudes towards multicultural education and the cognitive dimension of cultural intelligence (*r* = .202; *p* < .01). This finding indicates that when individuals' cultural intelligence levels increase, their attitudes towards multicultural education also increase. There were also significant, moderate, and positive correlations revealed between intercultural sensitivity, which was the mediator variable of the research, cultural intelligence, and attitude towards multicultural education (*r* = .687, *r* = .625, respectively; *p* < .01). These findings indicate that when individuals' intercultural sensitivity increase, both their cultural intelligence and attitudes towards multicultural education also increase.

The second research question investigated the direct effect of cultural intelligence on attitudes towards multicultural education. In the tested model, the cultural intelligence variable was exogenous and the attitude towards multicultural education variable was the endogenous variable. The standardized coefficient between cultural intelligence and attitude towards multicultural education was found to be significant ($\beta = .53$, $p < .001$). This indicates that the variable of cultural intelligence significantly predicted attitude towards multicultural education. The results of these findings are presented Figure 1 and Table 2.
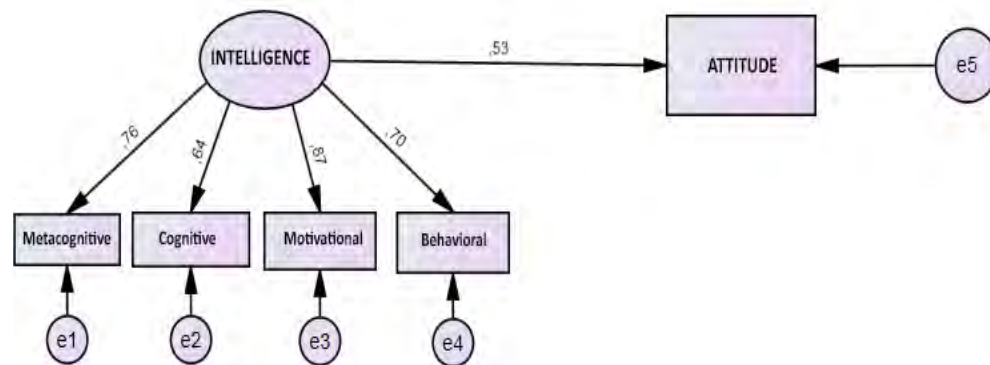

Figure 1. Theoretical Model 1

Table 2. Findings of Fit Indices for Theoretical Model 1

	χ^2	df	χ^2 / df	RMSEA	AGFI	GFI	CFI	NFI
Theoretical Model 1	19.135	5	3.827	.076	.925	.975	.972	.963

When the goodness-of-fit statistics in Table 3 were examined, it was seen that the obtained values showed a good or acceptable level of fit (GFI, CFI, and NFI = good; χ^2 / SD, RMSEA, and AGFI = acceptable) (Hooper et al., 2008; Hu & Bentler, 1999; Kline, 2015; Tabachnick & Fidell, 2013; Vandenberg & Lance, 2000).

In order to examine whether intercultural sensitivity mediated the relationship between cultural intelligence and attitudes towards multicultural education, as in the third research question, another model was tested through path analysis. The results of the analysis are illustrated in Figure 2 and presented in Table 3.
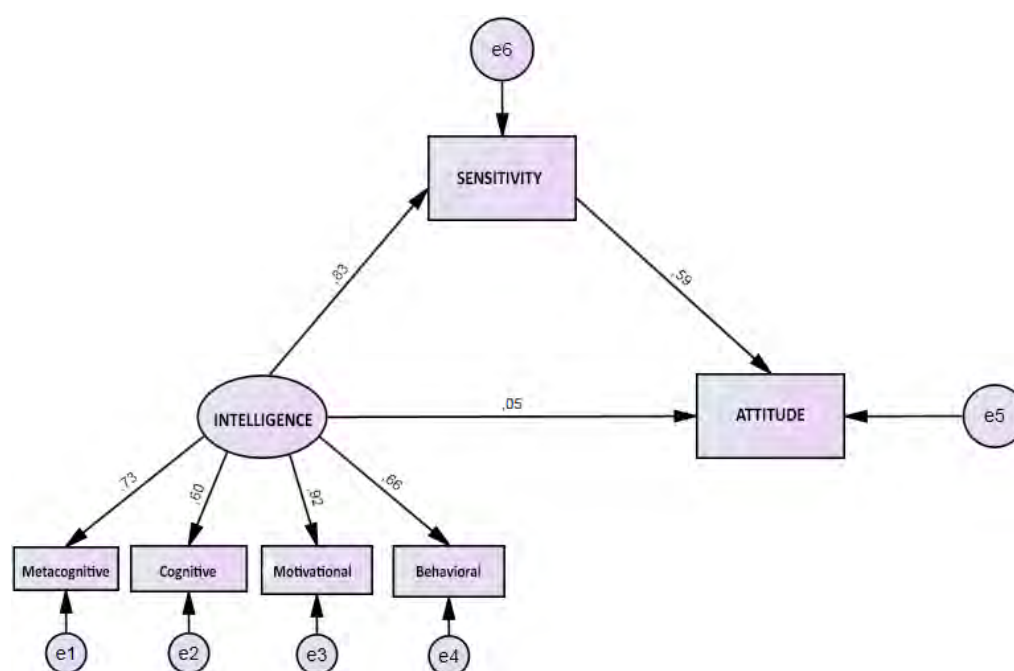
Figure 2. Theoretical Model 2

Table 3. Findings of Fit Indices for Theoretical Model 2

	χ^2	df	χ^2 / df	RMSEA	AGFI	GFI	CFI	NFI
Theoretical Model 2	42.824	8	5.353	.078	.896	.955	.959	.951

When the goodness-of-fit statistics shown in Table 3 are examined, it can be seen that the values obtained show a good and acceptable level of fit (GFI, CFI, and NFI = good; χ^2 / SD, RMSEA, and AGFI = acceptable).

As observed in the results of the mediation model, cultural intelligence significantly predicted intercultural sensitivity (β = .826; p < .05), and intercultural sensitivity significantly predicted attitudes towards multicultural education (β = .587; p < .05). On the other hand, cultural intelligence did not significantly predict attitude towards multicultural education (β = .046, p = .630 > .05). It was also seen that the standardized indirect effect of cultural intelligence on the attitude towards multicultural education was .485, with a standardized total effect of .531. When the confidence intervals were estimated using a 5,000 sample bootstrap approach, it was seen that for the standardized indirect effect of cultural intelligence on the attitude towards multicultural education, the confidence interval was from .323 to .672, whilst the for standardized total effect the confidence interval was from .435 to .627, and that these effects were significant (p = .002 < .05). The standardized direct effect of cultural intelligence on the attitude towards multicultural education showed a confidence interval from -.169 to .266, but this effect was not found to be significant (p = .630 > .05). These results showed that the association between cultural intelligence and attitude towards multicultural education were fully mediated by intercultural sensitivity.

5. Discussion and Conclusion

The aim of the current study was to examine the mediator role of intercultural sensitivity of preservice teachers between cultural intelligence and attitudes towards multicultural education. To that end, the relationship between cultural intelligence scores and attitudes towards multicultural education was examined and it was concluded that a significant, moderate, and positive relation exists between these variables, which was a finding also echoed in the study of Koçak and Özdemir

(2015). When the relationships between attitudes towards multicultural education and the dimensions of cultural intelligence were investigated, significant, moderate, and positive relations were seen with metacognitive, motivational, and behavioral dimensions. For the cognitive dimension, the relation was significant and positive, but weak; a finding that aligned with research studies conducted by Gezer and Şahin (2017), Koçak and Özdemir (2015), and also Uğur (2019). However, these findings were inconsistent with the results from Ekici's (2017) and Özer Koçak's (2020) research, which reported there being a significant, positive, but weak relationship between attitudes towards multicultural education and cultural intelligence. The weak relationship between attitude towards multicultural education and the cognitive dimension of cultural intelligence can be shown as evidence that not every preservice teacher who has sufficient knowledge about other cultures may have a high-level of positive attitude towards multicultural education. This assumption may also be the case in reverse, which implies that the inadequacy of knowledge about different cultures may not prevent the development of positive attitudes towards multicultural education.

From examining the relationship between cultural intelligence and intercultural sensitivity, a significant, moderate, and positive relationship was revealed, which echoes the findings of studies by Abasli and Polat (2019), Suna (2024), and Yüksel Kaçan (2018). On the other hand, this same finding was not resonated in Ügur's (2019) research in which a weak relation was concluded.

The results of the current study also showed revealed a significant, moderate, and positive relationship between intercultural sensitivity and attitudes towards multicultural education. This finding aligns with the studies of Kim and Connelly (2019) and Onur Sezer and Bağçeli Kahraman (2017), but not with Uğur (2019) who established that a weak relation existed between the variables in their study.

Path analysis was then used to reveal the extent to which the variables predicted each other. The findings showed that cultural intelligence significantly predicted attitude towards multicultural education, and Gezer and Şahin (2017) also concluded similar results from their research. Improving cultural intelligence levels of preservice teachers might therefore increase their willingness to learn the (dis)similar aspects of different cultures, to take action towards multicultural education, and to behave appropriately according to cultural diversity. It may be stated that such an improvement could lead to a positive change in their attitudes towards multicultural education.

It was also concluded that cultural intelligence significantly predicted intercultural sensitivity, which is a finding echoed in the research studies published by Abasli and Polat (2019), Mercan (2016), and also Üğur (2019). Cultural intelligence was shown to have a significant effect on intercultural sensitivity, and that higher cultural intelligence led to higher intercultural sensitivity. It may be said, therefore, that cultural intelligence, which is defined as the ability to adapt to different cultures, plays a key role in intercultural sensitivity.

The results of the current study indicate that intercultural sensitivity significantly and moderately predicted attitudes towards multicultural education, which can be said to align with the research results of Üğur (2019). In their study, Üğur (2019) examined the mediating role of attitude towards multicultural education in the relationship between intercultural sensitivity and cultural intelligence, and stated that attitude towards multicultural education was shown to be a partial mediator. In the current study, the mediating role of intercultural sensitivity in the relationship between cultural intelligence and attitudes towards multicultural education was examined. As observed in the results of the mediation model, cultural intelligence significantly predicted intercultural sensitivity and intercultural sensitivity significantly predicted attitudes towards multicultural education. On the other hand, it was also revealed that cultural intelligence did not significantly predict attitude towards multicultural education when intercultural sensitivity was utilized as the mediator variable. These results show that the relationship between cultural intelligence and attitude towards multicultural education was fully mediated by intercultural

sensitivity. This finding is consistent with the study of Katıtaş et al. (2024), in which intercultural sensitivity was found to have a significant and a fully mediating role in the relationship between teachers' cultural intelligence and multicultural education attitudes. Thomas and Inkson (2005) stated that individuals with high cultural intelligence have the competence to understand other cultures, the cognitive equipment related to different cultures, and that they can adapt themselves by exhibiting behaviors compatible with other cultures while communicating with them. They also stated that through the development of cultural intelligence, sensitivity to different cultures can increase, and with this increase they would attempt to restructure their attitudes towards multicultural education. It may therefore be said that the cultural intelligence of preservice teachers has an indirect effect on their attitudes towards multicultural education, which is also supported by the theoretical structure.

Based on these findings, it can be stated that preservice teachers' cultural intelligence affects their attitudes towards cultural education through intercultural sensitivity. Teachers with a high level of cultural intelligence can be more respectful to students from different cultures, and as a result communicate more easily with them. Once teachers have increased compatibility with students from different cultures, they will likely be more satisfied with the status quo, and their positive attitude would likely also have a positive effect on the classroom culture. A positive classroom atmosphere can also be said to strengthen students' sense of belonging, which will be reflected in a constructive manner to society in general. Therefore, inevitably, the intercultural sensitivity, cultural intelligence, and multicultural education attitudes of teachers affects their behaviors towards students from different cultures within the classroom environment. For these reasons, PSTs need to undergo qualified instruction regarding multicultural education. Since improving the cultural intelligence and intercultural sensitivity levels of PSTs will also affect their attitudes towards multicultural education, there is a stronger likelihood of them providing more qualified education to their own students from different cultures when they themselves become serving teachers.

The current study has certain limitations that should also be highlighted, hence the findings should be interpreted with a degree of caution. First, due to the study's cross-sectional design, causality among the variables could not be confirmed. Further studies might therefore adopt longitudinal designs in order to overcome this limitation. Second, the study only followed a quantitative method, therefore future research could analyze both quantitative and qualitative data methods in order to investigate the relations among the variables for a deeper and more comprehensive understanding of the phenomenon. Finally, since data in the current study were collected from PSTs at a state university, generalization of the results may not be possible in all cases, hence further investigations may consider different sampling methods in order to maximize diversity.

Declarations

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