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Exploring and Assessing Cross-cultural Sensitivity in Bosnian Tertiary Education: Is there a real promise of harmonious coexistence?

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Abstract

The aim of this research was to examine how university type, nationality, GPA, gender and grade level affect the cross-cultural sensitivity of students at tertiary level of education in Bosnia and Herzegovina. The revised and updated Inventory of Cross-Cultural Sensitivity (ICCSv2) was utilized for data collection. It contains four subscales: cultural inclusion, cultural behavioral integration, cultural anxiety, and cognitive flexibility. The representative sample consists of 219 students. The results have shown that university type, GPA and nationality have a significant effect on the development of cross-cultural sensitivity, while gender and students' grade level do not appear to have a significant impact on cross-cultural sensitivity. The results suggest that university along with its peculiar properties has a significant influence on shaping students' cross-cultural development. The major implication of the study is that some aspects of cross-cultural sensitivity can be developed further in the university milieu and through curriculum adjustment.

Keywords: cross-cultural sensitivity, university, grade level, GPA, gender, nationality.

1. Introduction

Culture can be defined as any framework of expectations and values (Brislin, Yoshida, 1994) and as 'learned and shared patterns of beliefs, behaviors, and values of groups of interacting people' (Bennett, 1998: 2). With economic globalization, rapid technological development and blending of myriads of different cultures resulting in rich cultural diversity, the amount of direct contact between people of diverse cultural backgrounds is increasing (Brislin, Yoshida, 1994; Yu, Chen, 2008). This cross-cultural contact and social interaction create a need for the development of deep sensitivity to cultural diversity. Anderson, Lawton, Rexeisen, and Hubbard (2006, p. 3) believe that "our ability to function effectively in an environment depends upon our skill in recognizing and responding appropriately to the values and expectations of those around us". The aforementioned authors also maintain that a combination of an individual's sensitivity to

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cultural differences and his potential for adjusting his behavior to those differences will become exceedingly valuable as his environment becomes more diverse and as economic globalization intensifies (Anderson et al., 2006).

Bosnia and Herzegovina* is an increasingly diverse country, with three dominant ethnic groups, declaring themselves as members of different religions and claiming to speak different languages, and with a growing number of immigrants, entrepreneurs, particularly from Turkey and Arab countries, as well as international students at several recently established private international universities (Bećirović et al., 2017). Taking into consideration strained relationships among these three culturally divergent groups as residues of the unfortunate 1990s events and a rather limited previous contact of Bosnian people with different cultures, there seems to exist a compelling need in Bosnian and Herzegovinian society for intensive work on the promotion of intercultural values through the educational systems and this paper presents an important move in that direction. The focus of this research is to determine the level of cross-cultural sensitivity among university-level students in B&H. Since the research encompasses local students of different ethnical groups studying at a public university and both local and international students with different cultural backgrounds studying at two private international universities, it presents research findings on cross-cultural sensitivity in Bosnian tertiary education on both local and international level.

1.1. Literature review and background

The notion of cultural sensitivity has received a lot of attention in the field of intercultural education (Anderson et al., 2006; Aoki, 1992; Bennett, Bennett, 2004; Bhawuk, Brislin, 1992; Chen, Starosta, 1997; Hammer et al., 2003; Kapoor et al., 2000; Stone, 2006), and it has been defined as 'the ability to be sensitive to cues that are often subtle or unfamiliar and to adjust behavior and expectations accordingly' (Stone, 2006: 348). Research into cultural sensitivity focuses on either cross-cultural or intercultural sensitivity and despite the fact that these terms are sometimes used interchangeably (Bennett, 2010; Stone, 2006), in every in-depth analysis they have to be clearly disambiguated. As defined by Bennett (2010, 2012), the term cross-cultural refers to the contact among people from two or more cultures and this term is more likely to be used for a comparison among different cultural contexts. On the other hand, the term intercultural is more likely to be used for the interaction between members of different groups and refers either to a particular kind of contact in which cultural differences play a role in the creation of meaning or 'the kind of skills or competence necessary to deal with cross-cultural contact' (Bennett, 2010: 2).

Thus, intercultural sensitivity is claimed to be the crucial factor that enables people to live and work with people from different cultural backgrounds (Landis, Bhagat, 1996). It is defined as "the ability to discriminate and experience relevant cultural differences" (Hammer et al., 2003: 423) and as 'a sensitivity to the importance of cultural differences and to the points of view of people in other cultures' (Bhawuk, Brislin 1992: 414). Cross-cultural sensitivity is also referred to as the awareness and acceptance of other cultures and is defined as 'sensitivity to intercultural differences in general' (Aoki, 1992: 114). Bennett (1993) claims that intercultural sensitivity is not an inherent trait but it develops through experience and the core of its development is acquiring the ability to understand and experience cultural differences in a more complex way (Hammer et al., 2003). Thus, intercultural sensitivity can contribute to the development of necessary skills needed for an efficient performance in the increasingly complex global environment (Earnest, 2003).

Bennett (1986, 1993) created the Developmental Model of Intercultural Sensitivity (DMIS) aiming to explain why people react differently to cultural experiences. Bennett's DMIS model describes progressive stages of intercultural development through which people pass when they face difficulties in encountering other cultures, with the initial stage of the explicit denial of the existing cultural differences, namely ultimate *ethnocentrism*, to the closing final stage of noticing and accepting cultural differences, namely *ethnorelativism* (Bennett, 1993). The basic premise of Bennett's model is that the competence to interact with others and those different from us increases when someone's understanding of cultural differences becomes more sophisticated, i.e.

* For the ease of reference, Bosnia and Herzegovina will be further referred to as B&H.

when someone's worldview incorporates cultural differences into their new identity (Hammer, Bennett, 2002).

Intercultural and cross-cultural sensitivity have been measured in different cultural contexts. Anderson, Lawton, Rexeisen, & Hubbard (2006) conducted research into intercultural sensitivity to assess the extent to which a short-term, faculty-led study abroad, as well as academic ability and gender, can affect intercultural sensitivity of student learners. In their subsequent study, the aforementioned authors measured whether the improvement in intercultural sensitivity continues months after the students return back from studying abroad (Anderson et al., 2008). Their research has shown that study abroad programs have a positive short-term impact on students' intercultural development, while the long-term impact of study abroad remains to be investigated further. Czerwionka, Artamonova, & Barbosa (2014) examined the intercultural competence development of Spanish students participating in a six-week study abroad program in Madrid. The research results showed a significant improvement in students' intercultural competencies, including intercultural knowledge, attitude, and skills. Aoki (1992, p. 107) conducted research into the effects of the culture assimilator as a teaching technique in cross-cultural education. His investigation focused on the assessment of the effectiveness of the Japanese Culture Assimilator in American college students' cross-cultural understanding and attitudes. His findings did not show positive effects on subjects' cross-cultural sensitivity or on their attitudes towards Japanese culture, but the reading of the culture assimilator increased their cross-cultural understanding, added sophistication to their cross-cultural thinking related to two specific cultures included, and added to the greater acceptance of Japanese people (Aoki, 1992). Jones, Neubrandner, & Huff (2012) investigated the effects of an intense cultural immersion experience on nursing students' cultural attitudes. The students participating in an intensive ten-day clinical cultural experience in South America were pre-tested and post-tested and they recorded their guided journal trip experiences. The results showed improvement in students' attitudes towards cultural differences in the travel group, but the improvement was insignificant (Jones et al., 2012).

B&H is believed to be more culturally diverse than any other country in the Balkans, since it is the intersection of three different ethnic groups (Bosniaks, Croats, Serbs and others), different religions (Islam, Christianity, Orthodox Christianity, Judaism, etc.), and different, but structurally similar languages (Bosnian, Croatian and Serbian). Although claimed to be maintained, the diversity in this region has repeatedly jeopardized the coexistence of these culturally divergent groups, often resulting in armed conflicts occurring once in fifty years or even three times in a century. These conflicts almost always led to additional divisions of the region into smaller ethnically dominant areas or even independent countries and thus a man living in this region is said to be born in one country and die in another (Cvičković, 2005).

B&H, largely torn by the late 1992-1995 war, is still a hotspot of this unresolved ethnic bigotry. These unfortunate events from the 1990s caused a far-reaching change in attitudes towards members of other ethnic and religious groups which prevail even today under the impact of pre-election political campaigns and political struggle steadily working its way through the mass media. A growing intolerance towards the others has resulted in a widening gap between Bosniaks, Croats and Serbs, particularly between young people belonging to these three groups. In some parts of the country, Bosnian youth even attend schools divided based on ethnic segregation, which are widely known as 'two schools under the same roof'. Rich internal diversity has been steadily increasing in the past few decades due to the considerable growth of the number of immigrants, asylum seekers, entrepreneurs etc. Apart from the aforementioned groups, a significant number of international students have come to live and study in B&H at several private international universities established in the country (Rizvić, Bećirović, 2017). These universities are attended by students from B&H, the countries of the Balkan region, and many other world countries. However, the largest number of international students comes from Turkey.

Thus, Bosnian-Herzegovinian society, known for its diversity (ethnic, religious, linguistic etc.) and wealthier in that respect than many other European and world countries, is in urgent need of a comprehensive and continuous activity on the promotion of intercultural values through the educational system (Bećirović, 2012). This need is further heightened by the fact that B&H is a member of the Council of Europe and is striving to become a member of the European Union, the domain in which intercultural values are carefully fostered. Intercultural upbringing and education, viewed in the context of European values promotion and support for the European

dimension of education as the dominant guideline in educational policies of European countries, reflect the need for a novel approach to designing an international curriculum as a sub-construction process that is developed through interaction in a concrete social context (Brdarević Čeljo, Asotić, 2017; Dantow et al., 2002).

Thus, this research can be highly beneficial as there are not many empirical studies that deal with interculturality and intercultural education in the Balkan region, and with cross-cultural sensitivity in particular. Bećirović (2015) conducted a research on intercultural elements in curriculums and religious education school textbooks and intercultural attitudes of religious education teachers. The findings confirmed the existence of elements that may contribute to intercultural development, as well as elements that may lead to ethnocentrism. The same researcher carried out the analysis of English language textbooks used in Bosnian and Herzegovinian educational system (Bećirović, 2016) and the research results showed that there exists a systematic approach to the promotion of intercultural values. However, it is worth mentioning that there is some difference in the promotion of intercultural values between English language textbooks, published by the International publishers such as Pearson and Longman, and textbooks written by local authors and published at the local level. For instance, Husremović, Powell, Šišić, and Dolić (2007) conducted an analysis of history, geography, native language and religious education textbooks used in the educational system in B&H and identified the presence of elements that can contribute to intercultural competence, as well as elements that can have a negative impact on intercultural skills

Since previous experience has shown that an exceptionally low level of tolerance for diversity at the territory of B&H and the Balkans can have devastating consequences, people of different cultural backgrounds, youth in particular, must develop deep intercultural and cross-cultural sensitivity and competence to eliminate bigotry and prevent the recurrence of any kind of conflict and as a result to live harmoniously and peacefully in this culturally divergent society. As no empirical studies in the field of cross-cultural sensitivity have been undertaken in Bosnian context, this research can surely fill the gap in expert literature related to this matter and may be used as a guideline for the adjustment and improvement of all the curriculums followed in Bosnian education system.

2. The current study

The aim of this research was to examine how university type, nationality, GPA, gender and grade level were related to the cross-cultural sensitivity of students at tertiary level of education in B&H. Using participants' university, nationality, gender, grade level and GPA as independent variables, we explored the cross-cultural sensitivity and its four subscales (cultural inclusion, cultural behavioral integration, cultural anxiety, and cognitive flexibility) developed by each group of the participants. Therefore, the following hypotheses were tested:

1. H_0 There is no statistically significant difference in cross-cultural sensitivity including its subscales based on university type.
2. H_0 There is no statistically significant difference in cross-cultural sensitivity including its subscales based on students' grade level.
3. H_0 There is no statistically significant difference in cross-cultural sensitivity including its subscales based on students' GPA.
4. H_0 There is no statistically significant difference in cross-cultural sensitivity including its subscales based on gender.
5. H_0 There is no statistically significant difference in cross-cultural sensitivity including its subscales based on nationality.

2.1. Participants

The stratified random sampling was employed in the process of participants' selection. The research sample consists of 219 students from three universities in B&H: 62 participants from one public university (28.3 %) located in Zenica-Doboj Canton, and 157 (71.7 %) from two private universities, both located in Sarajevo Canton. 69 students from one private international university and 88 participants from the other private university participated in the study. Students from public university belong to different ethnic and religious groups elaborated in the cultural

background section. The students studying at two private universities come from Bosnia and Herzegovina, the Balkan region and Turkey, with some students from other world countries as well. Currently, 36% of the first private university students and 40 % of the second private university students are international (the percentage is subject to change) and the remaining students at these universities come from different cantons in B&H and belong to different ethnic and religious groups. The research sample comprises 121 female and 98 male participants, with the age span from 18 to 35, and with the mean of age $M = 21.5$ and standard deviation $SD = 3.11$. The sample consists of 125 Bosnian students, 78 Turkish students and 16 students of other nationalities, all of them being either freshmen, sophomores, juniors, seniors or master level students. Based on the students' GPA, the research sample includes four groups of participants: group 1 with GPA 6.9 or less, group 2 with GPA 7.0-7.9, group 3 with GPA 8.0-8.9, and group 4 with GPA 9.0-10. A detailed description of participants is provided in [Table 1](#).

Table 1. Descriptive analysis of participants

Variable	Group	N	Percent
Type of the University	Public	62	28.3
	Private	157	71.7
Nationality	Bosnian	125	57.1
	Turkish	78	35.6
	Others	16	7.3
Gender	Female	121	55.3
	Male	98	44.7
Grade level	Freshman	55	25.1
	Sophomore	42	19.2
	Junior	38	17.4
	Senior	60	27.4
	Master	24	11
GPA	Group 1 (6.9 or less)	34	15.5
	Group 2 (7.0-7.9)	76	34.7
	Group 3 (8.0-8.9)	62	28.3
	Group 4 (9.0-10)	47	21.5
Total		219	100

2.2. Measures and procedures

In this research the Inventory of Cross-Cultural Sensitivity (ICCSv2), the updated version of the ICCS developed by Cushner in 1986 ([Mahon, Cushner 2014](#)), was employed. The same instrument was used by different authors ([Aoki, 1992](#); [Loo, 1999](#); [Martinsen, 2010](#), [Alonso-Marks, 2012](#)). When it was initially developed, the ICCS was tested on multiple populations and it was determined that it has an acceptable content and construct validity. The original instrument consisted of 32 questions with five scales ([Cushner, 2003](#)), including cultural integration ($\alpha = 0.94$), behavior ($\alpha = 0.70$), intellectual interaction ($\alpha = 0.88$), attitudes towards others ($\alpha = 0.78$), and empathy ($\alpha = 0.52$) ([Mahon, Cushner, 2014](#)). However, Cushner revised and updated the Inventory of Cross-Cultural Sensitivity (ICCSv2) and the empathy scale was dropped due to its weakness and the fixed four factors were analyzed ([Mahon, Cushner, 2014](#)). Thus, the Inventory of Cross-Cultural Sensitivity (ICCSv2) used in this study includes the following subscales: cultural inclusion (13 items), cultural behavioral integration (10 items), cultural anxiety (11 items, all these subscale items were reverse-coded) and cognitive flexibility (10 items). An item example of cultural inclusion is "I have at least one good friend with whom I interact weekly whose family speaks a different language than mine does". For the subscale cultural behavioral integration, an example item is: "I enjoy studying about people from other cultures" and for cultural anxiety, an example item is: "When I am in a new situation, I often feel stressed because I do not know

the appropriate way to behave” (the reverse code). For the last subscale, namely cognitive flexibility, an example item is: “I enjoy having people from different cultures to my home on a regular basis”. The Inventory consists of 44 statements and a 7-point Likert scale, ranging from strongly disagree to strongly agree. The instrument contains two sections. Section A contains items related to demographic variables and Section B contains items related to cross-cultural sensitivity. The data about participants’ GPA was collected through students’ self-report statements. Based on the grading system used in Bosnian higher education, the minimum possible grade is 5 and the maximum 10.

After getting adequate consent, the inventory was administered to the students in classrooms, and the researchers properly explained to the students how to complete the inventory. The average time spent on completing the inventory was about 25 minutes.

2.3. Data analysis

In order to analyze the data gathered from the research participants, Statistical Package for the Social Sciences (SPSS) version 23.0 was used and descriptive statistics in terms of means, standard deviations, and frequencies were employed. A Pearson product-moment correlation coefficient was computed to assess the relationship between different subscales of cross-cultural sensitivity. Null hypotheses were tested by inferential tests. Since all the assumptions were met, the one-way Analysis of Variance (ANOVA) and an Independent-samples t-test were employed. In order to measure an effect size, Eta squared and Cohen’s *d* were employed.

3. Results

The descriptive findings including the number of participants, means, standard deviations, reliabilities, and correlations are presented in Table 2. The internal consistency reliability of the variables is acceptable. A Pearson product-moment correlation coefficient was computed to assess the relationship between cultural inclusion, cultural behavioral integration, cultural anxiety, and cognitive flexibility components. There was a positive correlation between all variables and it was significant except for the correlation between cultural behavioral integration and cognitive flexibility $p = .38$. The results show the strongest correlation between cognitive flexibility and cultural anxiety $r(219) = .48, p < .001$. The correlation between cultural inclusion and cultural anxiety is also significant $r(219) = .34, p < .001$. The detailed descriptive results, reliability scores and the correlations between all subscales are presented in Table 2.

Table 2. Descriptive statistics, Reliabilities, and Correlations among Variables

	N	Mean	SD	1	2	3	4
1. Cultural behavioral integration	219	4.74	0.82	(.82)			
2. Cultural inclusion	219	4.88	0.81	.23**	(.74)		
3. Cognitive flexibility	219	4.29	0.81	.06	.19**	(.70)	
4. Cultural anxiety	219	4.75	0.88	.16*	.33**	.48**	(.81)
Total score	219	4.68	0.55				

Note: Values on the diagonal in parentheses are Cronbach’s coefficients.

*. Correlation is significant at the .05 level (2-tailed).

** . Correlation is significant at the .01 level (2-tailed).

Question 1. Is there a statistically significant difference in cross-cultural sensitivity between private and public university?

An independent-samples t-test was conducted to compare the cross-cultural sensitivity of the students from public and private universities. There was an insignificant difference in the scores between the private university participants ($M = 4.71, SD = 0.57$) and the public university participants ($M = 4.62, SD = 0.49$); $t(217) = 1.10, p = .286, d = .16$. These results suggest that the type of the university does not have a significant effect on cross-cultural sensitivity. As for the four subscales, a significant difference has been found only with respect to the Cultural inclusion subscale ($p < .001, d = .62$), where the mean score ($M = 5.01, SD = 0.84$) for the participants from

the two private universities is significantly higher than the mean score ($M = 4.88$, $SD = 0.81$) for the participants from the public university. The mean scores on Cultural anxiety, Cultural Behavior integration, and Cognitive flexibility subscales are higher for the participants from the public university, but these differences are insignificant (Table 3).

Table 3. Descriptive results, significance, and effect size of subscales based on the type of university

	Private Universities		Public University		<i>p</i>	Cohen's <i>d</i>
	Mean	SD	Mean	SD		
Cultural beh. integ.	4.72	0.86	4.81	0.71	.482	.11
Cultural anxiety	4.74	0.89	4.76	0.87	.870	.02
Cultural inclusion	5.01	0.84	4.55	0.63	<.001	.62
Cognitive flexibility	4.26	0.85	4.36	0.89	.381	.11
Total	4.71	0.57	4.62	0.49	.286	.16

Question 2. Is there a statistically significant difference in cross-cultural sensitivity based on students' grade level?

A one-way between subjects ANOVA was conducted to compare cross-cultural sensitivity among students from different grade levels. There was an insignificant difference at $p > .05$ between the students of different grade levels $F(4,214) = 0.941$, $p = .441$, $\eta^2 = .017$. Master students achieved the highest mean score $M = 4.82$ ($SD = 0.50$), while freshmen students obtained the lowest mean score $M = 4.60$ ($SD = 0.51$). Thus, the results indicate that cross-cultural sensitivity increases by the year of the study, the only exception being senior students, who achieved lower mean score $M = 4.69$ ($SD = 0.62$) than junior students $M = 4.76$ ($SD = 0.59$). Therefore, the statistical analysis has shown that grade level does not have a significant effect on cross-cultural sensitivity. As for the subscales, no significant difference has been found in any of the subscales (Table 4).

Table 4. Descriptive results, significance, and effect size of cross-cultural sensitivity and its subscales based on the grade level

Variable	Freshman		Sophomore		Junior		Senior		Master		<i>p</i>	η^2
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Cultural beh. integ.	4.73	0.99	4.81	0.78	4.79	0.87	4.81	0.91	4.69	0.50	.969	.003
Cultural anxiety	4.64	0.82	4.60	0.84	4.88	1.05	4.81	0.91	4.94	0.75	.371	.020
Cultural inclusion	4.70	0.64	4.79	0.91	4.93	0.80	4.97	0.84	5.17	0.90	.115	.034
Cognitive flexibility	4.30	0.76	4.31	0.79	4.38	0.98	4.19	0.76	4.37	0.82	.801	.008
Total	4.60	0.51	4.64	0.50	4.76	0.60	4.70	0.62	4.82	0.50	.441	.017

Question 3. Is there a statistically significant difference in cross-cultural sensitivity based on students' GPA?

A one-way between subjects ANOVA was conducted to compare the cross-cultural sensitivity of students with different GPA. There was a statistically significant difference at the $p < .05$ for four groups $F(3,215) = 4.39$, $p = .005$, with an almost medium effect size $\eta^2 = .058$. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the first group's cross-cultural sensitivity ($M = 4.50$, $SD = 0.54$) was significantly different ($p = .043$) from the mean score

for group 3 ($M = 4.81, SD = 0.48$) and also significantly different ($p = .047$) from the mean score for group 4 ($M = 4.82, SD = 0.60$). However, the mean score of cross-cultural sensitivity for the second group ($M = 4.57, SD = 0.55$) does not statistically differ from the mean score for any group. Taken together, these results suggest that there is a statistically significant difference in cross-cultural sensitivity among groups of participants with different GPA. Specifically, our results suggest that GPA significantly affects cross-cultural sensitivity. As for the subscales the results showed a significant difference in cultural anxiety $p = .013$ with a medium effect size $\eta^2 = .049$ between the first and the third ($p = .043$) and the first and the fourth group ($p = .036$), then in cultural inclusion $p = .036$ with an medium effect size $\eta^2 = .039$ between the second and the fourth group ($p = .024$), and in cognitive flexibility $p = .013$ likewise with a medium effect size $\eta^2 = .049$ between the first and the third ($p = .029$) and between the second and the third group ($p = .025$). The descriptive results, significance, and effect size for cross-cultural sensitivity and its subscales based on students' GPA are displayed in [Table 5](#).

Table 5. Descriptive results, significance, and effect size of cross-cultural sensitivity and its subscales based on students' GPA

Variable	Group 1 (6.9 or less)		Group 2 (7.0-7.9)		Group 3 (8.0-8.9)		Group 4 (9.0-10)		p	η^2
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Cultural beh. integ.	4.57	0.77	4.76	0.86	4.78	0.77	4.82	0.88	.573	.009
Cultural anxiety	4.42	0.99	4.63	0.85	4.92	0.79	4.97	0.91	.013	.049
Cultural inclusion	4.84	0.61	4.70	0.86	4.95	0.74	5.13	0.90	.036	.039
Cognitive flexibility	4.08	0.80	4.17	0.85	4.56	0.72	4.29	0.80	.013	.049
Total	4.50	0.54	4.58	0.55	4.81	0.48	4.83	0.60	.005	.058

Question 4. Is there a statistically significant difference in cross-cultural sensitivity based on gender?

An independent-samples t-test was conducted to compare the cross-cultural sensitivity of female and male participants. There was an insignificant difference in the scores for female ($M = 4.74, SD = 0.54$) and male ($M = 4.61, SD = 0.56$) participants; $t(217) = 1.72, p = .086, d = .233$. These results suggest that gender does not have a significant effect on cross-cultural sensitivity. As for the four subscales, the mean scores for female participants are higher than the mean scores for male participants in all measures but these differences are insignificant ($p > .05$). The effect size is the largest on the cultural anxiety subscale $d = .13$ and the cultural behavior integration subscale $d = .08$ ([Table 6](#)).

Table 6. Descriptive results, significance, and effect size of subscales based on gender

	Female		Male		p	Cohen's d
	Mean	SD	Mean	SD		
Cultural beh. integration	4.81	0.82	4.67	0.82	.219	.08
Cultural anxiety	4.85	0.84	4.62	0.92	.059	.13
Cultural inclusion	4.92	0.79	4.84	0.83	.478	.04
Cognitive flexibility	4.32	0.78	4.24	0.84	.474	.04
Total	4.74	0.54	4.61	0.56	.086	.233

Question 5. Is there a statistically significant difference in cross-cultural sensitivity based on nationality?

A one-way between subjects ANOVA was conducted to compare the cross-cultural sensitivity of students of different nationalities: Bosnian, Turkish, and others. There was a statistically significant difference at $p < .05$ for three groups $F(2, 216) = 11.8$, $p < .001$, with a medium effect size $\eta^2 = .099$. Post hoc comparisons using the Tukey HSD test indicated that the mean score cross-cultural sensitivity for Bosnian students ($M = 4.82$, $SD = 0.53$) was significantly different ($p = .001$) from the mean score for Turkish students ($M = 4.45$, $SD = 0.51$) and not significantly different ($p = .934$) from the mean score for the “other” students ($M = 4.77$, $SD = 0.58$). However, the mean score of cross-cultural sensitivity for Turkish students does not statistically differ ($p = .074$) from the mean score for the group of “others”. Taken together, these results suggest that nationality has significant effects on cross-cultural sensitivity.

The results show a significant difference on two cross-cultural subscales: Cultural anxiety ($p < .001$) where the mean score for Bosnian students ($M = 4.94$, $SD = 0.84$) is significantly higher than the mean score for Turkish students ($M = 4.43$, $SD = 0.86$), and Cognitive flexibility ($p < .001$) where the mean score for Bosnian students ($M = 4.44$, $SD = 0.74$) is significantly higher than the mean score for Turkish participants ($M = 3.97$, $SD = 0.82$). The results did not show a significant difference on Cultural behavioral integration ($p = .130$) and Cultural inclusion ($p = .077$) subscales. The results show moderate effect size for Cognitive flexibility ($\eta^2 = .090$) and Cultural anxiety subscales ($\eta^2 = .074$) and small for Cultural behavioral integration component ($\eta^2 = .019$) and for cultural inclusion ($\eta^2 = .023$) (Table 7).

Table 7. Descriptive results, significance, and effect size of subscales based on nationality

Variable	Bosnian		Turkish		Other		<i>p</i>	η^2
	Mean	SD	Mean	SD	Mean	SD		
Cultural beh. integration	4.83	0.79	4.59	0.90	4.81	0.61	.130	.019
Cultural anxiety	4.94	0.84	4.43	0.86	4.82	0.90	.001	.074
Cultural inclusion	4.99	0.86	4.73	0.75	4.80	0.90	.077	.023
Cognitive flexibility	4.44	0.74	3.97	0.82	4.63	0.78	.001	.090
Total	4.82	0.53	4.53	0.51	4.77	0.58	< .001	.099

4. Discussion

The null hypothesis which stated that there is no statistically significant difference in cross-cultural sensitivity between students who study at public and private universities has been supported. Despite the fact that the mean score for private universities is higher, the difference is insignificant and there is no practical effect ($d = .16$). Private universities have a significantly higher mean score with a moderate effect size only on the cultural inclusion subscale ($p < .001$, $d = .619$) but the public university has insignificantly higher mean scores on all the other subscales.

We further hypothesized that there is no statistically significant difference in cross-cultural sensitivity based on students' grade level. Despite the fact that participants' cross-cultural sensitivity increases by the year of the study, this increase is not statistically significant ($p = .441$, $\eta^2 = .017$), and thus it can be concluded that grade level does not have a significant impact on cross-cultural sensitivity and this null hypothesis has been supported. Grade level also does not have a significant impact on any of the subscales of cross-cultural sensitivity.

The null hypothesis, which suggested that there is no statistically significant difference in cross-cultural sensitivity based on students' GPA, has been refuted ($p = .005$, $\eta^2 = .058$). The Post Hoc test indicates that the group of students with the lowest GPA (6.9 or less) shows a significantly lower level of cross-cultural sensitivity than the groups of students with GPAs from 8.0-8.9 and 9.0-10.0. These results are in agreement with the findings of Rienties, Tempelaar & Whitelock (2017) which showed that high-performing students often express a desire for stronger relationships with cross-cultural group members and mid- to low-performing students are much more likely to generate social tensions that may negatively affect cross-cultural group work process. Significant differences have also been found on the cultural anxiety, cultural inclusion and cognitive flexibility subscales.

The null hypothesis, which predicted that there is no statistically significant difference in cross-cultural sensitivity including its subscales based on gender, has been supported. Gender does

not have a significant impact on cross-cultural sensitivity ($p = .086$, $d = .23$), nor on any of the subscales. Even though the difference in cross-cultural sensitivity between male and female students is insignificant, female participants have a higher mean score. These results are in line with the research findings of Anderson, Lawton, Rexeisen & Hubbard (2008) which also revealed an insignificant difference, but their female participants consistently had a higher score on measuring overall intercultural development.

The null hypothesis, which proposed that there is no statistically significant difference in cross-cultural sensitivity based on nationality, has been refuted, as the results show that nationality significantly affects cross-cultural sensitivity ($p < .001$, $\eta^2 = .099$). Significant differences have also been found on all subscales except on the Cultural behavioral integration scale. The differences in cross-cultural sensitivity among three groups of students, namely Bosnian, Turkish, and other students, were also tested and the Post Hoc test showed that Bosnian students expressed the highest level of cross-cultural sensitivity. Many Bosnian participants study at international universities, and therefore they have had ample opportunities to develop cross-cultural skills while interacting with students from different cultures through their study programs etc. On the other hand, Turkish participants exhibited the lowest level of cross-cultural sensitivity, probably resulting from their general lack of social interactions with people from other cultures. Turkish participants mostly spend their time in homogenous groups during their studies, either in extracurricular activities, in dormitories, or in private apartments they rent, and some major Turkish communities, including entire families, even run their own businesses in B&H. In addition, many Turkish students celebrate every important event related to Turkey together, such as the winning election results of a favorite political party, the winning of the Turkish national team etc., on the main streets and squares of Sarajevo. In another cross-cultural study, Rienties, Tempelaar & Whitelock (2017) have also found that social relationships are necessary components of cross-cultural collaboration and that tensions in cross-cultural group work are due to a lack of social relationships. Since there is a great emphasis in the Turkish society on the interdependence of its members (Kagitçibasi, 1996) and since Turkish society displays a deeply rooted collectivistic social structure (Kagitçibasi, 1996; Phalet, Hagendoorn, 1996), Turkish students evidently foster closer mutual relationships than other students and they succeed in shaping each other's attitudes. Therefore, all of the aforementioned facts might have had an effect on their development of cross-cultural sensitivity. This is in agreement with Kelly's (1963) view that students can study abroad without experiencing the culture of the country they reside in. This is further strengthened by the results of Medina-Lo'pez-Portillo's (2004) research into the development of intercultural sensitivity of students spending 7 weeks or a semester in Mexico. The statistical significance of these results measuring the development of intercultural sensitivity was minor. Based on these facts, it might be stated that study abroad does not necessarily contribute to the development of cross-cultural sensitivity unless foreign students are exposed to some common experience and are involved into activities that will develop and strengthen their cross-cultural sensitivity. The results also lead to the conclusion that international students studying in B&H will not necessarily develop deeper cross-cultural sensitivity than local students. This conclusion is in line with the research results of Patterson (2006) who found only a small improvement in the intercultural sensitivity of the students who studied abroad and no improvement in the intercultural sensitivity of those students with a traditional classroom experience. However, some other studies reported different findings. Anderson, Lawton, Rexeisen & Hubbard (2006) found that a short-term study abroad had a positive impact on intercultural sensitivity. The same researchers also found that the longitudinal study abroad had a positive short-term impact on intercultural sensitivity, while the long-term impact remains in question (Anderson et al., 2008).

The results of this research should be a challenge, as well as a stimulus, to all those who strive to improve the quality of tertiary education and cross-cultural relationships. Since no similar research has been conducted among participants with similar cultural backgrounds either in B&H or the entire Balkan region, this study substantially contributes to the expert literature by documenting how different variables may affect cross-cultural sensitivity. The study also addresses the issue of a long-term impact on students and society in general. Introducing activities that improve and develop cross-cultural relations into the existing curriculums and educational approaches will inspire greater mutual respect and the acceptance of culturally different others, ensure closer cooperation and facilitate the overall progress, which will have a tremendous importance for B&H and the entire region. Since educational systems can play a crucial role in raising young people's awareness of the importance of developing effective cultural relations and

deep cross-cultural sensitivity, curriculum adjustments and changes in educational approaches can perform a major role in helping raise generations of young people to live in peace and harmony and work together towards a sustainable development of Bosnian society.

The limitation of this study lies in the fact that students' cross-cultural sensitivity was measured during their studies, without any pretest conducted prior to their enrolment at university. This pretest would have helped determine whether any important changes occur in cross-cultural sensitivity after a period of studying abroad. This is in line with the findings in Paige, Cohen, & Shively (2004) and Engle & Engle (2004), which confirmed that students' cross-cultural sensitivity increases as their study progresses.

Furthermore, testing the last null hypothesis is limited by the fact that the group named "others" includes only 16 participants, even though many experts require that the minimum number of participants per group be 20 (Simmons et al., 2011). However, McMillan (2012), maintains that the minimum number of participants per group is 10.

5. Conclusion

This research reveals the role and effects of tertiary education on the development of cross-cultural sensitivity in Bosnia and Herzegovina. Positive correlations have been discovered to exist between different components of cross-cultural sensitivity among tertiary-level students in such a way that the increase in one component causes the increase in the other components of cross-cultural sensitivity. The attribute 'international' in the name of university does not guarantee that such a university will have a significant effect on cross-cultural sensitivity. It has to encompass some other important elements, relevant experiences and conditions that will improve students' cross-cultural sensitivity. Thus, the public university had a greater influence on cross-cultural sensitivity than the other international university.

Furthermore, the participants' study progress has positive but insignificant effects on cross-cultural sensitivity, because the research results show that there is an insignificant increase in the participants' mean score parallel to their study progress. In addition, students' GPA has a significant influence on cross-cultural sensitivity, as the participants with a higher GPA express a significantly deeper cross-cultural sensitivity. Moreover, female students express an insignificantly deeper cross-cultural sensitivity than male students. This research further revealed that local students express deeper cross-cultural sensitivity than international students despite their pursuing study abroad. That can be explained by the fact that the majority of local students live in a deeply intercultural environment and study at international universities. Despite the fact that international students also study at the same universities, they spend a lot of time in homogenous cultural groups. The claim that such groupings may shape attitudes and cross-cultural sensitivity is also supported by the results obtained through this analysis, which revealed that the group 'others' composed of students of different nationality display deeper cross-cultural sensitivity than the international students belonging to one homogeneous national group, in this case the group of Turkish students.

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