Diagnosis of the level of cultural intelligence among students of economics universities in Poland

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Abstract

An analysis of literature shows that higher education institutions can actively influence the development of students' cultural intelligence (CQ) and thus express their social responsibility. The article's main aim is to diagnose the level of cultural intelligence among students of public economics universities in Poland and to determine the relationship between CQ and factors such as field of study, degree, and gender. This article was developed using research methods such as literature analysis, organizational documentation analysis, participant observation, and a Computer-Assisted Web Interview (CAWI) survey. The respondents were second-year full-time students, both bachelor and master's degree, of two majors: Management and International Economic Relations (in Polish Międzynarodowe Stosunki Gospodarcze – MSG for short). The study shows that the cultural intelligence of students of public economics universities in Poland is relatively high. No influence of gender on CQ was determined. Contrary to assumptions, it was not observed that MSG studies influence students' CQ development. The correlation between the degree of reflection and the level of cultural intelligence differs depending on the field of study. At each of the three universities studied, no significant differences were found in the overall level of cultural intelligence between students of the two studied majors.

Keywords: cultural intelligence, factors of cultural intelligence, university, social responsibility of higher education institutions, student

Introduction

According to the European Commission report "The World in 2025", a higher education institution (HEI for short) should take into account the complex problems of the modern world, such as limited resources, climate change, ageing societies, environmental degradation (European Commission, 2009). In addition to the teaching and research functions, referred to in the scientific literature as the first and second missions, a contemporary HEI is entrusted with building and developing relations with the environment, referred to as the third mission. Moreover, it is expected to be socially responsible in the same way as the commercial sector. This is confirmed not only in voluntary regulations created at the initiative of higher education institutions (e.g. The Principles of Responsible Management Education-PRME, The Talloires Declaration), but also in the acts regulating the functioning of universities. In Poland, Article 3 point 2 of the Law on Higher Education and Science states that "The system of higher education and science shall operate in accordance with international standards, principles of ethics and good practices in education and scientific activities, with particular regard to the social responsibility of science" (Ustawa z dnia 20 lipca 2018 r. Prawo o Szkolnictwie Wyższym i Nauce, 2018).

A socially responsible university is an organization serving the environment (Leja, 2008), engaging in community development, innovation development and human capital formation (Boucher et al., 2003; Chirileasa, 2013), developing students' social awareness, including basic social competences, understanding the need for participation, providing social contribution, and an ability to perceive and solve significant problems (Berman, 1990). An essential aspect of the social responsibility of universities is the development of professional competencies desired by the market. It should

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be noted that multiculturalism, work at the point where cultures converge, has become a distinctive feature of the current labor market. Organizations need people with strong adaptive skills to cope with unpredictable work situations and adapt to diverse social contexts (Pulakos et al., 2000; Suharti et al., 2019). Not to be underestimated in these conditions is cultural intelligence (CQ for short). One of the manifestations of a university's social responsibility will be the development of students' cultural intelligence, which companies expect from their employees.

Earley and Ang (2003) defined cultural intelligence as adapting to different cultural realities. CQ refers to the traits and skills by which people adapt quickly and with minimal stress to interactions in cultures other than the one in which they were socialized (Brislin et al., 2006; Thomas et al., 2008). This type of intelligence helps people adapt to multicultural environments and cope with stress, cultural barriers, and difficulties in cross-cultural communication and interaction (Le et al., 2018). Ng, Van Dyne, and Ang (2012) identify four core dimensions/components of CQ: metacognitive, cognitive, motivational, and behavioral. The metacognitive dimension reflects individuals' thought processes to acquire and understand cultural knowledge, including knowledge of and control over individual culture-related thought processes. The cognitive dimension of CQ reflects knowledge of the standards, practices and conventions of different cultures, gained both through education and personal experience. The motivational extent of CQ demonstrates the ability to direct attention and energy towards learning and functioning in situations characterized by cultural differences. The behavioral dimension of CQ reflects the ability to take appropriate verbal and non-verbal actions when interacting with people from different cultures.

Students' cultural intelligence – a review of current research

The level of cultural intelligence of university students has been the focus of many researchers. Mahasneh, Gazo and Al-Adamat (2019) compared the level of cultural intelligence among teachers and university students. They also tested whether there were statistically significant gender differences in the level of cultural intelligence. Mejri (2019) sought to determine whether American first-year college students' political party affiliation and level of cultural intelligence are related to social distance from international students. Other studies have analyzed the relationships between CQ and social and emotional intelligence (Social Skills Inventory), personality (Big Five), and self-assessment of students' cross-cultural experiences (Ang et al., 2006; Starčević et al., 2017; Ward et al., 2009). The relationships between the level of CQ and adaptability of international exchange students were analyzed (Suharti et al., 2019; Tamannaeifar and Hesampour, 2016). Crowne (2013) attempted to determine how different cultural exposures affect emotional intelligence and cultural intelligence. Shannon and Begley (2008)

noted that international work experience predicts CQ. Crown reached similar conclusions, saying that cultural exposure, taking place in employment and education abroad, influences CQ (Crowne, 2008). She emphasized the importance of the depth of exposure, i.e. the number of countries a person has visited for educational and professional purposes. Takeuchi and Tarique (2008) have shown that the number and length of international experiences students have had before entering university (even at a young age) positively affects cultural intelligence. Hartini et al. (2017) proposed a conceptual model regarding the impact of CQ on student engagement, particularly international students. Some researchers have tried to explain the role that factors related to education play in the development of CQ (Eisenberg et al., 2013; Robledo-Ardila et al., 2016).

There is relatively little research on the level of cultural intelligence of students coming from Central and Eastern Europe. In Romania, the cultural intelligence of business students was studied by Brancu, Munteanu and Golet (2016). In Croatia, Bobanovic and Grzinic (2019) measured Juraj Dobril University students' CQ in Pula studying tourism. On the other hand, in Poland, research related to the subject was conducted by Barzykowski, Majda, Szkup and Przyłęcki (2019), Kolano and Olszewski (2011), and Piwowarczyk (2016). The first team focused on the relationship between the level of CQ and the evaluation of experiences with other cultures and subjectively assessed success in intercultural contacts (respondents were university students and graduates from countries such as Poland, Lithuania, Hungary). Members of the second team investigated the possibility of applying the concept of cultural intelligence in medical education in Poland. Piwowarczyk (2016) pointed to the exemplary tools serving to improve students' cultural intelligence, such as the selection of content, forms and teaching methods and adoption of the right attitude by the teacher, who should be a representative and interpreter of foreign culture at the same time.

Because of the perceived research gap, it was decided to conduct research with the main objective of diagnosing the level of cultural intelligence of students of public economics universities in Poland and to determine the relationship between CQ and factors such as field of study, degree and gender.

Theoretical foundation and development of hypotheses

Numerous studies assessing the impact of academic courses in intercultural management on students' CQ (Eisenberg et al., 2013; MacNab, 2012; Putranto et al., 2015, Ramsey & Lorenz, 2016) prove that education has a positive effect on CQ. This article examined the relationship between CQ and the field of study in Polish public universities of economics. The majors chosen for the study are those found at all public universities of economics: Management and International Economic Relations (in Polish Międzynarodowe Stosunki

Gospodarcze – MSG for short). Both majors educate students in soft competencies, which are particularly important in advancing the internationalization of economic activity. While the Management major lacks courses in cultural conditions of conducting business activity, students in the MSG major participate in such courses. The MSG program is designed to support cultural intelligence and skills related to teamwork in international teams. In the MSG bachelor degree, students attend such semester courses as International Business and International Human Resources Management. The MSG master's degree covers subjects such as Cultural Aspects of International Business and Etiquette in International Business. An analysis of the syllabuses indicates that all these courses are taught using interactive lectures, exercises and case studies. Thus, they are not only theoretical but also practical in nature. It could be argued that MSG studies foster the development of cognitive/metacognitive, motivational and behavioral competencies required for effective cultural interaction (MacNab, 2012). The following hypothesis was formulated:

H1: *MSG students have higher cultural intelligence than Management students.*

The level of cultural intelligence can be influenced by the study program and the period during which the student acquires different types of international experience (both academic and professional). As a result, the CQ of a master's degree student should be higher than the CQ of a bachelor degree student. This difference results from the description of the course and the profile of the bachelor degree and master's degree student. Therefore, it is possible to pose a hypothesis:

H2a: *Master's degree MSG students have higher CQ than bachelor degree MSG students.*
H2b: *Master's degree Management students have higher IC than bachelor degree Management students.*

As the HEIs selected for the study are exclusively public HEIs located in large cities with similar curricula and offering equal opportunities for students to gain experience and develop cultural competencies (for example through student exchange programs, lectures by visiting professors, international student organizations, international academic projects), a similar level of CQ of students at all the HEIs studied was assumed.

H3a: *There are no significant differences in the overall level of cultural intelligence between MSG students of the studied universities.*
H3b: *There are no significant differences in the general level of cultural intelligence between students majoring in Management at the studied universities.*

Previous research on the relationship between CQ and gender is inconclusive. Studies by Keavanloo, Seyedahmadi, Mokhtari (2013) indicated that there were statistically significant gender differences in cultural intelligence in favor of men. According to Boba-novic and Grzinic (2019), women and men differ in their level of cultural intelligence, with women showing more significant sophistication in the behavioral component of CQ. In a study by Bücker et al. (2015) women had higher CQ scores than men, and were better equipped to develop this type of intelligence. According to the authors, the higher CQ of women than men makes them effective in cross-cultural communication. In contrast, studies by Mahasneh et al. (2019), Al-Jarrah (2016), Engle and Nehrt (2012), Ward and Fischer (2008) did not demonstrate statistically significant gender differences in cultural intelligence. Taking this into account, it was decided to investigate this issue in the conditions of Polish universities.

H4: *Women, regardless of the university they attended, show higher cultural intelligence than men.*

Materials and methods

CAWI surveys were conducted in November – December 2020, and before they were conducted permission was obtained on 11.05.2020 from the Cultural Intelligence Center to use the Cultural Intelligence Scale (CQS) to collect research data and publish the results in scientific journals. The CQS consists of 20 items covering the four dimensions of CQ: *four metacognitive* (I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds;

I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me; I am conscious of the cultural knowledge I apply to cross-cultural interactions; I check the accuracy of my cultural knowledge as I interact with people from different cultures), *six cognitive* (I know the legal and economic systems of other cultures; I know the rules e.g., vocabulary, grammar of other languages; I know the cultural values and religious beliefs of other cultures; I know the marriage systems of other cultures; I know the arts and crafts of other cultures; I know the rules for expressing non-verbal behaviors in other cultures), *five motivational* (I enjoy interacting with people from different cultures; I am confident that I can socialize with locals in a culture that is unfamiliar to me; I am sure I can deal with the stresses of adjusting to a culture that is new to me; I enjoy living in cultures that are unfamiliar to me; I am confident that I can get accustomed to the shopping conditions in a different culture) and *five behavioral* (I change my verbal behavior, e.g., accent, tone, when a cross-cultural interaction requires it; I use pause and silence differently to suit different cross-cultural situations; I vary the rate of my speaking when a cross-cultural situation requires it; I change my non-verbal behavior when a cross-cultural situation requires it; I alter my facial expressions when a cross-cultural interaction requires it). Each of the four dimensions was rated on a Likert scale from one to seven (1 = strongly disagree, 7 = strongly agree). The respondents were second-year full-time students, both first and second degree, of

two majors: Management and International Economic Relations. No incentive was offered to participate in the study. Prior to data collection, the rectors of all five public universities of economics in Poland, i.e. in Wroclaw, Warsaw, Krakow, Poznan and Katowice, agreed to conduct the study. The questionnaires were sent by internal mail to all students of the analyzed years and faculties. Finally, out of 202 completed questionnaires, 155 were selected for analysis (85 questionnaires from Wroclaw University of Economics, 35 from Poznan University of Economics and 35 from Krakow University of Economics). Questionnaires from UE Katowice and SGH Warsaw (in total 15 questionnaires) were rejected due to insufficient sample size, which prevented proper statistical analysis, inference and generalization. Another 32 questionnaires were omitted due to lack of data or biased responses.

Results

As part of the statistical analyses conducted, Cronbach's Alpha coefficient was calculated to measure the reliability of the research questionnaire. Reliability tests were needed because the questionnaire was translated into Polish and used in a different culture and at another time than in previous studies. A value of 0.9 for the major scale was accepted as an acceptable limit for scale reliability in educational measurement. Cronbach's Alpha coefficient for the whole IC scale of the translated questionnaire was 0.93. To test hypothesis H1 stating that MSG students have a higher level of cultural intelligence than Management students, an analysis using a t-test for independent samples was conducted. This analysis showed no direct effect and thus no significant differences between MSG students ($M = 96.7$; $SD = 16.4$) and Management students ($M = 95.8$; $SD = 17.4$) in terms of cultural intelligence $t(153) = 0.3$, Cohen's d = 0.05. Hypothesis H1: MSG students have higher cultural intelligence than Management students was not confirmed.

To test the hypothesis that MSG master's degree students have a higher level of cultural intelligence compared to MSG bachelor degree students, an analysis was conducted using the Mann-Whitney U test for independent samples (due to non-homogeneous variance). The results of this analysis showed a statistically insignificant effect of degree and thus no difference between master's degree students ($M = 95.29$; $SD = 20.86$) and bachelor degree students ($M = 97.31$; $SD = 14.36$) in terms of cultural intelligence $Z = 0.41$, ni. Hypothesis H2a: Master's degree MSG students have higher CQ than bachelor degree MSG students was not confirmed.

To test whether master's degree Management students have a higher level of cultural intelligence than bachelor degree Management students, an analysis was conducted using a t-test for independent samples. The results of this analysis showed a statistically significant effect of degree of study and thus a difference between master's degree students ($M = 91.9$; $SD = 18$) and bachelor degree students ($M = 100$; $SD = 15.7$) in terms of cultural intelligence $t(97) = 2.46$, $p < 0.02$, Cohen's d = 0.5. Thus, it can be concluded that Management students differ in their level of CQ depending on their degree of study, the opposite of the hypothesis. It turns out that it is the bachelor degree students who have a higher level of CQ than the master's degree students. Hypothesis H2b: Master's degree Management students have higher CQ than bachelor degree Management students was not confirmed.

To check whether MSG students of particular universities differ in the general level of CQ, a one-way analysis of variance was performed, which showed a statistically insignificant effect of the variable university $F(2, 53) = 0.39$, ni., eta2 = 0.01. Students of particular universities have a similar level of C: UE Wroclaw ($M = 98.56$; $SD = 15.12$), UE Krakow ($M = 95.83$; $SD = 20.39$), UE Poznan ($M = 93.55$; $SD = 12.72$). In conclusion, MSG students studying at the three universities considered have similar levels of cultural intelligence. Hypothesis H3a: No significant differences in the overall level of cultural intelligence between MSG students of the universities studied were confirmed.

A one-way analysis of variance was conducted to test whether there are differences between the MSG students of the three universities studied in terms of the level of the different dimensions that make up cultural intelligence, i.e. the metacognitive, cognitive, motivational and behavioral dimensions for the independent groups. This analysis showed:

- statistically insignificant effect of the variable university in the metacognitive dimension $F(2, 53) = 0.13$, ni., eta2 = 0.01. Students of individual universities have a similar level of IC in the metacognitive dimension: UE Wroclaw ($M = 20.93$; $SD = 4.16$), UE Krakow ($M = 20.94$; $SD = 5.18$), UE Poznan ($M = 20.18$; $SD = 2.86$),
- statistically insignificant effect of the variable university in the cognitive dimension $F(2, 53) = 0.3$, ni., eta2 = 0.01. Students of particular universities have a similar level of IC in the cognitive dimension: UE Wroclaw ($M = 26.15$; $SD = 4.66$), UE Krakow ($M = 25.11$; $SD = 6.52$), UE Poznan ($M = 26.55$; $SD = 4.91$),
- statistically insignificant effect of the variable university in the motivational dimension, $F(2, 53) = 1.3$, ni., eta2 = 0.05. Students of particular universities have a similar level of IC in the motivational dimension: UE Wroclaw ($M = 25, 89$; $SD = 5.45$), UE Krakow ($M = 26.22$; $SD = 5.65$), UE Poznan ($M = 22.91$; $SD = 6.77$),
- statistically insignificant effect of the variable university in the behavioral dimension $F(2, 53) = 0.5$, ni., eta2 = 0.02. Students of particular universities have a similar level of IC in the behavioral dimension UE Wroclaw ($M = 25.59$; $SD = 6.13$), UE Krakow ($M = 23.56$; $SD = 9.21$), UE Poznan ($M = 23.91$; $SD = 5.7$).

In conclusion, in each of the four dimensions, MSG students studying at the three universities considered have similar levels of the components of Cultural Intelligence. To test whether the Management students of the different universities differ in their level of CQ, a one-way analysis of variance was performed, which showed the effect of the university variable at the trend level $F(2,96) = 2.89$, $p < 0.07$, eta2 = 0.06. Post hoc comparisons using the Bonferroni test showed no differences between the students of the different universities. These differences were demonstrated using the NIR test. It showed that students of UE Wroclaw have the lowest level of CQ ($M = 92.38$; $SD = 17.99$) and differ on a statistically significant level ($p < 0.05$) from students of UE Poznan ($M = 100.63$; $SD = 14.42$), and from students of UE Krakow ($M = 100.94$; $SD = 17.32$) on the level of trend ($p < 0.08$). It was also investigated whether there were differences between the Management students of the universities studied in terms of the various dimensions that make up cultural intelligence. For this purpose, a one-way analysis of variance for independent groups was conducted. This analysis showed:

- statistically insignificant effect of the variable university in the metacognitive dimension $F(2, 96) = 2.07$, ni., eta2 = 0.04. Students of individual universities have a similar level of CQ in the metacognitive dimension: UE Wroclaw ($M = 20.69$; $SD = 3.89$), UE Krakow ($M = 21.29$; $SD = 4.19$), UE Poznan ($M = 22.54$; $SD = 3.01$),
- statistically insignificant effect of the variable university in the cognitive dimension $F(2, 96) = 2.19$, ni., eta2 = 0.04. Students of particular universities have a similar level of CQ in the cognitive dimension: UE Wroclaw ($M = 24.6$; $SD = 6.22$), UE Krakow ($M = 24.71$; $SD = 6.74$), UE Poznan ($M = 27.54$; $SD = 4.44$),
- statistically insignificant effect of the variable university in the motivational dimension $F(2, 96) = 2.0392$, ni., eta2 = 0.04. Students of particular universities have a similar level of CQ in the motivational dimension: UE Wroclaw ($M = 23.22$; $SD = 6.8$), UE Krakow ($M = 26.71$; $SD = 6.94$), UE Poznan ($M = 25.13$; $SD = 6.17$),
- statistically significant effect of the variable university on the behavioral dimension $F(2, 96) = 3.44$, $p < 0.04$, eta2 = 0.07. The level of CQ in the behavioral dimension: UE Wroclaw ($M = 23,86$; $SD = 6,49$), UE Krakow ($M = 28,24$; $SD = 5,74$), UE Poznan ($M = 25,42$; $SD = 5,37$).

In conclusion, in the behavioral dimension, differences were noted between the Management students of the three universities studied. In the other dimensions, students, regardless of university, have similar levels of the components of Cultural Intelligence. Hypothesis H3b stating that there are no significant differences in the overall level of Cultural Intelligence between the Management students of the studied universities was confirmed.

In order to verify the hypothesis that women have a higher level of cultural intelligence compared to men, an analysis was conducted using the t-test for independent samples. The results of this analysis showed no gender effect and thus no differences between women ($M = 94.97$; $SD = 17.2$) and men ($M = 98.43$; $SD = 16.56$) in terms of cultural intelligence $t(153) = 1.2$, ni., Cohen's d = 0.2. Hypothesis H4, stating that women, regardless of the university studied, show higher cultural intelligence than men, was not confirmed.

Discussion

The study results did not support the assumption that studying MSG translates into higher levels of CQ for students. This conclusion applies to each of the three universities studied. For an explanation of this state of affairs, one can refer to the study of Brancu et al. (2016), who found that globalization, new technologies and media have led to a relative homogenization of the CQ profile. As a result, the influence of these factors on the CQ level is stronger than the influence of the diversity of the field of study. Undoubtedly, open-mindedness is an essential moderator of course effectiveness. Individuals who are open to new experiences and tolerant of different cultural norms and practices benefit more from a training intervention than individuals who do not possess this personality trait (Fischer, 2011). This study omitted the influence of this factor, so it is not entirely clear how strongly it influenced the results.

What is puzzling is the lack of statistically significant differences in the overall level of CQ between bachelor degree and master's degree MSG students and the statistically significant differences in the level of CQ between bachelor degree and master's degree Management students. In the latter case, it appeared that it was the bachelor degree Management students who had higher CQ. Thus, it was erroneous to assume that an MSG student has richer international academic/professional experience that translates into a higher level of CQ. In the search for a possible explanation for the results obtained, it is worth noting two issues: the quality of the courses and the student's involvement in building relationships and developing international experience.

The lack of longitudinal studies makes it impossible to draw direct conclusions about the quality of the implemented courses. The author of the study, as an academic teacher with 20 years of experience, additionally acting as a tutor in the BIPS programme (Business Individual Study Programme) and supervisor of the Enactus scientific circle, has made some observations related to the process of engaging students in building relations and acquiring foreign experience. They show that students in the three-year Bachelor's program are more willing than students in the Master's program to get involved in various university projects to build networks, including international contacts. This includes not only activi-

ties in international student organizations, but also participation in foreign exchanges, which is of considerable importance in shaping CQ. Indeed, a literature analysis shows that student exchange programs help prepare individuals to work effectively in a culturally diverse environment (Azevedo, 2018), serve holistic development through exposure to the challenges of living and working in a foreign environment (Leung et al., 2008), and as a result foster an increase in students' CQ. Meanwhile, master's degree students tend to focus on active job search and alienate themselves from the university and the academic community, and thus do not take full advantage of the opportunity to develop CQ. There is another explanation for this result. Gannon and Poon (1997) observed that it is not the lack of international experience but this experience itself that makes older students more realistic about the possibility of conflicts and misunderstandings in intercultural interactions, which in turn translates into a lower willingness to effectively interact with people from different cultural backgrounds and, consequently, the motivational dimension of CQ. Similar conclusions were reached by Fischer (2011), who noted that a series of lectures on intercultural management fosters awareness of gaps in one's cultural knowledge. In turn, the shift from unconscious to conscious incompetence results in a decrease in self-reported cognitive and metacognitive dimensions of CQ.

The study was designed based on the assumption that since the three surveyed universities are public schools, similar in size, located in large cities, with similar curricula and offering equal opportunities for students to gain experience and develop cultural competencies, the level of CQ of students at these three universities will be similar. Meanwhile, while in the case of the MSG major, this assumption proved to be true, in the case of Management, students at one of the surveyed universities differ statistically significantly from the other two.

A comparative analysis was conducted to determine how the individual dimensions of CQ of Polish students compare to students from other European countries (Table 1). The results of the study were used in the analysis: Brancu et al. (2016), focusing on Romanian students, Bobanovic and Grzinic (2019) surveying Croatian students and Eisenberg et al. (2013), studying students from Austria. As can be seen, the CQ levels of students from Austria and Poland were higher than those from the other two countries. To indicate the reasons for this, more extensive research is needed in an international context. In each of the countries analyzed, the metacognitive dimension was the best developed. Students from Poland and Austria were found to have higher levels of this dimension than students from the other two universities. The motivational extent was ranked second in the studies of Brancu et al. (2016), Bobanovic and Grzinic (2019) and Eisenberg et al. (2013). This place of the motivational dimension was confirmed in the majors at MSG Wroclaw, MSG Krakow and Management Krakow. In the case of MSG Poznan, Management Wroclaw and Management Poznan, the behavioral dimension came second. The least developed CQ was, at most of the compared universities, in the cognitive dimension. Similar to the studies of Mahasneh et al. (2019), Al-Jarrah (2016), Engle and Nehrt (2012), Ward and Fischer (2008), no statistically significant differences were found in the cultural intelligence of Polish students by gender.

Table 1

Average values for particular dimensions of cultural intelligence – comparison of research results from Romania, Croatia, Austria and Poland

Dimensions of CQ	Poland*						Brancu L. et al. (2016), Romania**	Bobanovic M. K. and Grzinic J. (2019), Croatia***	Eisenberg J. et al. (2013), Austria****
	MSG Wroclaw	MSG Krakow	MSG Poznan	Management Wrocław	Management Krakow	Management Poznan			
Metacognitive	5.23	5.23	5.04	5.17	5.32	5.63	3.98	4.10	5.12
Cognitive	4.36	4.18	4.42	4.10	4.12	4.59	2.99	3.68	4.55
Motivational	5.18	5.24	4.58	4.64	5.34	5.03	4.00	4.00	5.56
Behavioral	5.12	4.71	4.78	4.77	5.65	5.08	3.47	3.61	4.93

Note.

* In order to ensure comparability of results, the arithmetic averages given earlier for individual dimensions of CQ of Polish students were divided by the number of items per dimension. For the metacognitive dimension it was 4, cognitive – 6, motivational – 5, behavioral – 5.

** Comparisons were made with students who completed courses in intercultural management; the result was rounded off to two decimal places.

*** Comparisons are made with results of management students who completed courses in intercultural management (post-test results).

**** To compare results of students who completed courses in intercultural management (post-test results).

Source: author's own work.

Conclusions

The level of cultural intelligence of students of public economics universities in Poland is relatively high compared to students from Croatia and Romania. The influence of the MSG major on the level of CQ was not confirmed. The correlation between the degree of study and the level of cultural intelligence differs depending on the field of study. At each of the three studied universities, no significant differences were found in the overall level of cultural intelligence between students of the studied majors. Although the subject of the research was not the quality of the courses, the lack of statistically significant differences between the CQ of MSG and Management students makes us reflect on the curriculum of the MSG course. This major is oriented towards the development of knowledge, attitudes and skills required for effective cultural interaction, so potentially also for the effect of CQ. Perhaps we are dealing here with the short internationalization of the MSG program at all the universities surveyed.

The literature analysis shows that higher education institutions can actively influence the development of students' CQ and thus express their social responsibility. However, it should be emphasized that the responsibility for the success of this process lies with both parties. If the student does not learn foreign languages, is not open to new experiences, and does not seek opportunities for intercultural interaction, the actions taken by universities may not be sufficient.

Acknowledgments

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