CULTURAL INTELLIGENCE: KEY INTELLIGENCE OF THE 21ST CENTURY? VALIDATION OF CQS INSTRUMENT

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ABSTRACT *Since no empirical research regarding cultural intelligence has yet been done in Croatia, the objective of this paper is to determine the basic metric characteristics of the* Cultural Intelligence Scale *– CQS by Van Dyne et al. (2008), as well as the applicability in research on a sample of N=144 subjects, namely, students attending schools of foreign languages from three different countries: Croatia, Ireland and Serbia. The reliability of the scale was verified using the Cronbach alpha coefficient, while the validity was assessed by factor analysis. The results of the study show the cultural intelligence of the subjects through four factor dimensions, like in the original instrument, but with different factor loadings. Thus, the* Cultural Intelligence Scale *is a reliable and valid instrument for measuring cultural intelligence with the possibility of practical application on different subject samples.*

KEYWORDS

CULTURAL INTELLIGENCE, DIMENSIONS OF CULTURAL INTELLIGENCE, INTERACTION, INTERCULTURALITY

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INTRODUCTION

In today's modern world, "*globalization* has become an integral part of every person's life, and diversity is its integral and unavoidable part. Although it may sometimes seem to us that globalization has made the world seem smaller, simpler, and according to some even *flat*" (Friedman, 2005, p. 20) in different aspects, increasing cultural diversity has created changes both in the life of individuals and organizations, making the world not so "flat" after all."

The number of studies focusing on elements that could contribute to improving intercultural encounters is relatively low (Gelfand et al., 2007), leaving an "important gap in our understanding of why some individuals are more effective than others in culturally diverse situations" (Ang et al., 2007, p. 335-336). The fact is that the quality level of cooperation and exchange between people depends also on the perception and understanding of feelings, thoughts and attitudes of people who do not belong to our culture (Drandić, 2016) and who, therefore, react, think and generate concepts and structures in a different way, according to their way of life, that is their culture.

As Gozzoli & Gazzaroli (2018) highlight, "one of the most common mistakes in our way of thinking and acting when facing something different is to disapprove or deny the diversity, starting from the tendency to judge a certain behavior in a particular situation through our own perspective and point of view. Most of the time, we tend not to pay attention to the relation between the culture(s) that surround(s) us and our own values", thoughts and attitudes, which can lead to conflicts in communication and establishing relations, misunderstandings and ineffectiveness.

However, the increased possibility of cultural interaction between different countries "can lead to cultural misunderstandings, tensions, and conflicts" (Ang et al., 2011, p. 82). The fact is that certain individuals can adapt more easily and faster to new cultures, while that may be quite more difficult for others. Therefore, increasing multicultural diversity requires a "better understanding of the factors that predict cultural intelligence development" (Alexandra, 2018, p. 62).

"The concept of *cultural intelligence* is a relatively new term in the field of interculturalism from the early 21st century" (Matsumoto & Hwang, 2013, p. 851). It has been very well described and elaborated in scientific papers mainly in the English language, and it is well known in management, organizations, and in social psychology (Ang et al., 2006; Bucker et al., 2015; Matsumoto & Hwang, 2013; Ward et al., 2009). According to Hu et al. (2019), cultural intelligence refers to the ability of individuals to deal effectively with organizational cultural differences. Unlike many, as stated by Ang et al. (2020, p. 823), "cultural competency models are developed inductively, while cultural intelligence (CQ) offers a theoretically derived and comprehensive framework based on the theory of multiple loci of intelligence". It is equally important, made to measure and develop patients, and all members' cultural intelligence in healthcare, from various cultural backgrounds (Barzykowski et al., 2019; Lee & Hong, 2021; Rahimaghaee & Mozdbar, 2017).

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

Educational institutions and schools are multicultural by nature (Bücker & Huber, 2015; Kistyanto et al., 2021; Robledo-Ardila et al., 2016). Aldhaheri (2017) explores the perception of school leaders regarding the key cultural intelligence impact on their ability to adapt their leadership style within a diverse work environment. Ramis and Liga (2010) show how it is essential to recognize the cultural intelligence of all students in order to connect learning in classrooms with the life outside school and thus provide meaning and context for school knowledge.

Earley and Ang (2003) base cultural intelligence on a multidimensional concept of intelligence (Sternberg & Detterman, 1986), and define it as "an individual's ability to function effectively in situations characterized by cultural diversity" (Ang & Van Dyne, 2008, p. 3). According to Earley and Ang (2003, p. 59), "*cultural intelligence* is a key dimension of intercultural competence required to work in international and multinational companies. They focus on cognitive styles that allow the individual to better navigate new situations and to solve everyday problems and activities." Namely, Early & Ang "found cultural intelligence on the theory of multiple intelligence" (Gardner, 1983) which denotes the individual ability to successfully "adapt to new cultural environments" and the ability to function easily and efficiently in "different cultural environments" and situations around the world (Earley & Ang, 2003; Earley & Mosakowski, 2004). Cultural intelligence is an ability of an individual acquired through experience and education, and is also based on some personality characteristics, such as extraversion, that is, readiness and openness to new culturally diverse interactions (Piršl, 2013).

There is only a restricted number of papers and research studies in the area of cultural intelligence in the Croatian scientific literature (Piršl, 2013), and this is one of the reasons why Earley & Ang's (2003) construction of cultural intelligence seems relevant for the Croatian context. Several recent and relevant studies in Croatia have focused on intercultural and transcultural competences that include cultural intelligence as well. In particular, Piršl (2018), Piršl et al. (2016), and Drandić (2016) emphasize interculturalism, intercultural sensitivity, teachers' and student's intercultural competence in the multi/intercultural context. Bašić (2014, p. 57) deals with the "intercultural component of communicative competence in the teaching of second and foreign language" and Intercultural ability considered more important than one's linguistic ability to survive in another culture. Filipović (2021) elaborates the significance of interculturalism for the education and competencies of teachers, especially religious education teachers with regard to intercultural and interreligious learning.

CULTURAL INTELLIGENCE

There are different reflections and approaches among researchers, theorists and practitioners in the determination of the concept, dimensions and importance of cultural intelligence in the personal and professional life of an individual. According to Earley and Ang (2003, p. 84), cultural intelligence "refers to an individual's ability to effectively behave and act during an encounter with a person of different cultural origin and thinking". Cultural

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

intelligence is an ability of an individual acquired through experience and education, and is also based on some personality characteristics, such as extraversion, that is, readiness and openness to new culturally diverse interactions (Piršl, 2013). Furthermore, we could characterize cultural intelligence as critical capacity stemming from meaningful personal, interpersonal and professional characteristics of an individual which is important for successful, active and effective action in a global multicultural world.

The dimensions of cultural intelligence are:

1. The **cognitive cultural intelligence** refers to the general knowledge that an individual has about culture (e.g., seeing and understanding the similarities and differences between cultures in its explicit and implicit elements). "This includes knowledge of the economic, legal and social order of different cultures and subcultures" (Triandis, 1994, in Ang et al., 2007, p. 345) and "fundamental knowledge of cultural values" (Hofstede, 2001, p. 9). According to Brislin et al. (2006, p. 45):"People with a high cognitive dimension find it easier to understand similarities and differences between cultures".

2. The **metacognitive cultural dimension** tells us about how to make sense of new intercultural experiences. It refers to the processes that an individual uses in order to understand and adopt new knowledge about a particular culture. Metacognition refers to a high degree of thinking that includes analyzing, assessing, controlling and pondering problems, making decisions and acting accordingly (Piršl, 2007, p. 281). This implies creating a mental strategy before meeting a person from a different cultural background and adapting the mental map to situations that are completely different, new and unknown. Thus, the metacognitive cultural dimension refers to the mental capacity of an individual not only in predicting and creating new mental patterns in culturally different environments, but also in the ability to apply the acquired intercultural experience to a new situation, thus making it more meaningful and richer.

3. The **motivational cultural dimension** refers to "the ability of an individual to direct energy and strength towards learning and effective functioning in cross-cultural situations" (Earley & Ang, 2003, p. 234). This includes personal experiences, interests and curiosity for establishing interaction with people of other cultural backgrounds. The motivational cultural dimension is reflected in the individual's ability to assess and critically analyze their own performance in verbal and nonverbal communication in diverse and different environments.

4. Earley and Ang (2003, p. 271), emphasize that the **"behavioral cultural dimension** is the ability of an individual to adapt to verbal and nonverbal behavior in accordance with the situation in culturally diverse environments". It includes flexible and appropriate verbal and non-verbal behavior and the ability to modify (change) it, depending on the specificity of the situation itself and/or interaction.

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

Examining and exploring cultural intelligence and dimensions contributes to a better understanding of their mutual relationships and conditionality, but also to the importance of the effect that they have on an individual in directing his or her thinking and acting in culturally different environments. The metacognitive and behavioral cultural dimension predict a certain activity.

According to the theoretical and research analysis of papers in the field of cultural intelligence in Croatia, there is no Croatian version of the Cultural Intelligence Scale that measures cultural intelligence. Therefore, the main goal of this study was to describe, translate and conduct a psychometric assessment of the Croatian version of the cultural intelligence scale for the first time.

RESEARCH METHODOLOGY

Research goal

The aim of the research related to dimensions of cultural intelligence was carried out on a sample of subjects attending foreign language schools in Croatia, Ireland and Serbia, to calculate and determine the basic metric characteristics of the Cultural Intelligence Scale – CQS by Van Dyne et al. (2008), that is, its validity and reliability and to assess its usefulness for further research.

Procedure

The *Cultural Intelligence Scale* – CQS for Croatia was translated into Croatian, the scale for Serbia was translated into Serbian, using standard translation–back translation procedures, while the scale for Ireland remained in English. Linguists were included in the translation process, both for Croatian and Serbian, while the scale for conducting research in Ireland remained linguistically unchanged. During the translation of the CQS variables, special attention was paid not only to linguistic aspects, but also to the cultural characteristics of the context in which the data was collected. Therefore, in order to verify the correct understanding of the content of the scale, a pilot survey was conducted on a sample of 10 Croatian-speaking respondents and 10 Serbian-speaking respondents. The data for the initial verification was collected through a paper version of the questionnaire and additional clarification by the researchers in the field, if considered necessary. The main goal of the pilot research was to test the questionnaire on students attending foreign language courses since the scale had been translated from English into Croatian and Serbian. The translated scale was used so that participants could better understand the terminology and the description of the variables. Considering different professional backgrounds, experience and expertise of participants, in this part of the research the Delphi approach was used (Mead & Moseley, 2001). The answers were then analyzed and used to formulate a new questionnaire in which the content of the variables was adapted to suit the Croatian and the Serbian language. The questionnaire was sent to participants and the whole procedure was repeated twice until the linguistic understanding of all twenty variables was complete.

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

After the linguistic testing of the variables had been implemented, group research was conducted during 2019 in three language schools in three countries: Croatia, Serbia and Ireland. The time required to complete the questionnaire was about 30-40 minutes. When conducting the research, ethical standards were observed: all participants agreed to fill out the questionnaire, participation in the research was on a voluntary basis and it was anonymous. The subjects were given written instructions on how to fill out the questionnaire and an explanation that the data would be used exclusively for scientific purposes.

Instrument

For the purposes of this research, as already noted, the *Cultural Intelligence Scale* – CQS[1] instrument by Van Dyne et al. (2008) was used, with 20 claims measuring the cultural intelligence of the respondents through four dimensions of cultural intelligence: metacognitive, cognitive, motivational, and behavioral dimension. The questionnaire consisted of two parts: the first part collected general data relating to the sociodemographic characteristics of the subjects (gender, age, years of work experience, professional qualifications, travelling abroad and foreign language used in communication). The second part of the questionnaire with four subscales had three versions: one for the respondents in Croatia (CQS-1/Croatia), the second for the respondents in Ireland (CQS-2/Ireland) and the third for the respondents in Serbia (CQS-3/Serbia) each with 20 claims from the original instrument. The responses were measured on a 5-point Likert-scale, ranging from 1 (extremely disagree) to 5 (extremely agree). Although the original instrument grouped the responses into 7 levels (1 – extremely disagree to 7 – extremely agree), for easier data processing, we opted for a 5-point scale where we merged points 1 and 2 into 1, point 3 became point 2, point 4 became point 3, point 5 became point 4, and points 6 and 7 were merged and became point 5 in our instrument. The collected data was processed using the SPSS software package, v21, by conducting descriptive analysis in order to establish the distribution of frequencies in absolute values and percentages. The total result was obtained on the basis of the arithmetic mean of all particles and it ranged theoretically from 1 to 5, and the results for the subsects were obtained on the basis of the arithmetic mean of the selected particles and ranged theoretically from 1 to 5. Cronbach alpha reliability coefficients were calculated for the entire instrument as well as for the subscales. We measured the adequacy of the data for factor analysis using the Kaiser-Meyer-Olkin (KMO) and Bartlett test.

According to Cohen et al. (2007) and Petz (2007) the basic metric characteristics of each instrument used in research are the following: validity, reliability, objectivity, discrimination level, and adequacy. This study examined the validity of the instrument used to determine whether it measured, and to what degree it measured exactly what we wanted it to measure. We assessed its reliability by relying on statistical procedures.

[1] We have not sought approval from the authors for the translation of the scale or for its use, as the scale of cultural intelligence is available in most theoretical and empirical research papers worldwide and similar scale validations have already been carried out (see Barzykowski et al., 2019; Gozolli & Gazarolli, 2018).

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

Research sample

The study was conducted on a sample of 144 language school students from three countries: Croatia, Ireland and Serbia (Table 1). Of the total number of respondents in the survey, 54 (37.5%) were male and 90 (62.5%) were women. The age of the majority of subjects, 79 of them (55.0%) was between 31 and 50 years; most of them, 63 43.8%) had more than 16 years of work experience, and two thirds of respondents had a university degree. As for the travelling abroad, we received the data that 93 respondents (64.6%) stayed abroad for a certain period. Most of the respondents, 67 (46.5%) used English language, and only one (0.7%) language school student could communicate in French.

RESULTS AND DISCUSSION

Descriptive analysis of the data obtained through the questionnaire was conducted for the distribution of frequencies in absolute values and percentages, and factor analysis was performed through several steps in order to determine the dimensions of cultural intelligence: assessment of suitability for factor analysis; determination of initial results for factor extraction; determination of the factor structure matrix, factor rotation; identification of factor matrices, as well as interpretation and denomination of factors. In order to measure the reliability of the measurement scale, the values of the Cronbach alpha coefficient were calculated (Cronbach, 1951, 2004; Cronbach & Meehl, 1955). According to Milas (2005), Mejovšek (2003), Hinkin, Tracey and Enz (1997) there is no single procedure for instrument review, but the instrument should have satisfactory reliability if the measured coefficient α is greater than or equal to .70. The obtained coefficient value for the entire Cultural Intelligence Scale – CQS is α = .893, which indicates extremely good reliability of the Cultural Intelligence Scale and its adequacy for the subject sample, that is, language school students.

Reliability of the measuring instrument

The reliability of internal consistency coefficients obtained for individual cultural intelligence elements in the questionnaire (CQS scale) (Table 1) ranges from very good value (α = .826) for Metacognitive CQ and Cognitive CQ (α = .815), good value for Motivational CQ (α = .724), to extremely good value (α = .870) for Behavioral CQ. According to the usual criteria for Cronbach alpha reliability coefficient (DeVellis, 2012), it can be concluded that the reliability of the CQS scale for research of the said population is extremely good.

Table 1. **Cronbach's Alpha coefficient values for the entire scale and individual subscales**

	Reliability Statistics		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
CQS scale	.893	.896	20
Metacognitive CQ	.826	.828	4

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

Cognitive CQ	.815	.820	6
Motivational CQ	.724	.726	4
Behavioral CQ	.870	.870	5

Table 2 shows the correlation degree of each item with the overall result. All the values shown are above .4 which indicates that all items actually measure what the entire scale measures, that is, the intercultural intelligence of the subjects. In order to better evaluate the reliability of the instrument, the alpha coefficient for each individual claim within the scale was calculated. If one of the coefficients was higher than the total coefficient for the whole scale, this claim would be omitted as it reduces the reliability of the instrument. We found that the alpha coefficient range for all claims in the scale was from .884 to .893. We established that Cronbach's alpha coefficient was not higher than .893 if we omitted any of the claims from the scale. We can therefore conclude that the omission of any of the claims would not affect the change in the reliability of the Cultural Intelligence Scale.

Table 2. **Individual Cronbach alpha coefficient calculated values for omitted claims**

Item-Total Statistics					
Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MC1	6607	124.806	.579	.521	.887
MC2	66.18	124.401	.604	.504	.886
MC3	66.25	124.077	.603	.610	.886
MC4	66.43	123.058	.583	.615	.886
COG1	67.24	122.224	.492	.553	.889
COG2	67.03	125.929	.472	.429	.893
COG3	66.75	121.559	.648	.641	.885
COG4	67.10	119.185	.664	.576	.884
COG5	66.96	123.649	.531	.521	.888
COG6	67.28	124.751	.406	.393	.892
MOT1	66.03	125.055	.441	.526	.891
MOT2	66.14	124.778	.506	.571	.889
MOT3	66.29	126.544	.407	.465	.891
MOT4	66.43	125.016	.536	.421	.888
MOT5	66.28	126.107	.457	.422	.890
BEH1	66.58	122.538	.549	.558	.887
BEH2	66.82	124.205	.490	.524	.889
BEH3	66.58	122.441	.565	.582	.887
BEH4	66.65	122.748	.503	.742	.889
BEH5	66.88	124.572	.436	.700	.891

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

Validity of the measuring instrument

Factor analysis was conducted upon all 20 claims in order to calculate the initial results on the basis of which factors were extracted, that is, we obtained inherent values, percentages and cumulants of variance for each individual factor. In addition, we assessed data adequacy for factor analysis (Brown, 2006; Curran, et al., 1996) using the Kaiser-Meyer-Olkin test (KMO) and the Bartlett Test (Kaiser, 1974). The results of the procedure (Table 3) in our example indicate that the KMO for the entire scale is .845 and Bartlett's indicator for statistical significance of correlation matrix $\chi^2 = 1384.554$ with 190 degrees of freedom and a significance level of 1% confirms the adequacy of data for factor analysis. The results also indicate that all individual KMO measures for each subscale are satisfactory. Both tests assess the justification of factor analysis.

Table 3. **Applicability of factor analysis data (KMO and Bartlett's Test)**

KMO and Bartlett's Test				
	CQS	Croatia	Ireland	Serbia
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.845	.748	.497	.630
Bartlett's Test of Sphericity				
Approx. Chi-Square	1384.554	1011.223	392.723	562.487
Df	190	190	190	190
Sig.	.000	.000	.000	.000

From the results (Table 4), it is evident that the structure of factor loadings is divided into four factors with values greater than one. The four components cumulatively explain the 61.349% variance: the first 34.327%, the second 12.834%, the third 7.931%, and the fourth 6.257% of total variance.

Table 4. **Main components analysis**

Total Variance Explained							
Comp.	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.865	34.327	34.327	6.865	34.327	34.327	3.779
2	2.567	12.834	47.162	2.567	12.834	47.162	4.064
3	1.586	7.931	55.092	1.586	7.931	55.092	4.000
4	1.251	6.257	61.349	1.251	6.257	61.349	4.316
5	.924	4.620	65.969				
6	.877	4.385	70.355				

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

7	.813	4.066	74.421
8	.737	3.683	78.103
9	.616	3.079	81.183
10	.556	2.779	83.962
11	.520	2.599	86.561
12	.444	2.219	88.780
13	.406	2.029	90.809
14	.356	1.778	92.586
15	.329	1.644	94.230
16	.285	1.423	95.654
17	.272	1.362	97.015
18	.244	1.220	98.235
19	.205	1.024	99.259
20	.148	.741	100.000

Based on the Scree plot (line plot of the eigenvalues of factors), of the criteria based on the Cattell diagram, a break between the fourth and the fifth factor was observed, which, in our case, confirms the extraction of four factors, the inherent values of which are separated from the inherent values of the remaining factors and explain a higher percentage of the total value than the remaining factors.

For easier interpretation of results, Oblimin with Kaiser Normalization factor rotation was applied to all four components, which resulted in the simplification of columns in the factor structure matrix, that is, in the simplification of the factors (Table 5). Factor loading structure after applying rotation provides a better factor interpretation than the initial factor matrix.

The structure of the first factor called *Metacognitive cultural intelligence* has a loading range of four particles, moving in an orthogonal projection of .556 /MC1 "I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds" to .747 /MC3 "I am conscious of the cultural knowledge I apply to cross-cultural interactions". Another factor we extracted, with a range of six particles with factor loading from .495 /COG2 "I know the rules (e.g., vocabulary, grammar) of other languages" to .751 /COG3 "I know the cultural values and religious beliefs of other cultures", is called *Cognitive cultural intelligence*. The third factor named *Motivational cultural intelligence* describes five particles ranging from .565 /MOT5 "I am confident that I can get accustomed to the shopping conditions in a different culture" to .772 factor loadings /MOT2 "I am confident that I can socialize with locals in a culture that is unfamiliar to me". The orthogonal projection of the fourth factor, called Behavioral cultural intelligence ranges from .634 /BEH1 "I change my verbal behavior (e.g., accent, tones) when a cross-cultural interaction requires it" to .880 /BEH5 "I alter my facial expressions when a cross-cultural interaction requires it" and is defined by five particles.

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

Each of the four extracted factors is well described by the particles that define them. We also noticed that in each factor the same particles that describe factors from the original scale were extracted, but in our study, they were distributed differently within factors according to their loadings than in the order of particles in the original scale.

Table 5. **Structure of factor dimensions**

Items	CQ Factor
MC3 I am conscious of the cultural knowledge I apply to cross-cultural interactions.	**.747**
MC4 I check the accuracy of my cultural knowledge as I interact with people from different cultures.	.660
MC2 I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	.584
MC1 I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	.556
COG3 I know the cultural values and religious beliefs of other cultures.	**.751**
COG6 I know the rules for expressing non-verbal behaviors in other cultures.	.741
COG1 I know the legal and economic systems of other cultures.	.710
COG4 I know the marriage systems of other cultures.	.570
COG5 I know the arts and crafts of other cultures.	.564
COG2 I know the rules (e.g., vocabulary, grammar) of other languages.	.495
MOT2 I am confident that I can socialize with locals in a culture that is unfamiliar to me.	**.772**
MOT3 I am sure I can deal with the stresses of adjusting to a culture that is new to me.	.769
MOT3 I am sure I can deal with the stresses of adjusting to a culture that is new to me.	.621
MOT4 I enjoy living in cultures that are unfamiliar to me.	.577
MOT5 I am confident that I can get accustomed to the shopping conditions in a different culture.	.565
BEH5 I alter my facial expressions when a cross-cultural interaction requires it.	**.890**
BEH4 I change my non-verbal behavior when a cross-cultural situation requires it.	.852
BEH2 I use pause and silence differently to suit different cross-cultural situations.	.779
BEH3 I vary the rate of my speaking when a cross-cultural situation requires it.	.656
BEH1 I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.	.634

CQ Factor: MC – Metacognitive, COG – Cognitive, MOT – Motivational, BEH – Behavioral
Source: Van Dyne et al., 2008

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

CONCLUSION

The aim of this paper was to carry out a factor analysis to determine the adequacy of the Cultural Intelligence Scale on a sample of subjects from three countries (Croatia, Ireland and Serbia), in order to extract, that is, define the dimensions of cultural intelligence. The responses of 144 students attending language schools were used to conduct the study. After processing the data and obtaining the results of factor analysis, the research hypothesis was confirmed. Thus, the Cultural Intelligence Scale is a reliable and valid instrument for measuring cultural intelligence with the possibility of practical application on different subject samples. The reliability of the scale was evaluated using the Cronbach alpha coefficient, and the validity using factor analysis. The results of the research that we obtained in our example show that the tested instrument is reliable ($\alpha = .890$) and that the omission of any of the claims would not affect the increase in the reliability of the scale. In addition, by applying factor analysis, we determined the validity of the scale using the Bartlett sphericity test and the Kaiser-Meyer-Olkin (KMO) sample adequacy indicator. The KMO for the entire scale is .845 and Bartlett's indicator for statistical significance of correlation matrix $\chi^2 = 1384.554$ with 190 degrees of freedom and a significance level of 1% confirms the adequacy of data for factor analysis. Although this study employed the method of principal axis factoring and rotated the latent variables by employing Varimax with Kaiser normalization, it extracted the same four factors underlying the Cultural Intelligence Scale (CQS) as did Van Dyne et al. (2008). Furthermore, the cognitive and behavioral CQ have the highest loadings as the first two factors extracted in this study, implying the priority of knowing and ability of an individual to adapt to verbal and nonverbal behavior in accordance with the situation in culturally diverse environments. In Van Dyne et al. (2008) study, however, metacognitive CQ is extracted as the first whereas it occupies the position of the fourth component in the present study. Based on Ang et al. (2009, p. 514-515), "individuals with high cognitive CQ can anticipate and understand similarities and differences across cultural situations, while behavioral CQ is the capability to exhibit situationally appropriate behaviors from a broad repertoire of verbal and nonverbal behaviors, such as being able to exhibit culturally appropriate words, tones, gestures, and facial expressions".

Since this study included respondents aged 31 to 50 with work experience, our goal was also to check the metric characteristics of the Cultural Intelligence Scale on a sample of young people (students) in the Republic of Croatia and determine whether the scale is also applicable to this population.

Despite the possible limitations, the presented scale should be considered important and reliable and used to assess cultural intelligence not only among the student population, teachers, but also in other fields, for instance, in medicine, management, etc. The scale has satisfactory metric properties, high reliability and its factor structure approaches the original one. Most importantly, this study established that we identified metacognitive, cognitive, motivational and behavioral dimensions, key dimensions of cultural intelligence by factor analysis. Therefore, it can be stated that these factors

ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.13.25.5 / SUBMITTED: 18.5.2021.

contribute to the development of cultural intelligence and can help in different areas of professional competence in which the development of cultural intelligence is necessary to improve the quality of work, behavior, response and communication.

Finally, it can be concluded that this validation of the scale can contribute to a better theoretical-empirical understanding of the problem of cultural intelligence in the Croatian context and, more broadly, to the development of a deeper understanding of diversity and diversity management in various organizations and institutions.

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KULTURALNA INTELIGENCIJA: KLJUČNA INTELIGENCIJA 21. STOLJEĆA? VALIDACIJA CQS INSTRUMENTA

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SAŽETAK *Kako u Hrvatskoj nisu provedena empirijska istraživanja o kulturnoj inteligenciji, cilj ovoga rada bio je utvrditi temeljne metrijske karakteristike instrumenta* Cultural Intelligence Scale – *CQS (Skala kulturalne inteligencije) autora Van Dyne, L., Ang, S. i Koh, C. (2008), i njegovu prikladnost za istraživanje na prigodnom uzorku od N=144 ispitanika iz tri države: Hrvatske, Irske i Srbije, polaznika škola stranih jezika. Pouzdanost ljestvice provjerena je primjenom Cronbach alfa koeficijenta, a valjanost je testirana faktorskom analizom. Rezultati istraživanja pokazuju kulturnu inteligenciju ispitanika kroz četiri izlučene faktorske dimenzije jednako kao u originalnom instrumentu, ali različitih faktorskih opterećenja. Dakle,* Cultural Intelligence Scale *pouzdan je i valjan instrument za mjerenje kulturalne inteligencije s velikom mogućnošću praktične primjene na različitim uzorcima ispitanika.*

KLJUČNE RIJEČI

KULTURNA INTELIGENCIJA, DIMENZIJE KULTURNE INTELIGENCIJE, INTERAKCIJA, INTERKULTURALNOST

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