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Assessing Cultural Intelligence and Its Antecedents in the Portuguese Higher Education Context

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Abstract: The concept of cultural intelligence has been the object of increasing attention from the scientific community due to its importance in a globalized world. To fulfil their mission, higher education institutions need individuals capable of effectively interacting with others who come from different cultural backgrounds. This study analyzes the level of cultural intelligence and its background in a Portuguese engineering higher education institution. This study used a cultural intelligence scale and applied it to a sample of 445 participants. The results show that individuals in this Portuguese institution have an interesting level of awareness of others' cultural preferences. However, particular attention should be paid to improving the outcome of the cognitive dimension. The results show the potential of international experiences and activities that foster cultural exposure. Consequently, the managers of institutions should make efforts to promote Erasmus programs or similar internships abroad. In addition, they should promote activities that foster multicultural contact, whether extracurricular activities or multicultural clubs or associations, meetings, lectures or classes with appropriate pedagogical methodologies, for example, experiential or collaborative teaching.

Keywords: cultural intelligence; higher education; international experience; cultural exposure; cultural intelligence scale; Portugal

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1. Introduction

Throughout human history, there has always been economic, social or political interaction between people of different cultures. However, it is in the 20th and 21st centuries that globalization has become a reality facing trade and financial transactions, capital and investment movements, the migration and movement of people and the dissemination of knowledge [1].

In this context, higher education plays a key role. Higher education institutions must be capable of discovering new knowledge, developing innovative applications of these discoveries and transferring the innovation produced to the market, based on entrepreneurial activities. As a result, higher education institutions are increasingly challenged by the forces that characterize the global economy: hyper-competitive markets, disruptive technologies, demographic changes and growing cultural and ethnic diversity [2].

To fulfil their mission in a global world, higher education institutions need to adopt pedagogical practices that encourage the development of the competences that students need to be competitive in the labor market. There is a growing need for cross-cultural education that prepares students for a multicultural and complex world [3]. Students need to be able to work not only with a range of technologies, and know how to synthesize and apply information, but also to think creatively and critically. Students also need to have the ability to communicate and collaborate effectively, mainly in diverse and multicultural environments [4].

Globalization is drastically changing the culture of higher education; however, the nature of higher education is traditionally one of cooperation rather than competition [5], so it also responds to globalization by accepting internationalization through the integration of an international, intercultural or global dimension in its mission [6]. As a consequence, higher education institutions (HEI) are placing increasing emphasis on international experiences for students and teachers.

However, the pressure on institutions to become increasingly competitive is unavoidable. One of the most visible expressions of this is the growing efforts to recruit foreign students, often as an extra funding source [7]. This effort has significantly increased the number of foreign students in higher education institutions [8].

Students and teachers' mobility and the presence of foreign students on campus creates new challenges. Cultural adaptation is a complex process, referring "to the possible acceptance degree of immigrants for a new cultural context, ranging from complete adoption to rejection of the receiving society's values" [9] (p.129). Nowadays, HEIs require individuals who can interact effectively with individuals from different cultural backgrounds.

Many questions arise in this context: are institutions preparing their students for the global labor market? Are students really exposed to different cultures? Are students and teachers prepared for this multicultural and intercultural environment?

The concept of cultural intelligence or cultural quotient (CQ) has shown enormous potential to help explain intercultural effectiveness, even if this potential is still in the developmental stage [10,11].

Several authors argue that CQ is necessary for adaptation in a new cultural environment and that those who thrive in intercultural environments exhibit high levels of CQ [12–14]. CQ is perceived as the capability of an individual to function effectively in culturally diverse settings [15].

Based on a comprehensive literature review and recent review works on CQ [16–19], it is possible to perceive that in many countries, research on this subject has evolved in recent years, but in Portugal, it is practically non-existent. According to Kirkman et al. [20], national cultural values are related to individual behaviors and attitudes and organizational behaviors. Alon et al. [21] also reported that cultural intelligence varies across the countries under study, which suggests that a country may be more or less likely to interact effectively with individuals from different cultural backgrounds.

There are also few studies focusing on CQ assessment level in HEI members, and no studies were found that discriminate assessment for students and staff. In HEIs, there are two groups of different natures: the staff and the students. In general, the international experience and cultural exposure—both due to age and the characteristics of the profession—are higher among staff than among students. This argument indicates the possibility of differences in the levels of cultural intelligence between the two groups. Overall, most of the published works focus on social study groups in the business sector or expatriates [22].

An additional and fundamental question to understanding CQ is the study of how this capability can be developed. The antecedents of CQ can be individual or situational in nature. Previous studies have shown that factors such as prior international experience, personality traits and skills, formal training programs or experiential learning programs are possible antecedents of CQ [10,23–26]. In this context, HEIs play an important role in promoting levels of CQ, especially in preparing students for the labor market.

This study has two main objectives. The first is to contribute to the advancement of knowledge of CQ in the higher education sector, more specifically, in a Portuguese engineering HEI. The second is to contribute to increasing knowledge of the process through which CQ can be developed. These contributions help us to reach a deeper understanding of the tools to improve CQ, improving cross-cultural adjustment and performance, increasing group acceptance, resolving adaptation problems and promoting career success and work performance. The object of this study is members of a Portuguese HEI.

2. Literature Review

2.1. Cultural Intelligence: The Concept

The concept of culture is defined in different ways by different authors. One of the most disseminated definitions is that given by Hofstede [27, p.3]: "Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others". Culture is a collective phenomenon, meaning that each person belongs to a nation, a group and/or an organization [27].

The concept of cultural intelligence (CQ) was introduced in 2002, and the definition established by Dyne et al. [28] (p.3) "the capability of an individual to function effectively in situations characterized by cultural diversity" is the most frequently adopted by the research community [16]. In the context of globalization and internationalization, HEIs need to address cultural diversity and learn to value other cultures and respect their opinions, i.e., they need skills for cross-cultural adaptation.

Derived from this definition, the CQ model is an approach that conceptualizes cross-cultural adaptation as a multidimensional process consisting of metacognitive, cognitive, motivational and behavioral dimensions [13,15,29]. It is a multidimensional concept that targets situations with intercultural interactions arising from differences in race, ethnicity and nationality [15]. It can be affirmed that CQ is not a personality trait, but is more a competence [30]. We can also consider CQ as a type of intelligence that explains success in diverse cultural contexts [21,31]. In other words, CQ is a distinctive intelligence for a specific kind of adaptation [13] and should be distinguished from other conceptualization of intelligence, such as emotional intelligence and social intelligence [32].

Metacognitive *CQ* is how a person makes sense of intercultural experiences. It reflects the processes individuals use to acquire and understand cultural knowledge. It occurs when people make judgments about their own thought processes and those of others. This includes strategizing before an intercultural encounter, checking assumptions during an encounter and adjusting mental maps when actual experiences differ from expectations [30,33].

Cognitive *CQ* is a person's understanding of how cultures are similar and how cultures are different. It reflects general knowledge structures and mental maps about cultures. It includes knowledge about economic and legal systems, norms for social interaction, religious beliefs, aesthetic values and language in different cultures [30,31].

Motivational *CQ* is a person's interest in experiencing other cultures and interacting with people from different cultures. Motivational CQ is the magnitude and direction of energy applied to learning about and functioning in cross-cultural situations. It includes the intrinsic value people place on culturally diverse interactions as well as their sense of confidence that they can function effectively in settings characterized by cultural diversity [15,30].

Behavioral *CQ* is a person's capability to adapt verbal and nonverbal behavior so it is appropriate for different cultures. It includes having a flexible repertoire of behavioral responses that are appropriate in a variety of situations and having the capability to modify both verbal and nonverbal behavior based on those involved in a specific interaction or in a setting [15,34].

To measure CQ, Dyne, Ang and Koh [33] developed a four-dimensional construct. To date, empirical research has focused on the dimensions of CQ and has been supported by the 20-item Cultural Intelligence Scale (CQS) [17] developed by Dyne et al. [28,33]. The published studies reveal considerable variety in the countries where the scale has been applied, as well as in the selected groups and organizations.

The scale allows the assessment of the CQ global level, which is fundamental to help assess the need to design intervention policies in the community. However, it also allows the assessment of each dimension level, which helps to identify more specifically which characteristics require greater investment to increase the CQ level.

This area of knowledge has evolved in the last two decades, with studies on the relationship between the antecedents and levels of CQ, the CQ development process and its dimensions and the identification of direct and indirect effects, as well as how it has

been used as a mediation variable in the study of the relationship between antecedents and effects [16–18].

In the context of higher education, several training instruments have been studied and found to influence the different dimensions of CQ. For example, classroom training complemented with simulation games and case studies showed that the level of CQ improved following the participation in training sessions and that contact intensity is related to the positive influence of improved CQ on the performance on individual tasks [35].

Recently, Hong et al. [36] demonstrated that the application of these CQ promotion tools does not lead to a proportional increase using the same activities over time. This implies the need for HEIs to invest in new, increasingly sophisticated educational programs that contribute in a continuous and lasting way to the promotion of the CQ level of its members.

Most of the published studies have the individual level as their object of study. Interest in the study of the organizational level has recently begun to emerge. Organizational CQ is the ability of an organization to function effectively in a multicultural environment [37]. The authors argue that the organizational CQ concept is related to the ability of organizations to effectively adapt to changes in the environment, in a context with increasingly ambiguous characteristics and that is increasingly culturally diverse.

2.2. Cultural Intelligence in Higher Education Institutions

According to Coleman et al. [38] (p.28), "the promotion of cultural awareness and the increase of cultural sensitivity are primary facets of contemporary higher educational settings". The growing diversity of cultures present in the various spaces in which higher education takes place—classrooms, laboratories or student support services—makes it imperative to know the CQ level of the participants, students and staff. It is this knowledge that makes it possible to design strategies to improve the participants' CQ level and, consequently, improve the teaching process outcomes.

As stated previously, the most-used construct in the literature to assess CQ level is the Cultural Intelligence Scale (CQS). The validity of the first construct of CQ was studied through six different case studies involving more than 1500 undergraduate students [28]. The authors found such a construct to be stable across samples of students, time and countries, hence providing strong evidence of its robustness.

Since then, several authors have shown interest in validating the construct in languages other than English, such as Persian [39], Spanish [40] or in the Indian context [41]. The topic has continued to interest the research community, which has been validating the scale in several other languages such as Polish [42], Korean [43], German [44], Romanian, Turkish, Icelandic [45] and Croatian [46].

Existing research has shown that this scale is appropriate for the Portuguese language [47] and for social groups in HEIs [25,33,39,48].

For an institution to work effectively in a multicultural environment, it needs to develop its organizational effectiveness from the point of view of cultural intelligence, and for this, its main actors, students and staff, must develop their levels of CQ [37]. All the staff members of an institution need to be prepared to encounter and understand students from different cultures. For the teachers, this responsibility is even greater since they are the fundamental actors in preparing students to live and work in a global society.

Regarding the students, the results published in the literature indicate some inconsistency. In one of the first studies, based on a sample of students from a public university in Singapore, Ang et al. [49] concluded that the dimension that had a higher value was the metacognitive, while the cognitive dimension was the one that had a lower value. This result was recently confirmed in a study with students from Taiwanese institutions [50]. Şenel [22], with a sample of students from a Turkish institution, found higher values for the cognitive dimension in relation to the metacognitive dimension. Beneroso and Alosaimi [51], in a study with a sample of engineering students in the UK, concluded that the motivational dimension was the one with the highest value, in contradiction with

the previous study. However, it was confirmed that the dimension with the lowest value was cognitive. In another study with students from New Zealand, Australia and Japan, Alexander et al. [52] confirmed these results.

Similarly, studies of the effect of students' sociodemographic characteristics on CQ reveal inconsistent results. While Beneroso and Alosaimi [51] concluded that gender influenced the behavioral dimension, Tu et al. [50] and Wang et al. [53] inferred that gender did not influence any of the CQ dimensions. In contrast, Şenel [22] found significant differences in the metacognitive dimension.

Regarding the staff, there are few studies published in the literature and, again, the results are not consistent. In a study at an institution in Abu Dhabi by Al Dhaheri [54], the results obtained indicate a high level of CQ, and the cognitive dimension is the one with the lowest value. In contrast, Yüksel and Ereş [55], in a study involving the staff of a Turkish institution, found a low level of CQ and confirmed that the dimension that presented a lower value was the cognitive dimension.

These studies—obtained in different institutions of higher education and in different countries—show different results, which demonstrates the need for developing more studies, particularly in countries that had few studies.

An additional issue is the need to understand whether there is a need to intervene in an HEI in a differentiated way to increase student and staff CQ. According to the argument in Section 2.3, international experiences and cultural exposure influence CQ level. Due to the nature of the professional activity and the opportunities taken with age, it is expected that staff will have different level of CQ than students. The international nature of the professional activity of higher education institution staff, despite always having had an internationalization component, is nowadays very intense, whether through mobility initiatives, research activity or the growing presence of international students in classrooms. Only one study developed in Jordan assessed whether there were differences between these two groups [56].

More specifically, this study aims to answer the following questions in relation to a Portuguese HEI:

Question 1 (RQ1): What is the level of student and staff CQ and the level of its dimensions?

Question 2 (RQ2): Are there significant differences between staff and students´ level of CQ and its dimensions?

2.3. Antecedents of Cultural Intelligence

Despite the increase in publication of studies on CQ in recent years, it can be said that research into the antecedents of CQ is still at an early stage. However, it is already possible to identify in the available studies an emerging set of CQ predictors. [21,24].

According to Ang et al. [28], CQ is malleable and can be developed over time. Several authors have developed work on this subject. The study of the antecedents of CQ has essentially been carried out in three broad categories: experience and cultural exposure, cross-cultural training and experiential learning and individual traits and capabilities [16–18,57].

The way in which different authors have studied the effect of international experience and cultural exposure is very varied, but is mainly related to international work or non-work experience (leisure), international life experience and social contact. For instance, Chao et al. [58] found that cross-cultural adjustment experiences, such as student exchange programs, particularly in the social domain, play an important role in the development of CQ.

While in some studies, international experience was found to be related to all CQ dimensions, in others, it was found to be related to only some of its dimensions [26,48,59,60]. The literature shows that studies on intercultural experience often distinguish between experiences acquired in work-related or non-work situations.

One of the first studies related to this distinction was developed by Tarique and Takeuchi [61], who found evidence that non-work travel abroad contributed to increasing CQ level.

Later, Moon et al. [62] found that experience in non-work situations was a stronger predictor than in work situations. This finding was based on the fact that non-work experience is related to all dimensions of CQ, whereas work experience influenced only the metacognitive and cognitive dimensions. The duration of intercultural experience was studied by Engle and Crowne [59], who confirmed that with simple foreign travel preparation, trips of a short duration (between one and two weeks) are sufficient to increase the level of CQ.

Other studies [15,63] have demonstrated that CQ is related to cultural exposure, and emphasize the importance of continuing to identify concrete cultural exposure activities [26].

Cultural exposure is a complex concept to define because there are various degrees of exposure. In addition to understanding whether or not there is exposure to other cultures, it is also necessary to understand the breadth and depth of that exposure [12,64]. Crowne [64] argues that breadth can be studied in terms of the number of different countries visited and depth in terms of the different type of experiences.

Cultural exposure is, therefore, multidimensional and can relate to the amount of time spent in contact with other cultures, the amount of contact with different cultures or the way in which this contact takes place [65]. Contact with other cultures can happen in different situations without having to leave the country, for example, in the family environment, in groups of friends in the place of residence, in voluntary work groups or in the classroom.

Lin and Shen [24] studied the effect of formal and non-formal contact among students of different nationalities and concluded that non-formal contact was related to CQ, especially the motivational and behavioral dimensions.

It was found that certain learning methodologies and training programs enhance the development of CQ and its dimensions [17,18]. The experiential teaching methodology seems to be one of those that lead to better results [66,67]. MacNab [3] applied the methodology to management students and found that although all dimensions were significantly related, the metacognitive and behavioral dimensions were the most significantly related.

Kurpis and Hunter [25] studied the combined effect of intercultural experience and experiential learning, comparing domestic and international students, and concluded that in this context, international students only scored better on the cognitive dimension.

Other antecedents of cultural intelligence have been studied, such as skills in languages other than one's mother tongue [68]. Studies conclude that this competence is related to CQ [69] and all its dimensions [70].

The developed studies demonstrate the need for more research on this topic, namely the study of the impact of international experiences and the impact of activities that include exposure to other cultures without traveling abroad, especially in the context of HEIs [51]. For this, the following set of questions was defined:

Question 3 (RQ3): Are the international experiences related to CQ level and its dimensions?

Question 4 (RQ4): Are the cultural exposures related to CQ level and its dimensions?

3. Materials and Methods

3.1. Measures

3.1.1. Control Variables

Education, gender and age were analyzed as control variables. For the education variable, the response options included in the survey were high school, studying for bachelor's, bachelor's, studying for master's, master's, studying for PhD and PhD. To assess the impact of this variable on CQ, it was transformed into a dichotomous variable: have an academic degree (bachelor's, studying for master's, master's or PhD) or do not have an academic degree (high school and studying for bachelor's). Similarly, the age variable was transformed into a dichotomous variable: up to 30 years old and over 30 years old. In the gender variable, the answers "other" were statistically considered as missing.

3.1.2. International Experience and Cultural Exposure

To study the effect of international experience and cultural exposure, a set of questions were included. International experience was assessed through activities abroad, while cultural exposure was assessed through contact with foreign people in the country of residence, as cultural exposure can also occur in the country of residence, without travelling. The activities included in international experience were exchange programs (e.g., Erasmus programs), volunteer work, scientific research, working and leisure. For cultural exposure, the areas of contact considered were the workplace, the classroom, the family environment, the place of residence, leisure and volunteer work. This set of variables is of a dichotomous nature, as the possible answers are having or not having contact abroad and having or not having contact in the country.

Two further questions, related to the number of different countries in which each respondent has lived or had visited and the number of foreign languages each respondent mastered confidently (comfortable communicating in written or oral form), were also included.

3.1.3. Cultural Intelligence Scale

The Cultural Intelligence Scale (CQS) used in this study was developed by Dyne et al. [28]. The CQS has 20 items divided into four dimensions. This scale includes four items for metacognitive CQ, six items for cognitive CQ, five items for motivational CQ and five items for behavioral CQ. All items were rated on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

In this study, the translation of the scale into Portuguese by Sousa et al. [47] was used. Sousa et al. concluded that the exploratory analysis showed good validity values and good metric properties. In the study conducted by Sousa et al., the Cronbach's alpha ranged from 0.71 to 0.89.

Before data collection began, a pre-test was undertaken to examine the appropriateness of the wording and the meaning of items in the survey. For the pilot study, 30 students were invited to complete the survey. The pre-test led to a Cronbach's alpha higher than 0.75, and participants easily understood the questions. These 30 pre-test samples were excluded from the final survey.

After data collection and validation, they was released and processed in the Statistical Package for Social Sciences (SPSS) version 26.0 for Windows.

The psychometric properties of the CQ scale were assessed through factor analysis with a varimax (orthogonal) rotation and internal consistency.

A factor analysis (FA) with a varimax (orthogonal) rotation of 20 CQ items was conducted on data gathered from 445 participants. Bartlett's test of sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant ($p < 0.001$), indicating that it was appropriate to use factor analysis on this set of data. An examination of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy suggested that the sample was suitable (KMO = 0.879); thus, it was acceptable to proceed with the analysis.

The results of the FA, using the principal components method and varimax rotation, provided support for a four-component solution, accounting for 57.7% of total variance (Table 1). The labels proposed by the CQ scale suited the extracted components and were retained: cognitive, behavioral, motivational and metacognitive. The internal consistency for each of the components was examined using Cronbach's alpha. The alphas show good reliability: 0.802 for cognitive (6 items), 0.834 for behavioral (5 items), 0.792 for motivational (5 items) and 0.741 for metacognitive (4 items). No substantial increases in alpha for any of the scales could have been achieved by eliminating items. The overall alpha for CQ scale also shows good reliability (0.876; 20 items).

Table 1. Factor analysis (N = 445).

CQ Items	Cognitive	Behavioral	Motivational	Metacognitive
CQ17	0.772			
CQ18	0.743			
CQ16	0.729			
CQ14	0.671			
CQ15	0.610			
CQ19	0.596			
CQ28		0.828		
CQ27		0.780		
CQ29		0.762		
CQ26		0.758		
CQ25		0.558		
CQ23			0.798	
CQ24			0.734	
CQ22			0.694	
CQ20			0.660	
CQ21			0.637	
CQ10				0.812
CQ12				0.746
CQ11				0.711
CQ13				0.587
% Variance	30.9%	41.3%	50.3%	57.7%
Eigenvalue	6.174	2.085	1.081	1.476
Cronbach's Alpha	0.802	0.834	0.792	0.741

3.2. Data Collection and Sample

Data collection was performed using an online tool, and the individual request for collaboration was sent by e-mail between April 2019 and June 2019. This email was written in a cover letter format, briefly explaining the purpose of the survey and highlighting the need for the respondents' collaboration. The responses' confidentiality was ensured. The criterion used for the constitution of the sample was convenience; this criterion was justified by the easy accessibility, availability and the willingness to participate. The data were obtained from students and staff members with links to bachelor's and master's degree courses in the scientific areas of industrial management engineering, civil engineering, informatics engineering and electrotechnics engineering. In total, 957 students (14.9% of all students at the institution) and 242 staff members (39.2% of the total staff of the institution) were invited to participate in the study. The response rate, considering only correctly completed surveys, was 30.8% for students and 61.9% for staff members. The sample characterization is listed in Table 2.

Table 2. The characterization of the sample (N = 445) in percentages.

Professional activity	Staff	33.7
	Student	66.3
Gender	Female	35.7
	Male	63.4
	Not specified	0.9
Education	Higher education degree	58.7
	No higher education degree	41.3
Age	18–23	45.8
	24–29	14.5
	30 or more	39.7

The ages range from 18 to 74, but about 60% are between 18 and 29 years old. Most of the respondents are students, male and young. This result represents the composition of a Portuguese engineering teaching institution.

4. Results

As the sample size is large, and assuming that the central limit theorem can be applied, parametric tests can be used and will produce higher statistical power than non-parametric tests. To answer the questions under study, descriptive statistics, multivariate analysis, correlation analyses and multiple regression analysis were used. In the analysis of the CQ antecedents and its dimensions, multivariate analysis was carried out. Multicollinearity statistics were examined to conduct multiple regression analysis, and it can be argued that the assumption was validated since the VIF values were lower than 10 (and, therefore, the tolerance values were higher than 0.1) in all regressions [71].

4.1. Level of CQ and Dimensions

To answer RQ1, it is necessary to calculate the value of CQ. To do so, the methodology described in previous studies [72] was used, which consists of calculating the mean value for each dimension (metacognitive, cognitive, motivational, behavioral) and then obtaining the mean CQ value from the mean values of the components. This procedure guarantees an equal weighting for each dimension in the CQ value. Table 3 shows the results obtained.

Table 3. CQ and dimensions scores (N = 445).

	Calculation Description	Mean (SD)	Min	Max	Median
Metacognitive	4-item average	5.53 (0.80)	2.75	7.00	5.75
Cognitive	6-item average	4.53 (0.90)	2.00	6.83	4.67
Motivational	5-item average	5.33 (0.89)	2.20	7.00	5.40
Behavioral	5-item average	5.30 (0.93)	1.60	7.00	5.40
CQ	4-component average	5.17 (0.65)	2.43	6.96	5.19

The scale from one to seven was divided into three parts, thereby obtaining three categories, which were classified as "low level" [1, 2.9], "medium level" [3, 4.9] and "high level" [5, 7]. From Table 3, it is possible to see that the mean value of CQ is greater than 5, which indicates a high degree of cultural intelligence level. It should be noted that the value of the cognitive component is clearly lower than the remaining dimensions and its score is medium level.

Figure 1 visually reinforces the previous analysis using the five-number summary, yellow color highlights the total QC value. The distribution of the motivational and behavioral dimensions looks very similar. However, the cognitive dimension presents lower values than the others. In this case, 50% of the participants scored 4.67 or less in this dimension. In contrast, the metacognitive dimension presents higher values; only 25% of the participants had a score equal to 5 or less.

4.2. Student and Staff Level of CQ

Table 4 shows the descriptive statistics results for the CQ and for the dimensions for students and staff. In both groups, the level of CQ is high, the metacognitive CQ has the highest score and the cognitive CQ the lowest.

To answer RQ2, a multivariate analysis was performed (MANOVA). As the size of the two groups under analysis is different, Wilks' lambda was used to assess the existence of differences. The results obtained did not show statistically significant differences between staff and students in the level of CQ ($F = 1.134$; $\lambda = 0.990$; sig. $= 0.340$; partial $\eta^2 = 0.010$). Table 5 shows the results.

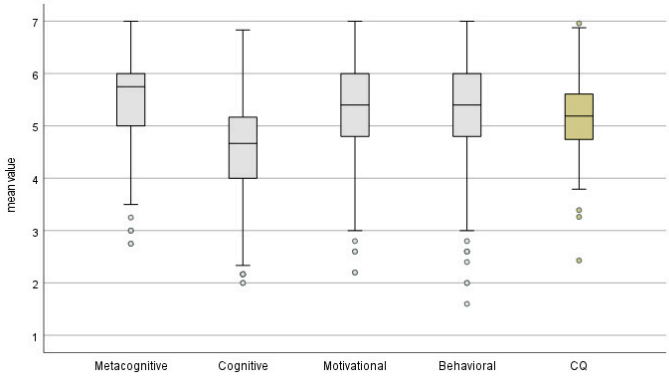

Figure 1. CQ and the four dimensions assessment.

Table 4. CQ and dimension scores for staff (N = 150) and students (N = 295).

	Staff		Students	
	Mean (SD)	**Median**	**Mean (SD)**	**Median**
Metacognitive	5.52 (0.76)	5.50	5.54 (0.82)	5.75
Cognitive	4.64 (0.82)	4.67	4.48 (0.94)	4.67
Motivational	5.33 (0.91)	5.40	5.32 (0.88)	5.40
Behavioral	5.34 (0.91)	5.40	5.28 (0.94)	5.40
CQ	5.21 (0.63)	5.21	5.15 (0.66)	5.19

Table 5. MANOVA analysis for students and staff (N = 445).

Source	Dependent Variable	Sum Squares	df	Mean Square	F	Sig.	Partial η^2
Staff and students	Metacognitive	0.024	1	0.024	0.038	0.846	0.000
	Cognitive	2.539	1	2.539	3.133	0.077	0.007
	Motivational	0.004	1	0.004	0.004	0.947	0.000
	Behavioral	0.375	1	0.375	0.433	0.511	0.001
	CQ	0.278	1	0.278	0.664	0.415	0.001
Error	Metacognitive	284.470	443	0.642			
	Cognitive	358.978	443	0.810			
	Motivational	353.440	443	0.798			
	Behavioral	383.430	443	0.866			
	CQ	185.358	443	0.418			
Corrected total	Metacognitive	284.494	444				
	Cognitive	361.517	444				
	Motivational	353.443	444				
	Behavioral	383.805	444				
	CQ	185.636	444				

Although the staff's average level of CQ [5.21 (0.63)] is higher than the students' average level CQ [5.15 (0.66)], the results show that there are no significant differences between the two groups in the level of CQ, nor in any of the CQ dimensions.

4.3. Level of CQ and International Experience

The study of the relation between the level of CQ and international experience was based on the following analyses: point-biserial correlation to measure the degree or strength of the association between the variables, followed by a stepwise regression analysis to predict or estimate the value of CQ based on international experience.

Table 6 shows the results of the correlation between the control variables (age, education, gender), the international experience variables (exchange programs, volunteer work, scientific research, working, leisure, number of countries visited and number of languages spoken or written) and the CQ and its dimensions.

Table 6. Correlations for international experience (N = 445).

	Age	2	3	4	5	6	7	8	9	10	11	12	13	14
2. Education	0.586 **													
3. Gender	−0.105 *	−0.096 *												
4. Exchange	0.220 **	0.215 **	−0.156 **											
5. Volunteering	0.082	0.064	−0.081	0.131 **										
6. Research	0.474 **	0.557 **	−0.027	0.234 **	0.092									
7. Working	0.285 **	0.159 **	0.161 **	0.068	0.085	0.140 **								
8. Leisure	0.151 **	0.112 *	−0.096 *	0.147 **	0.043	0.112 *	0.026							
9. Countries	0.489 **	0.483 **	−0.023	0.388 **	0.090	0.374 **	0.235 **	0.214 **						
10. Languages	0.289 **	0.190 **	0.095 *	0.196 **	0.027	0.198 **	0.176 **	0.099 *	0.325 **					
11. Metacognitive	0.061	−0.024	−0.109 *	0.147 **	0.101 *	0.002	0.048	0.022	0.132 **	0.094 *				
12. Cognitive	0.134 **	0.078	−0.021	0.074	0.031	0.062	0.103 *	0.027	0.146 **	0.121 *	0.422 **			
13. Motivational	0.095 *	0.021	−0.052	0.297 **	0.134 **	0.021	0.135 **	0.114 *	0.209 **	0.177 **	0.405 **	0.343 **		
14. Behavioral	0.097 *	0.004	−0.147 **	0.121 *	0.112 *	0.068	0.086	0.122 *	0.146 **	0.099 *	0.429 **	0.336 **	0.380 **	
CQ	0.133 **	0.029	−0.112 *	0.217 **	0.128 **	0.054	0.128 **	0.099 *	0.217 **	0.168 **	0.751 **	0.719 **	0.727 **	0.741 **

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

The analysis of Table 6 allows us to observe that the activities of exchange programs and volunteer work are positively related to the CQ and to the metacognitive, motivational and behavioral dimensions. Working abroad activity is positively related to CQ and to the cognitive and motivational dimensions. The number of countries visited and the number of languages spoken or written are positively correlated with the CQ and the four dimensions. Conducting scientific research abroad is not correlated with the CQ or its dimensions.

It should be noted that age is positively correlated with CQ and some of its dimensions, while gender is negatively correlated with all the dimensions of CQ, and education is not correlated with CQ or any of its dimensions.

To answer RQ3, multiple regression analysis was conducted. The control variables were introduced in step 1 and antecedents in step 2. The results, shown in Table 7, provide the model estimates for the CQ and its dimensions.

The regression revealed that not all the variables under study are statistically significant predictors of cultural intelligence. The results suggested that the number of countries visited (b = 0.013, $p < 0.05$), number of languages spoken (b = 0.079, $p < 0.05$), working abroad (b = 0.161, $p < 0.05$) and exchange programs (b = 0.204, $p < 0.05$) are significant predictors for CQ.

The findings about the motivational dimension showed that exchange programs (b = 0.025, $p < 0.001$), working abroad (b = 0.246, $p < 0.05$), number of languages (b = 0.124, $p < 0.05$) and number of countries (b = 0.015, $p < 0.05$) are significant predictors. None of the international experience activities are a predictor of the metacognitive, cognitive and behavioral dimensions.

4.4. Level of CQ and Cultural Exposure

The study of the relationship between the level of CQ and cultural exposure followed the analysis strategy described in Section 4.3. Table 8 shows the results of the correlation between the control variables (age, education and gender), the cultural exposure variables

(workplace, classroom, family environment, place of residence, leisure, volunteer work and number of languages spoken or written) and the CQ and its dimensions.

Table 7. Results of the hierarchical regression analysis between dimensions of CQ and international experience.

	Metacognitive		Cognitive		Motivational		Behavioral		CQ	
Variable	**Step 1**	**Step 2**	**Step 1**	**Step 2**	**Step 1**	**Step 2**	**Step 1**	**Step 2**	**Step 1**	**Step 2**
Age	0.121	0.030	0.151	0.028	0.073	−0.126	0.169	−0.004	0.128	−0.18
Gender	−0.158 *	−0.159	−0.015	−0.061	−0.060	−0.056	−0.217 *	−0.237 *	−0.112	−0.128 *
Education	−0.077	−0.115	0.080	0.044	−0.004	−0.110	−0.061	−0.143	−0.015	−0.081
Exchange		0.188		0.013		0.025 ***		0.090		0.204 *
Volunteering		0.358		0.061		0.473 *		0.437		0.332
Research		−0.139		−0.052		−0.174		0.034		−0.083
Working		0.069		0.147		0.246 *		0.181		0.161 *
Leisure		−0.041		−0.025		0.139		0.210		0.070
Countries		0.012		0.013		0.015 *		0.013		0.013 *
Languages		0.057		0.074		0.124 *		0.062		0.079 *
F	2.187	2.452 **	1.806	1.473	0.418	7.129 ***	3.113 *	2.927 **	2.581	5.038 ***
DF		2.542		1.228		10.108		2.808		6.005
R2	0.015	0.054	0.012	0.031	0.003	0.143	0.021	0.063	0.017	0.104
DR2		0.039		0.019		0.140		0.043		0.087
Adjusted R2	0.008	0.032		0.009	−0.004	0.123	0.014	0.042	0.011	0.084

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 8. Correlations for cultural exposure (N = 445).

	Age	2	3	4	5	6	7	8	9	10	11	12	13	14
2. Education	0.586 **													
3. Gender	−0.105 *	−0.096 *												
4. Workplace	0.544 **	0.344 **	0.048											
5. Classroom	0.087	0.202 **	0.018	0.056										
6. Family	0.068	0.055	−0.042	0.062	−0.008									
7. Residence	0.010	−0.016	0.053	0.091	0.149 **	0.117 *								
8. Leisure	0.207 **	0.128 **	−0.039	0.188 **	0.141 **	0.050	0.118 *							
9. Volunteering	0.018	0.033	−0.046	0.108 *	0.046	0.110 *	0.146 **	0.070						
10. Languages	0.289 **	0.190 **	0.095 *	0.298 **	0.048	0.102 *	0.165 **	0.164 **	0.088	0.325 **				
11. Metacognitive	0.061	−0.024	−0.109 *	0.001	0.076	0.083	0.064	0.030	0.090	0.132 **				
12. Cognitive	0.134 **	0.078	−0.021	0.070	0.021	0.105 *	0.060	0.033	0.088	0.146 **	0.422 **			
13. Motivational	0.095 *	0.021	−0.052	0.097 *	0.115 *	0.127 **	0.126 **	0.144 **	0.197 **	0.209 **	0.405 **	0.343 **		
14. Behavioral	0.097 *	0.004	−0.147 **	0.138 **	−0.008	0.070	0.129 **	0.113 *	0.059	0.146 **	0.429 **	0.336 **	0.380 **	
CQ	0.133 **	0.029	−0.112 *	0.108 *	0.068	0.131 **	0.131 **	0.111 *	0.148 **	0.217 **	0.751 **	0.719 **	0.727 **	0.741 **

**. Correlation is significant at the 0.01 level (2-tailed).*. Correlation is significant at the 0.05 level (2-tailed).

The analysis of Table 8 allows us to observe that cultural exposure in the work environment, in the place of residence and on vacation is positively correlated with the motivational and behavioral dimensions and with the global CQ. Cultural exposure in the family environment is positively correlated with cognitive and motivational dimensions

and with CQ. Cultural exposure in the classroom only correlates positively with the motivational dimension. Finally, cultural exposure in volunteer work is positively correlated with the motivational dimension and with CQ.

It should be noted that none of the cultural exposure activities (4 to 9) are related to the metacognitive dimension and that only cultural exposure activity in the family environment is correlated with the cognitive dimension. Also noteworthy is the result that all activities (4 to 9) are positively correlated with the motivational dimension.

To answer RQ4, multiple regression analysis was conducted. Again, the control variables were introduced in step 1 and antecedents in step 2. The results shown in Table 9 provide model estimates for the CQ and its dimensions.

Table 9. Results of the hierarchical regression analysis between dimensions of CQ and cultural exposure.

	Metacognitive		Cognitive		Motivational		Behavioral		CQ	
Variable	**Step 1**	**Step 2**	**Step 1**	**Step 2**	**Step 1**	**Step 2**	**Step 1**	**Step 2**	**Step 1**	**Step 2**
Age	0.123	0.116	0.157	0.111	0.076	−0.080	0.172	0.012	0.132	0.040
Gender	−0.156 *	−0.162 *	−0.010	−0.022	−0.057	−0.079	−0.214 *	−0.258 **	−0.109	−0.130 *
Education	−0.075	−0.082	0.083	0.085	−0.002	−0.043	−0.059	−0.080	−0.014	−0.030
Workplace		−0.091		−0.025		0.072		0.217 *		0.043
Classroom		0.116		0.001		0.154		−0.069		0.051
Family		0.105		0.154		0.164		0.075		0.124
Residence		0.069		0.070		0.101		0.252 *		0.123
Leisure		−0.013		−0.015		0.180		0.145		0.074
Volunteering		0.204		0.234		0.554 *		0.033		0.254 *
Languages		0.084		0.092		0.149 *		0.055		0.095 *
F	2.180	1.881 *	1.935	1.597	0.430	4.686 ***	3.113 *	2.886 **	2.617	3.775 ***
DF		1.714		1.447		6.494		2.752		4.214
R2	0.015	0.041	0.013	0.035	0.003	0.097	0.021	0.062	0.017	0.080
DR2		0.027		0.023		0.095		0.042		0.063
Adjusted R2	0.008	0.019	0.006	0.013	−0.004	0.077	0.014	0.041	0.011	0.059

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The regression revealed that not all antecedents were statistically significant predictors of cultural intelligence. The results suggested that the number of languages spoken, volunteer work and family environment are significant predictors for CQ. The number of languages spoken is a significant predictor for CQ (b = 0.095, $p < 0.05$). Additionally, having voluntary work experience was found to be significant (b = 0.254, p-value < 0.05).

The outcomes about the motivational dimension showed that volunteer work and the number of languages are significant predictors. Therefore, having volunteer work experience was found to be significant (b = 0.554, $p < 0.05$). The number of languages spoken is also a significant predictor for motivational dimension (b = 0.149, $p < 0.05$).

In the behavioral dimension, the predictors identified as significant are contact in the workplace and the place of residence. Contact in the workplace is a significant predictor for the behavioral dimension (b = 0.217, $p < 0.05$). With respect to having contact in the place of residence, this was found to be significant (b = 0.252, $p < 0.05$).

None of the international experience activities are a predictor of the metacognitive and cognitive dimensions.

5. Discussion

5.1. Level of CQ

The results obtained indicate a high level of CQ, both for students and staff. The high result for the metacognitive CQ means that the individuals in the sample have heightened consciousness of how their own culture influences their behavior and their interpretation of intercultural situations [73].

The high value obtained in this study for the motivational CQ indicates the considerable capacity of the individuals to direct attention and energy to learning and functioning in situations characterized by cultural differences [28]. Additionally, in the CQ behavioral dimension, the results reveal a high level, which reflects that high-scoring individuals are able to overcome the natural human tendency to rely on habit and show an aptitude to adjust to different intercultural contexts [74,75].

However, for the CQ cognitive dimension, the results indicate an average value. This result could mean a lower propensity for understanding the elements that make up the cultural environment, which makes it difficult to understand the patterns of behaviors and interactions within a culture and the reasons why behaviors and interactions differ between different cultural environments [74]. This result is consistent with the result obtained by Tu and Zhang [50], although it is in contradiction with the results found by Şenel [22].

The value obtained in this study for CQ (5.12) is higher than other studies in a higher education environment. The literature reports a value of 4.89 in a university in Singapore [49], a value of 4.64 in a university in the United Kingdom [51], a value of 4.14 in a university in Spain [40], a value of 4.68 in a university in Taiwan [75] and a value of 4.98 in a university in the United States [59].

Other studies in the higher education context but with participants who hold management positions found higher values. For instance, a study with international school leaders found a value of 5.75 [1]. In general, higher values were found in studies in which the participants were already in the labor market [62,76].

The lowest value obtained for the cognitive dimension, confirmed in other studies [49–52], should serve as a guideline in the development of strategies to promote CQ in higher education institutions.

Overall, the results of this study reach a high CQ level, which reveals that the individuals considered in this study are able to communicate effectively in culturally diverse contexts and to relate and work or study effectively in multicultural environments [29,77].

These results can be explained by Hofstede's cultural dimensions. When applied to Portugal, they identify a society that encourages respect, acceptance of differences and the inclusion of minority groups [78]. This may be due to the fact that Portugal was, and still is, a country with strong emigration for many decades and is currently experiencing the phenomenon of immigration. The current Portuguese society, where many different cultures can be found, makes Portugal today an increasingly multicultural society [79].

The results show that in the higher education institution under study, there are no significant differences between the CQ level of students and staff, nor in any of the four CQ dimensions. This result is a little surprising due to the difference in life paths and experiences of the two groups. In a contradictory way, Mahasneh and Gazo [56] obtained results that indicated significant differences in the cognitive and behavioral dimensions, with lower values for students. However, in the overall value of CQ, they did not find significant differences either. The fact that there are no more studies prevents us from understanding whether this result is a characteristic of the institutions under study or if, on the contrary, it is a common characteristic with other HEIs, so more research on this topic is needed.

5.2. Level of CQ and International Experience and Cultural Exposure

This study aims to contribute to increasing knowledge of the development process of the level of CQ based on international experiences and cultural exposure activities. A set of activities common to HEI members was evaluated, since knowledge of the factors that can influence CQ levels provides important information for improving the cultural education of students and staff in general.

We found that the score is higher for people who engage in these types of activities. This result is particularly relevant in the increasingly multicultural higher education environment—which raises complex issues of interculturality—because it can constitute a

mechanism for developing a social context for learning to live, study and work in different cultural environments [65].

The results for the international experience show that not all activities studied are predictive of CQ or its dimensions.

The result obtained for activities related to exchange programs stands out. Individuals who participated in these programs reveal higher and statistically significant values for the motivational dimension and for the overall CQ.

The value of these programs is widely recognized by HEIs and is very widespread and rooted in European HEIs [80]. Those who participate in these programs, in general, reveal a predisposition to adapt to different cultural contexts, as well as positively perceive the benefits they can obtain through different cultural experiences, such as increased employability [65]. This finding may be one of the explanations for the relationship between this activity and the motivational dimension. In addition, these programs include formal activities related to class attendance and others designed by the institutions, but also informal activities such as sightseeing tours or academic parties, which are heavily attended. According to the results obtained by Lin and Shen [24], contact that occurs in informal settings has more significant impacts when compared to formal contact. The results obtained in this study confirm the contribution of these programs to the development of CQ, which had previously been reported by Emil and Gökten [81] with a sample of Turkish students and by Wooda et al. [82] with a sample of students from USA. McKay et al. [83], with a sample of French and Australian students, reinforced this evidence and argued that exchange programs are especially well suited to promoting the development of CQ.

The results show that the other activity that, like exchange programs, has a positive and significant relationship with the motivational dimension and global CQ is working abroad. Several studies have confirmed the positive effect of work experiences abroad on all CQ dimensions [48,59], and others only in the metacognitive and cognitive dimensions [62]. Other authors argue that work-related experiences abroad essentially develop knowledge and skills that relate to the work itself, which limits the experience and its effect on CQ [61,84]. A possible explanation for these discrepancies is the way this activity was measured as an international experience activity [16,85]. However, the results of this study confirm the results of the literature, which demonstrate that the experience of working abroad has a positive impact on the development of CQ.

With regard to the remaining international experience activities studied, the results show that these are not predictors of CQ. This result does not fully support the results published in the literature. For example, there are several studies demonstrating that volunteer activities or leisure activities contribute to the development of CQ and/or its dimensions [9,23,35,64,75,86].

Unexpectedly, the results show that scientific research activity does not contribute to the development of CQ or any of its dimensions. This result is unexpected because carrying out scientific research is a concrete work situation and working abroad has been shown to have an impact on CQ.

In the published literature, cultural exposure is mainly studied in terms of activities developed across borders, which we call international experience. However, as we argue, it is not necessary to travel to experience contact with different cultures; there are several opportunities that arise in the country of residence that allow a person to experience situations that make this type of contact possible. In the higher education environment, many students do not have the possibility to go abroad, so it is important to understand whether it is possible to develop CQ, or its dimensions, through cultural exposure in the country of residence. Often, this approach has not been considered in the literature, as can be seen in a recent review article on the issue of cultural exposure [85].

Regarding the cultural exposure activities studied, the results show that contact in the work environment and in the place of residence has an impact on the behavioral dimension. The influence on CQ in the workplace has been studied mainly with regard to expatri-

ates [87]. An argument that can explain this result is the need, for reasons of productivity and efficiency, to adopt flexible behaviors in the work environment when interacting with people from different cultures. In the place of residence, a possible explanation may be the need to live in harmony with groups of different cultures. These activities can enhance the ability to learn from differences and cultural conflicts instead of learning how to avoid them [17].

Particularly important for higher education institutions is cultural exposure in the classroom. The results of this study show that this activity does not contribute to the development of CQ or any of its dimensions. A possible explanation for these results is given by Chao et al. [58], who argue that implicit cultural beliefs shape CQ in the context of multicultural experiences, especially for those who have developed specific experiences, such as contact in the classroom. These experiences may have been negative, revealing an inability to adapt to the cultural context. The identification of the quality of the lived experience should be included in future studies to clarify the impact of international experiences on the development of CQ. Additionally, experience duration may not have been sufficient to have an impact on CQ [88]. An additional explanation may be the fact that the pedagogical methodologies and practices are not adequate, or sufficient, for the development of the level of CQ. There are several studies reporting positive results when course design includes practical teaching practices that promote effective intercultural interaction [25,67,89]. Other authors have also studied, with positive results, the inclusion of activities specially designed to promote the development of culturally specific knowledge and cultural intervention skills, such as intercultural communication workshops, foreign language lectures taught by foreign people or work in multicultural groups [36,90,91]. In addition to formal activities, the promotion of extracurricular activities has been proven to have a significant impact on the promotion of CQ [24].

Finally, an impact assessment of the number of countries visited and the number of languages spoken was included in this study. The number of countries visited is one of the ways to measure the breadth of exposure to other cultures [12]. The results obtained indicate that the level of CQ is higher for people who have travelled to a higher number of countries and is a significant predictor of CQ and the motivational dimension. Crowne [64] reported that the number of countries visited is a significant predictor for all dimensions when the reason for travel was to work, but not when travel was for holiday. The level of cultural exposure is unlikely to be the same for a person who has only been to one foreign country or for a person who has been to several. Tharapos et al. [72] argued that exposure to a variety of cultures, considering those that are most similar and those that are most distant from each person's origin, jointly contributes to the development of CQ. This result highlights the potential of the diversity of countries visited in terms of performance increase and more effective adaptation to work situations in multicultural groups, programs of study or work abroad [28].

The results of the tests performed for the number of different languages spoken or written fluently showed that the score is higher for those who speak a greater number of different languages and influences the overall CQ. This result is consistent with the literature [68,75,92]. One of the main difficulties in integrating into a new culture is understanding the language and being able to communicate [23]. Language plays a fundamental role in the ability to express feelings and thoughts, facilitates communication and allows the exchange of knowledge. Furthermore, when learning a language, learning the associated culture tends to occur [11]. This result emphasizes the importance of language learning for the development of the ability to engage in higher-quality social interactions and to have more appropriate verbal and non-verbal behaviors in multicultural interactions, as well as to avoid or reduce social conflicts [93].

6. Conclusions

This study contributes to the advancement of knowledge of CQ in the higher education sector, more specifically, in a Portuguese engineering higher education institution.

Additionally, it contributes to increasing the knowledge of the process through which CQ can be developed. The main results obtained are highlighted below:

- The value obtained for CQ is higher than other studies in a higher education environment and the motivational CQ is the largest contributor to CQ. Higher values were only found when the sample was made up of students who were already in the job market. The component with the lowest score was the cognitive CQ.
- No significant differences were found between the CQ level of students and staff, nor in any of the four CQ dimensions.
- The value obtained for CQ is higher for people who engage in international experiences and activities that promote cultural exposure.
- Working abroad and participating in exchange programs promotes the development of the CQ level.
- Contact in the work environment and in the place of residence, in the country of residence, promotes the development of the CQ level. Cultural exposure in the classroom is not enough for the development of CQ.
- The CQ level is higher for people who have travelled to a greater number of countries, and also for people who are fluent in several languages.

This result shows that individuals in this Portuguese institution have an interesting level of awareness of others' cultural preferences before and after the interaction, and that they possess the ability to adapt their cultural knowledge when interacting with a culture different from their own [29]. However, particular attention should be paid to improving the outcome of the cognitive component. The introduction of learning methodologies and training programs that enhance the development of cultural intelligence and its dimensions, in particular the cognitive, should be considered by teachers and promoted by the pedagogical and scientific managers of institutions [94]. The experiential teaching methodology seems to be one of those that lead to better results [67,95]. These results indicate that the managers of institutions should make additional efforts in these strategies for both students and staff. HEI´s efforts to raise awareness and promote Erasmus programs, or similar internships abroad, should be intensified.

The situated learning theory highlights the importance of context and exposure to real activities as a powerful source of learning and skill acquisition [96]. In this context, managers of HEIs should provide multicultural events for their members who cannot afford to experience cultural exposure without travelling to foreign countries. Lin and Shen [24] have shown that contact that takes place in informal settings, compared to formal ones, has more significant impacts. Based on this result, managers of HEIs can promote activities that foster multicultural contact, whether in extracurricular activities, or in multicultural clubs or associations, meetings, lectures, etc. Similarly, institutions can incorporate activities that involve society into their curricula. However, to be effective, these activities must be carefully designed and permanently monitored [97].

The results obtained in this study show that higher education institutions can play an active and preponderant role in the development of their members' CQ. However, they must make their members aware that the success of these initiatives is not possible if there is no openness to new experiences or belief in the advantages of opportunities for intercultural interaction or language learning.

Lastly, and although the results published in the literature can be explained by the diversity of the higher education sector, such as the size of the institutions, the different scientific areas in which they operate, the country of origin or their level of internationalization, the diversity of results supports the need for more research in this area, which will help institutions to define effective policies to promote the CQ level of their students and their staff.

Limitations and Future Research: This study has some limitations. A self-report survey was used as the method of data collection. Although these are widely used because of their practicality, their main drawbacks are the possibility of respondents misinterpreting the questions and some tendency to overvalue their personal performance [98]. Comple-

menting with studies of a qualitative approach can increase the reliability of the results. The sample of this study is from a single institution, which has a limited representation of Portuguese institutions. As the study was carried out in an engineering school, an important contribution to the knowledge of the development of CQ in the Portuguese higher education system would be to extend the study to schools of other scientific areas. A future line of research could be to study the potential contribution of the suggested training programs, the introduction of new methodologies in the learning process and the realization of multicultural events in HEIs. To date, no study has been published in the Portuguese context that relates CQ to personality traits, which, as we have seen, are very relevant to the development of CQ. This study on the background of CQ has mainly focused on international experiences and cultural exposure. Another possible future line of research will be to assess the impact of organizational culture [99] on community members' CQ development. Another interesting direction is to study the influence on CQ level of people with more than one mother tongue. Finally, another interesting possibility, which, as far as we can see, is not covered in the literature, would be to assess the influence of possible socio-economic constraints [100] on the development of CQ and its components.

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References

1. Keung, E.K.; Rockinson-Szapkiw, A.J. The relationship between transformational leadership and cultural intelligence: A study of international school leaders. *J. Educ. Adm.* **2013**, *51*, 836–854. [CrossRef]
2. Weber, L.; Duderstadt, J. *The Globalization of Higher Education*; Economica: London, UK, 2008.
3. MacNab, B. An experiential approach to cultural intelligence education. *J. Manag. Educ.* **2012**, *36*, 66–94. [CrossRef]
4. Malik, R.S. Educational Challenges in 21st Century and Sustainable Development. *J. Sustain. Dev. Educ. Res.* **2018**, *2*, 9–20. [CrossRef]
5. Wit, H.; Hunter, F.; Howard, L.; Polak, E. *Internationalisation of Higher Education*; Pärt, L., Ed.; European Parliament's Committee on Culture and Education: Brussels, Belgium, 2015; Available online: https://www.europarl.europa.eu/RegData/etudes/STUD/2015/540370/IPOL_STU(2015)540370_EN.pdf (accessed on 15 March 2021).
6. Knight, J. Internationalization Remodeled: Definition, Approaches, and Rationales. *J. Stud. Int. Educ.* **2004**, *8*, 5–31. [CrossRef]
7. Sharipov, F. Internationalization of higher education: Definition and description. *Ment. Enlight. Sci. Methodol. J.* **2020**, *2020*, 128–138.
8. Choudaha, R. Three waves of international student mobility (1999–2020). *Stud. High. Educ.* **2017**, *42*, 825–832. [CrossRef]
9. Lee, C.-W.; Wu, W.; Tan, Z.-Y.; Yang, C.-F. Qualitative Study of the Cross-Cultural Adaptation of Macao Students in Mainland China. *Educ. Sci.* **2020**, *10*, 128. [CrossRef]
10. Liao, Y.; Thomas, D.C. *Cultural Intelligence in the World of Work: Past, Present, Future*; Springer Nature: Cham, Switzerland, 2020.
11. Ang, S.; Ng, K.Y.; Rockstuhl, T. Cultural intelligence. In *The Cambridge Handbook of Intelligence*, 2nd ed.; Cambridge University Press: New York, NY, USA, 2020; pp. 820–845. [CrossRef]
12. Crowne, K.A. What leads to cultural intelligence? *Bus. Horiz.* **2008**, *51*, 391–399. [CrossRef]
13. Li, M.; Mobley, W.H.; Kelly, A. Linking personality to cultural intelligence: An interactive effect of openness and agreeableness. *Personal. Individ. Differ.* **2016**, *89*, 105–110. [CrossRef]

14. O'keefe, D.F.; Bourgeois, D.Y.; Davis, K.D. Evaluation of the Cultural Intelligence Scale with a Military Sample in the Canadian Armed Forces. *Res. Mil.* **2017**, *7*, 1–17.
15. Ang, S.; Van Dyne, L.; Koh, C.; Ng, K.Y.; Templer, K.J.; Tay, C.; Chandrasekar, N.A. Cultural Intelligence: Its Measurement and Effects on Cultural Judgment and Decision Making, Cultural Adaptation and Task Performance. *Manag. Organ. Rev.* **2007**, *3*, 335–371. [CrossRef]
16. Fang, F.; Schei, V.; Selart, M. Hype or hope? A new look at the research on cultural intelligence. *Int. J. Intercult. Relat.* **2018**, *66*, 148–171. [CrossRef]
17. Ott, D.L.; Michailova, S. Cultural Intelligence: A Review and New Research Avenues. *Int. J. Manag. Rev.* **2018**, *20*, 99–119. [CrossRef]
18. Solomon, A.; Steyn, R. Exploring cultural intelligence truths: A systematic review. *SA J. Hum. Resour. Manag.* **2017**, *15*, 11. [CrossRef]
19. Yari, N.; Lankut, E.; Alon, I.; Richter, N. Cultural Intelligence, Global Mindset, and Cross-cultural Competencies: A Systematic Review Using Bibliometric Methods. *Eur. J. Int. Manag.* **2020**, *14*, 210–250. [CrossRef]
20. Kirkman, B.L.; Lowe, K.B.; Gibson, C.B. A quarter century of Culture's Consequences: A review of empirical research incorporating Hofstede's cultural values framework. *J. Int. Bus. Stud.* **2006**, *37*, 285–320. [CrossRef]
21. Alon, I.; Boulanger, M.; Elston, J.; Galanaki, E.; Martinez de Ibarreta, C.; Meyers, J.; Muniz Ferrer, M.; Velez-Calle, A. Business Cultural Intelligence Quotient: A Five-Country Study: Business Cultural Intelligence Quotient: A Five-Country Study. *Thunderbird Int. Bus. Rev.* **2016**, *60*, 237–250. [CrossRef]
22. Şenel, M. Investigation of the Cultural Intelligence Levels of the Turkish University Students at Foreign Language Departments. *Int. J. Lang. Educ.* **2020**, *4*, 361–377.
23. Sousa, C.; Gonçalves, G.; Santos, J. Intercultural Contact as a Predictor of Cultural Intelligence. *Univ. Psychol.* **2019**, *18*, 1–12. [CrossRef]
24. Lin, X.; Shen, G.Q.P. How formal and informal intercultural contacts in universities influence students' cultural intelligence? *Asia Pac. Educ. Rev.* **2020**, *21*, 245–259. [CrossRef]
25. Kurpis, L.H.; Hunter, J. Developing Students' Cultural Intelligence Through an Experiential Learning Activity: A Cross-Cultural Consumer Behavior Interview. *J. Mark. Educ.* **2017**, *39*, 30–46. [CrossRef]
26. Koo Moon, H.; Kwon Choi, B.; Shik Jung, J. Comprehensive examination on antecedents of cultural intelligence: Case of South Korea. *Pers. Rev.* **2012**, *42*, 440–465. [CrossRef]
27. Hofstede, G. Dimensionalizing Cultures: The Hofstede Model in Context. *Online Read. Psychol. Cult.* **2011**, *2*, 2307-0919. [CrossRef]
28. Dyne, L.V.; Ang, S.; Koh, C. *Handbook of Cultural Intelligence: Theory, Measurement, and Applications*; Ang, S., Dyne, L.V., Eds.; Sharpe: Armonk, NY, USA, 2008.
29. Earley, P.C.; Ang, S. *Cultural Intelligence: Individual Interactions across Cultures*; Stanford University Press: Stanford, CA, USA, 2003.
30. Fang, F.; Schei, V.; Selart, M. Cultural Intelligence: Review published in Oxford Bibliographies. 2019. Available online: https://www.oxfordbibliographies.com/display/document/obo-9780199846740/obo-9780199846740-0115.xml?rskey=xOlpYt&result=1&q=31.%09Fang%2C+F.+%26+Schei%2C+V.+%26+Selart%2C+M#firstMatch (accessed on 21 May 2023).
31. Van Dyne, L.; Ang, S.; Koh, C. Development and validation of the CQS. In *Handbook of Cultural Intelligence. Theory, Measurement and Applications*; Sharpe: Armonk, NY, USA, 2008.
32. Crowne, K.A. The relationships among social intelligence, emotional intelligence and cultural intelligence. *Organ. Manag. J.* **2009**, *6*, 148–163. [CrossRef]
33. Dyne, L.V.; Ang, S.; Koh, C. Cultural intelligence: Measurement and scale development. In *Contemporary Leadership and Intercultural Competence: Exploring the Cross-Cultural Dynamics within Organizations*; Moodian, M.A., Ed.; Sage Publications, Inc.: New York, NY, USA, 2009; pp. 233–254.
34. Bücker, J.; Furrer, O.; Lin, Y. Measuring cultural intelligence (CQ): A new test of the CQ scale. *Int. J. Cross Cult. Manag.* **2015**, *15*, 259–284. [CrossRef]
35. Presbitero, A.; Toledano, L.S. Global team members' performance and the roles of cross-cultural training, cultural intelligence, and contact intensity: The case of global teams in IT offshoring sector. *Int. J. Hum. Resour. Manag.* **2018**, *29*, 2188–2208. [CrossRef]
36. Hong, J.; Ko, H.; Mesicek, L.; Song, M. Cultural intelligence as education contents: Exploring the pedagogical aspects of effective functioning in higher education. *Concurr. Comput. Pract. Exp.* **2019**, *33*. [CrossRef]
37. Livermore, D.; Van Dyne, L.; Ang, S. Organizational CQ: Cultural intelligence for 21st-century organizations. *Bus. Horiz.* **2022**, *65*, 671–680. [CrossRef]
38. Coleman, J.K.; Holloman, D.B.; Turner-Harper, M.D.; Wan, C.M. Cultural Competency Activities: Impact on Student Success. *Metrop. Univ.* **2021**, *32*, 27–44. [CrossRef]
39. Khodadady, E.; Ghahari, S. Validation of the Persian Cultural Intelligence Scale and Exploring Its Relationship with Gender, Education, Travelling Abroad and Place of Living. *Glob. J. Hum. Soc. Sci.* **2011**, *11*, 65–75.
40. Moyano, M.; Tabernero, C.; Melero, R.; Trujillo, H.M. Spanish version of the Cultural Intelligence Scale (CQS)/Versión española de la Escala de Inteligencia Cultural (EIC). *Rev. Psicol. Soc. Int. J. Soc. Psychol.* **2015**, *30*, 182–216. [CrossRef]

41. Khan, K.A.; Hasan, B. Validation of the 20-Item Cultural Intelligence Scale in Indian within Country Migrated Students. *Int. J. Indian Psychol.* **2016**, *3*, 2349–3429.
42. Barzykowski, K.; Majda, A.; Szkup, M.; Przyłęcki, P. The Polish version of the Cultural Intelligence Scale: Assessment of its reliability and validity among healthcare professionals and medical faculty students. *PLoS ONE* **2019**, *14*, e0225240. [CrossRef]
43. Lee, S.Y.; Hong, A.J. Psychometric Investigation of the Cultural Intelligence Scale Using the Rasch Measurement Model in South Korea. *Sustainability* **2021**, *13*, 3139. [CrossRef]
44. Greischel, H.; Zimmermann, J.; Mazziotta, A.; Rohmann, A. Validation of a German Version of the Cultural Intelligence Scale. *Int. J. Intercult. Relat.* **2021**, *80*, 307–320. [CrossRef]
45. Brancu, L.; Şahin, F.; Guðmundsdóttir, S.; Çetin, F. Measurement invariance of the Cultural Intelligence Scale across three countries. *Int. J. Intercult. Relat.* **2022**, *86*, 145–157. [CrossRef]
46. Piršl, E.; Drandić, D.; Matošević, A. Cultural intelligence: Key intelligence of the 21st Century? Validation of CQS Instrument. *Medijske Studije* **2022**, *13*, 90–105. [CrossRef]
47. Sousa, C.; Gonçalves, G.; Reis, M.; Santos, J.V.d. Metric Evidences of the Adaptation of the Cultural Intelligence Scale in a Portuguese Sample. *Psychol. Psicol. Reflexão E Crítica* **2015**, *28*, 232–241. [CrossRef]
48. Sahin, F.; Gürbüz, S.; Köksal, O.; Ercan, Ü. Measuring Cultural Intelligence in the Turkish Context. *Int. J. Sel. Assess.* **2013**, *21*, 135–144. [CrossRef]
49. Ang, S.; Dyne, L.V.; Koh, C. Personality Correlates of the Four-Factor Model of Cultural Intelligence. *Group Organ. Manag.* **2006**, *31*, 100–123. [CrossRef]
50. Tu, J.-C.; Zhang, X.-Y.; Chiu, S.-P. Assessing the Impact of Cultural Intelligence on Sustainable Career Competitive Advantage for Students in College of Design. *Sustainability* **2020**, *12*, 10. [CrossRef]
51. Beneroso, D.; Alosaimi, N. Cultural intelligence of chemical engineering students: A demographics study. *Educ. Chem. Eng.* **2020**, *32*, 32–39. [CrossRef]
52. Alexander, K.; Alexander, S.; Ingersoll, L.; Miller, M.; Shields, C.; Gipson, J.; Calahan, C. Evaluating an Intensive Program to Increase Cultural Intelligence: A Quasi-Experimental Design. *Front. Interdiscip. J. Study Abroad* **2021**, *33*, 106–128. [CrossRef]
53. Wang, C.; Shakespeare-Finch, J.; Dunne, M.P.; Hou, X.-Y.; Khawaja, N.G. How much can our universities do in the development of cultural intelligence? A cross-sectional study among health care students. *Nurse Educ. Today* **2021**, *103*, 104956. [CrossRef] [PubMed]
54. Al Dhaheri, A. Are school leaders culturally intelligent? Validation of the cultural intelligence (CQ) scale in the UAE. *J. Multicult. Educ.* **2022**, *16*, 121–132. [CrossRef]
55. Yüksel, A.; Ereş, F. The Correlation between Global Citizenship Perceptions and Cultural Intelligence Levels of Teachers. *Univers. J. Educ. Res.* **2018**, *6*, 1069–1076. [CrossRef]
56. Mahasneh, A.M.; Gazo, A.M.; Al-Adamat, O.A. Cultural Intelligence of the Jordan Teachers and University Students from the Hashemite University: Comparative Study. *Eur. J. Contemp. Educ.* **2019**, *8*, 303–314. [CrossRef]
57. Li, M. An examination of two major constructs of cross-cultural competence: Cultural intelligence and intercultural competence. *Personal. Individ. Differ.* **2020**, *164*, 110105. [CrossRef]
58. Chao, M.M.; Takeuchi, R.; Farh, J.L. Enhancing Cultural Intelligence: The Roles of Implicit Culture Beliefs and Adjustment. *Pers. Psychol.* **2017**, *70*, 257–292. [CrossRef]
59. Engle, R.L.; Crowne, K.A. The impact of international experience on cultural intelligence: An application of contact theory in a structured short-term programme. *Hum. Resour. Dev. Int.* **2014**, *17*, 30–46. [CrossRef]
60. Pekerti, A.A.; Arli, D. Do Cultural and Generational Cohorts Matter to Ideologies and Consumer Ethics? A Comparative Study of Australians, Indonesians, and Indonesian Migrants in Australia. *J. Bus. Ethics* **2017**, *143*, 387–404. [CrossRef]
61. Tarique, I.; Takeuchi, R. Developing cultural intelligence: The roles of international nonwork experiences. In *Handbook of Cultural Intelligence: Theory, Measurement, and Applications*; Ang, S., Dyne, L.V., Eds.; Sharpe, Inc.: London, UK, 2008; pp. 56–70.
62. Moon, H.K.; Choi, B.K.; Jung, J.S. Previous International Experience, Cross-Cultural Training, and Expatriates' Cross-Cultural Adjustment: Effects of Cultural Intelligence and Goal Orientation. *Hum. Resour. Dev. Quartterly* **2012**, *23*, 285–330. [CrossRef]
63. Templer, K.J.; Tay, C.; Chandrasekar, N.A. Motivational cultural intelligence, realistic job preview, realistic living conditions preview, and cross-cultural adjustment. *Group Organ. Manag.* **2006**, *31*, 154–173. [CrossRef]
64. Crowne, K.A. Cultural exposure, emotional intelligence, and cultural intelligence: An exploratory study. *Int. J. Cross Cult. Manag.* **2013**, *13*, 5–22. [CrossRef]
65. Ng, K.Y.; Dyne, L.V.; Ang, S. Cultural intelligence: A review, reflections, and recommendations for future research. In *Conducting Multinational Research: Applying Organizational Psychology in the Workplace*; Ryan, A.M., Leong, F.T.L., Oswald, F.L., Eds.; American Psychological Association: Columbia, WA, USA, 2012.
66. Erez, M.; Lisak, A.; Harush, R.; Glikson, E.; Nouri, R.; Shokef, E. Going Global: Developing Management Students' Cultural Intelligence and Global Identity in Culturally Diverse Virtual Teams. *Acad. Manag. Learn. Educ.* **2013**, *12*, 330–355. [CrossRef]
67. Rosenblatt, V.; Worthley, R.; MacNab, B. From contact to development in experiential cultural intelligence education: The mediating influence of expectancy disconfirmation. *Acad. Manag. Learn. Educ.* **2013**, *12*, 356–379. [CrossRef]
68. Ang, S.; Rockstuhl, T.; Tan, M.L. Cultural Intelligence and Competencies. *Int. Encycl. Soc. Behav. Sci.* **2015**, *5*, 433–439. [CrossRef]
69. Harrison, N. Investigating the impact of personality and early life experiences on intercultural interaction in internationalised universities. *Int. J. Intercult. Relat.* **2012**, *36*, 224–237. [CrossRef]

70. Robledo-Ardila, C.; Aguilar-Barrientos, S.; Román-Calderón, J.P. Education-Related Factors in Cultural Intelligence Development: A Colombian Study. *J. Teach. Int. Bus.* **2016**, *27*, 41–58. [CrossRef]
71. Hair, J.F.J.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis*, 8th ed.; Cengage Learning, EMEA: Hampshire, UK, 2019.
72. Tharapos, M.; O'Connell, B.; Dellaportas, S.; Basioudis, I. Are accounting academics culturally intelligent?: An empirical investigation. *Br. Account. Rev.* **2019**, *51*, 111–129. [CrossRef]
73. Triandis, H.C. Cultural intelligence in organizations. *Group Organ. Manag.* **2006**, *31*, 20–26. [CrossRef]
74. Dyne, L.V.; Ang, S.; Ng, K.Y.; Rockstuhl, T.; Tan, M.L.; Koh, C. Sub-Dimensions of the Four Factor Model of Cultural Intelligence: Expanding the Conceptualization and Measurement of Cultural Intelligence. *Soc. Personal. Psychol. Compass* **2012**, *6*, 295–313. [CrossRef]
75. Lina, Y.-c.; Chenb, A.S.-y.; Song, Y.-c. Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment. *Int. J. Intercult. Relat.* **2012**, *36*, 541–552. [CrossRef]
76. Ramalu, S.S.; Rose, R.C.; Kumar, N.; Uli, J. Doing business in global arena: An examination of the relationship between cultural intelligence and cross-cultural adjustment. *Asian Acad. Manag. J.* **2010**, *15*, 79–97.
77. Solomon, A.; Steyn, R. Cultural intelligence: Concepts and definition statements. *S. Afr. J. Bus. Manag.* **2017**, *48*, 67–74. [CrossRef]
78. Preda, O. Hofstede´s dimensions in Portugal. *Rom. Econ. Bus. Rev.* **2012**, *7*, 62–69.
79. Gião, H. Portuguese multicultural society in a comparative study. In *INTED2010 Proceedings*; IATED: Valencia, Spain, 2010; pp. 414–420.
80. Ribeiro, A. Erasmus at 30: Institutional Mobility at Higher Education in Perspective. In *The Palgrave Handbook of Youth Mobility and Educational Migration*; Cairns, D., Ed.; Springer International Publishing: Cham, Switzerland, 2022; pp. 177–185.
81. Emil, S.; Gökten, Ö. Exploring the Effect of Erasmus Program on Cultural Intelligence of University Students. *Hacet. Univ. J. Educ.* **2018**, *34*, 1–17. [CrossRef]
82. Wooda, E.D.; Peters, H.Y.Z.S. Short-term cross-cultural study tours: Impact on cultural intelligence. *Int. J. Hum. Resour. Manag.* **2014**, *25*, 558–570. [CrossRef]
83. McKay, S.; Lannegrand, L.; Skues, J.; Wise, L. International experience and cultural intelligence development: A longitudinal assessment of Australian and French exchange students. *Int. J. Intercult. Relat.* **2022**, *91*, 56–69. [CrossRef]
84. Takeuchi, R.; Tesluk, P.; Yun, S.; Lepak, D. An Integrative View of International Experience. *Acad. Manag. J.* **2007**, *48*, 85–100. [CrossRef]
85. Ott, D.L.; Iskhakova, M. The meaning of international experience for the development of cultural intelligence. *Crit. Perspect. Int. Bus.* **2019**, *15*, 390–407. [CrossRef]
86. Chena, A.S.-y.; Linb, Y.-c.; Sawangpattanakul, A. The relationship between cultural intelligence and performance with the mediating effect of culture shock: A case from Philippine laborers in Taiwan. *Int. J. Intercult. Relat.* **2011**, *35*, 246–258. [CrossRef]
87. Kour, S.; Jyoti, J. Cross-cultural training and adjustment through the lens of cultural intelligence and type of expatriates. *Empl. Relat. Int. J.* **2022**, *44*, 1–36. [CrossRef]
88. Tay, C.; Westman, M.; Chia, A. Antecedents and Consequences of Cultural Intelligence Among Short-Term Business Travelers. In *Handbook of Cultural Intelligence: Theory, Measurement, and Applications*; Ang, S., Dyne, L.V., Eds.; Sharpe: Armonk, NY, USA, 2008; pp. 126–144.
89. Ng, K.Y.; Dyne, L.V.; Ang, S. From Experience to Experiential Learning: Cultural Intelligence as a Learning Capability for Global Leader Development. *Acad. Manag. Learn. Educ.* **2009**, *8*, 511–526. [CrossRef]
90. Majda, A.; Zalewska-Puchała, J.; Bodys-Cupak, I.; Kurowska, A.; Barzykowski, K. Evaluating the Effectiveness of Cultural Education Training: Cultural Competence and Cultural Intelligence Development among Nursing Students. *Int. J. Environ. Res. Public Health* **2021**, *18*, 4002. [CrossRef]
91. Roux, P.W.; Suzuki, K.; Matsuba, R.; Goda, Y. Designing Instruction to develop Cultural Intelligence (CQ): Reporting on Blended Learning Outcomes at a Japanese University. *Int. J. Educ. Media Technol.* **2019**, *13*, 27–34.
92. Jyoti, J.; Kour, S. Factors affecting Cultural Intelligence and its Impact on Job Performance: Role of Cross-cultural Adjustment, Experience and Perceived Social Support. *Pers. Rev.* **2017**, *46*, 767–791. [CrossRef]
93. Hua, Z.; Carter, R.; Cook, G. *Exploring Intercultural Communication: Language in Action*, 2nd ed.; Routledge: New York, NY, USA, 2018. [CrossRef]
94. Fischer, R. Cross-cultural training effects on cultural essentialism beliefs and cultural intelligence. *Int. J. Intercult. Relat.* **2011**, *35*, 767–775. [CrossRef]
95. Taras, V.; Caprar, D.; Rottig, D.; Sarala, R.; Zakaria, N.; Zhao, F.; Jimenez, A.; Wankel, C.; Lei, S.; Minor, M.; et al. A Global Classroom? Evaluating the Effectiveness of Global Virtual Collaboration as a Teaching Tool in Management Education. *Acad. Manag. Learn. Educ.* **2013**, *12*, 414–435. [CrossRef]
96. Ng, K.-Y.; Tan, M.L.; Ang, S.; Burton, I.A.; Spender, J. Culture capital and cosmopolitan human capital: The impact of global mindset and organizational routines on developing cultural intelligence and international experiences in organizations. In *The Oxford Handbook of Human Capital*; Oxford University Press: Oxford, UK, 2011; pp. 96–119.
97. Frawley, J.; Russell, G.; Sherwood, J. Cultural Competence and the Higher Education Sector: A Journey in the Academy. In *Cultural Competence and the Higher Education Sector: Australian Perspectives, Policies and Practice*; Frawley, J., Russell, G., Sherwood, J., Eds.; Springer: Singapore, 2020; pp. 3–11.

98. Tailab, M.; Guerra, M. Self-reporting MBA key experience assessment: Evidence from Lincoln University. *Res. High. Educ. J.* **2017**, *33*, 1–16.
99. Burnett, S.-A.; Huisman, J. Universities' Responses to Globalisation: The Influence of Organisational Culture. *J. Stud. Int. Educ.* **2009**, *14*, 117–142. [CrossRef]
100. Souto-Otero, M.; Huisman, J.; Beerkens, M.; de Wit, H.; VujiĆ, S. Barriers to International Student Mobility: Evidence from the Erasmus Program. *Educ. Res.* **2013**, *42*, 70–77. [CrossRef]