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Exploring the Effect of Erasmus Program on Cultural Intelligence of University Students*

Erasmus Programı'nın Üniversite Öğrencilerinin Kültürel Zekaları Üzerindeki Etkisinin İncelenmesi

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ABSTRACT: The purpose of this quantitative causal-comparative research was to investigate the difference between cultural intelligence of university students who have participated in Erasmus Student Mobility program and of those who have not, while their personality trait "openness to experience" is controlled. Data were collected from 450 students at a public university in Ankara studying in different disciplines and at varying grade levels through survey: Cultural Intelligence Scale, and Openness to Experience sub-scale of Big Five Inventory Scale. MANCOVA results indicated that participating in Erasmus Program has a statistically significant effect on all sub-dimensions of cultural intelligence (metacognitive, cognitive, motivational, and behavioral), when openness to experience personality trait is controlled. Moreover, the results showed that openness to experience personality trait is a statistically significant covariate for the study.
Keywords: Cultural intelligence, Erasmus Student Mobility Program, openness to experience, Turkish university students, internationalization

ÖZ: Bu nicel-nedensel karşılaştırma çalışmasının amacı, kültürel zekâ değişkeninin Erasmus Öğrenim Hareketliliği Programı'na katılan ve katılmayan öğrenciler arasında farklılık gösterip göstermediğini, "deneyime açıklık" kişilik özelliğini kontrol altında tutarak incelemektir. Çalışmanın verileri, Ankara'da bir devlet üniversitesinde farklı bölümlerde ve sınıf seviyesinde öğrenim gören 450 üniversite öğrencisinden toplanmıştır. Çalışmada veri toplama araçları olarak araştırmacı tarafından Türkçeye uyarlanan Kültürel Zekâ Ölçeği ve Beş Faktör Kişilik Ölçeği – Deneyime Açıklık alt boyutu kullanılmıştır. Çok Değişkenli Kovaryans Analizinin (MANCOVA) sonuçları, Erasmus Öğrenim Hareketliliği Programı'na katılımın deneyime açıklık kişilik özelliği kontrol altında tutulduğunda, kültürel zekânın tüm alt boyutları üzerinde (üst-biliş, biliş, motivasyon ve davranış) istatistiksel olarak anlamlı bir etkisi olduğunu göstermiştir. Ayrıca sonuçlar, deneyime açıklık kişilik özelliğinin, bu çalışma için önemli bir eşdeğişken faktör olduğunu göstermiştir.
Anahtar Sözcükler: Kültürel zekâ, Erasmus Öğrenim Hareketliliği Programı, deneyime açıklık, Türkiyeli üniversite öğrencileri, uluslararasılaşma

1. INTRODUCTION

In the past, the only people having intercultural interactions were those who traveled abroad or lived in metropolitans; yet, since the beginning of the 21st century, more people than

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ever are having cross-cultural experiences in their social and professional lives. Thus, for people to carry out those intercultural interactions successfully have become more important (Lopes-Murphy, 2014). Moreover, as a reflection of the globalized world, business organizations are also becoming more diverse, and employers look for employees, who are more competent and effective in intercultural contexts (Kennedy, 2012).

During 21st century, *globalization* has started to show its impact on higher education institutions (HEIs) as well as on other aspects of life. With the effect of globalization, including economic, political, and societal forces, higher education is being pushed towards a greater international involvement. Moreover, policies and implementations made by academic institutions, or even by individuals, in order to compete in world-wide academic environment is described as *internationalization*, and in that sense it is different from globalization (Altbach & Knight, 2007). As globalization creates a mass demand in higher education, internationalization gives HEIs various opportunities to develop policies and implement those policies in order to benefit from this new world, where there are now more cross-cultural interactions than ever. Internationalization of higher education is highly extensive, and there are lots of ways to achieve it: branch campuses, study abroad programs, cross-border agreements, international student programs, English-medium instruction, and so on are just a few of these initiatives (Altbach & Knight, 2007).

One of these initiatives in the European context is Erasmus (European Action Scheme for the Mobility of University Students) Student Mobility Program started in 1987 (Arkalı Olcay & Nasır, 2016). The main purposes of the program were to increase student and academic mobility between European countries, and to increase economic and political integration; however, it is seen that it leads to increasing quality of higher education, as well (Altbach & Knight, 2007). Moreover, as Bologna process harmonizes the academic systems, and with fast developing technology, students who study abroad drastically increased in recent years. Only during last four years (from 2013 to 2017), 11.341 university students in Turkey have studied abroad, and 13.649 international students have come to Turkey to study within the scope of Erasmus Program (YÖK, 2018).

Several studies examining the motives of students for participating Erasmus Student Mobility Program found these factors, in particular: the desire to learn a new language, to get to know a new culture and new people, the curiosity related to living and education systems of other countries, the need for professional training in another country, and the need to meet with other cultures (Dolga, Filipescu, Popescu-Mitroi, & Mazilescu, 2015; Fombona, Rodrigues, & Sevillano, 2013). And one of the most effective ways to improve an individual's cultural intelligence is to create international immersion experiences (Black & Duhon, 2006; Gullekson & Tucker, 2013).

Research showed that to be "culturally intelligent" and competent, people need to develop some behaviors, skills, and qualities that can be enhanced. Zapata (2011) said that engaging in face-to-face interactions with people who represent different cultures, beliefs, and values (Zapata, 2011) is one effective way of developing one's self because living in different cultures allows individuals to build cultural consciousness, awareness, and knowledge. By being exposed to different cultures, individuals get various chances to assess their own cultural assumptions; they recognize their thinking and communicating processes, and they get a chance to appreciate the similarities and differences between cultures. A research study that was conducted with military personnel indicated that a six-month international assignment had a significant effect on developing cultural intelligence (Şahin, Gürbüz, & Köksal, 2014).

Tarique and Takeuchi (2008) argued that international non-work related experiences, such as study abroad programs or internships, enable students to develop skills helping them perform more effectively in different intercultural contexts. Studying abroad or even short visits to foreign

countries may increase individuals' ability to learn necessary skills and behaviors that are crucial for living or working in different cultural contexts. Moreover, another study conducted by Engle and Crowne (2014, as cited in Robledo-Ardila, Aguilar-Barrientos, & Roman-Calderon, 2016), demonstrated that even a short-term international experience increases all four factors of CQ of undergraduate students from a variety of majors. Similarly, the study conducted with participants who returned from studying abroad, showed that study abroad experience drastically expands employability, since when students have returned to their home country, they become more self-confident, they are better at job interviews, they are more adaptable to new situations, and they are more used to deal with people from different backgrounds (King, Findlay, & Ahrens, 2010).

Going global also means that distance between countries, regions, and people are becoming smaller, interaction between people from various cultures and countries are becoming more possible than ever (Raikhan, Moldakhmet, Ryskeldy, & Alua, 2014). However; understanding, tolerating, and being respectful to others who are different take more than just being present in a certain place together or being very fluent in the same language. Cultural intelligence (CQ) is the phenomenon that is regarded as one of the essential skills. In general terms, cultural intelligence is the "ability to make oneself understood and the ability to create a fruitful collaboration in situations where cultural differences play a role" (Plum, 2007); in other words it is "a person's capability to adapt effectively to new cultural contexts" (Earley & Ang, 2003, p. 59).

Cultural intelligence has four main factors; cognitive, metacognitive, motivational, and behavioral. In general, *cognitive cultural intelligence* is knowing about the cultures, norms, practices, and values. It is related to the appreciation of the differences and of similarities between different cultures. *Metacognitive cultural intelligence* is associated with awareness, planning, and monitoring. It involves making sense of one's diverse cultural experiences, and the level of conscious cultural awareness during cross-cultural interactions. *Motivational cultural intelligence* is basically the desire to learn about other cultures. It determines the energy that individuals are willing to direct towards intercultural interactions. Lastly, *behavioral cultural intelligence* is related to adjusting one's verbal and nonverbal behavior in various contexts, which involve people from disparate cultures. (Keung, 2011; Van Dyne, Ang, & Livermore, 2009). Individuals with high level of behavioral CQ tend to demonstrate culturally appropriate gestures, facial expressions, and use appropriate verbal communication.

Additionally, cultural diversity refers to the differences between cultures that can be found in societies in a specific region, or in the world as a whole (Ahmadi, Shahmohammadi, & Araghi, 2011). Pedersen (1991), while defining multiculturalism, includes ethnographic variables such as race, ethnicity, language, and religion; demographic variables such as age, gender, and the place that individuals live; and status related variables such as educational background, social and economic background. Recent studies (Dines & Humez, 2011; Ponterotto, Casas, Suzuki, & Alexander, 2010) have also considered multiculturalism as a phenomenon that includes race, ethnicity, social class, religion, age, and sexual orientation. In light of these, each relationship even in a single society can be considered as a multicultural experience. Disputes in such a diverse world are inevitable; however, trying to overcome contradictions is crucial. While coping with disputes, cultural intelligence can be benefitted from. Individuals who have higher level of CQ tend to be more effective in multicultural interactions; they are more likely to form cooperative relationships, and be more agreeable and flexible (Groves, Feyerherm, & Gu, 2015). Studies also suggest that culturally intelligent people are more effective leaders (Alon & Higgins, 2005; Ang & Inkpen, 2008; Deng & Gibson, 2009; Ismail, Reza, & Mahdi, 2012). Since being culturally intelligent is very important in professional life, it is significant to improve cultural intelligence of young adults in preparation for life after college.

To graduate more competent, effective, and culturally intelligent individuals, universities need to incorporate strategies that help students develop their cultural intelligence. This can be

done by various classroom strategies, materials, and curricula. However, just learning about the other cultures cannot be enough to be culturally intelligent. Learning about cultures develops students' cognitive cultural intelligence; however, in order to be effective in intercultural situations, one needs to develop all four factors of cultural intelligence. That is why; universities and educators must provide opportunities for students to gain personal experiences. A study done in Colombia with undergraduate students demonstrated that second language proficiency and extracurricular activities caused a significant enhancement in cultural intelligence of students (Robledo-Ardila, Aguilar-Barrientos, & Roman-Calderon, 2016).

Another factor affecting living abroad experiences is the individuals' personality. Personality is unique to every individual no matter where people are from; the same country or same family. A person's family, genes, culture, relationships, upbringing, education, and life experiences can form his/her personality altogether. Culture plays a big role on affecting personality. When a college student leaves to study abroad, his/her ability to adopt himself/herself subjectifies whole experience. That is why, while correlating cultural intelligence with studying abroad experiences, personality traits must be considered, as well. "Big Five Personality Traits", which are conscientiousness, agreeableness, neuroticism, extraversion, and openness to experience, were used in this study (Hofstede & Hofstede, 2005, pp. 93-94). While it is certain that all personality traits play an important role on determining cultural intelligence, previous research showed that all four factors of cultural intelligence, which are cognitive, metacognitive, motivational, and behavioral CQ, are significantly related only to openness to experience (Ang, Van Dyne, & Koh, 2006).

Therefore, the purpose of this study is to investigate the effect of participating in Erasmus Student Mobility Program on cultural intelligence of university students after controlling for the effect of personality trait "openness to experience". The research question of the study is: "What is the difference between university students who have participated in Erasmus Student Mobility Program and students who have never studied abroad on their cultural intelligence when personality trait "openness to experience" is controlled?" And therefore, the hypothesis of the study is: "There is statistically significant difference between university students who attended Erasmus Student Mobility Program and those who did not in terms of their cultural intelligence when personality trait "openness to experience" is controlled".

2. METHOD

2.1. Population and Sample

This quantitative research utilized as a causal-comparative research design, because causal-comparative studies aim to determine the cause or consequences of differences that already exist between or among groups. In these types of studies, independent variables are not manipulated, and generally, one group possesses a characteristic that the other one does not (Fraenkel, Wallen, & Hyun, 2011). In this study, the aim was to determine an already existing difference between two student groups: one with Erasmus experience, the other has not. This study was a retrospective causal-comparative research, in which there was a particular research question investigating an effect that has already occurred before the research has started. In this study, one group did not participate in Erasmus exchange program, and the other group has already studied abroad and returned to their home country.

The population in this study was all students in comprehensive public universities in the capital city of Turkey, Ankara, and the sample was drown from the university based on convenience sampling method. The sample consisted of two groups of participants: the university students who returned to Turkey after 3 to 12 months period of studying abroad with Erasmus program and those who did not participate in Erasmus Student Mobility Program, and who have not been abroad for educational purposes.

This study consisted of two parts: first, the pilot studies both for Cultural Intelligence Scale and Big Five Inventory Scale – Openness to Experience Subscale were conducted to provide validity and reliability evidence. The scales were administered to total of 297 students (52 freshmen, 19 sophomore, 27 junior, 153 senior, and 46 graduate level students). Among the participants, 194 of them (65.3%) were female, 97 of them (32.7%) were male, and 6 students (2%) did not indicate their sex. The age range for the participants was between 18 and 34. 148 of the students (50%) have participated in the Erasmus Student Mobility program, and 149 of them (50%) have not. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed through SPSS 23 and AMOS to discover and verify the factor structures of the scales.

For the second part, 450 students who were not included in the pilot were included in the study. 256 of the students (56.9%) were female, 187 (41.6%) were male, and 5 students (1.1%) did not indicate sex. The age of participants ranged from 18 to 34, with a mean of 22. Among participants, 3 students (.7%) were in their freshman year, 219 (48.7%) were sophomores, 83 (18.4%) were juniors, 105 (23.3%) were seniors, and finally 40 (8.9%) were graduate level students. 19 (4.2%) students' CGPA were between 0.00-.1.99, 167 (37.1%) students' were between 2.00-2.99, 143 (32%) students' were between 3.00-3.49, and 120 (26.7%) students' were between 3.50-4.00. Moreover, 128 (28.4%) of the participants have participated in Erasmus Student Mobility Program during last three academic years and 322 (71.6%) of them have not participated in the program. Table 1 shows the descriptive statistics for the sample.

Table 1. Descriptive statistics for the sample

	N	% Percentage
Sex		
Female	256	56.9%
Male	187	41.6%
Did not indicate	5	1.1%
Grade		
Freshmen	3	.7%
Sophomore	219	48.7%
Junior	83	18.4%
Senior	105	23.3%
Graduate level	40	8.9%
CGPA		
0.00-1.99	19	4.2%
2.00-2.99	167	37.1%
3.00-3.49	143	32%
3.50-4.00	120	26.7%
Departments		
Fac. of architecture	12	2.7%
Fac. of arts and sciences	68	15.1%
Fac. of economic and administrative sciences	113	25.1%
Faculty of education	114	25.3%
Faculty of engineering	107	23.8%
Graduate school of social sciences	23	5.1%
Graduate school of natural and applied sciences	8	1.8%
Graduate school of informatics	3	.7%
Have they participated in Erasmus?		
Yes	128	28.4%
No	322	71.6%

2.2. Data Collection Instruments

Demographic Information Survey: This part consisted of 10 questions to examine the characteristics of the participants in detail. The categorical variables were gender, department (their major), grade (year of their undergraduate/ graduate study), cumulative grade point average (CGPA), and whether they have participated in Erasmus Student Mobility Program, or not. If the

participant went abroad within the scope of Erasmus Student Mobility Program, then s/he indicated when s/he participated in the program (which academic year). Moreover, the continuous variable was age.

Cultural Intelligence Scale: In order to measure cultural intelligence, Cultural Intelligence Scale (Cultural Intelligence Center, 2005) was adapted into Turkish. The scale has 20 items, and it aims to measure participants' cultural intelligence in terms of four dimensions: cognitive, metacognitive, motivational, and behavioral. The adaptation of the scale into Turkish was made by the researcher. In order to adapt the scale, English – Turkish and Turkish – English translations and back translations were made, and two other experts were consulted. Sample items from the scale include "Diğer kültürlerin dini inançlarını ve kültürel değerlerini bilirim. / I know the cultural values and religious beliefs of other cultures" and "Sözel olmayan davranışlarımı kültürlerarası etkileşimin gereklerine göre değiştirebilirim / I change my non-verbal behavior when a cross-cultural interaction requires it". The Turkish translations of the items are provided in the Appendix.

First, EFA was conducted. Since the Cultural Intelligence scores were obtained from the 7-point Cultural Intelligence scale confirm the metric variable assumption. Based on the criteria of Tabachnick and Fidell (2013), standardized scores should not exceed the value of 3.29; therefore, outliers were detected and removed. For the normality assumption, first, the univariate normality was checked through skewness and kurtosis values, Kolmogorov-Smirnov and Shapiro-Wilk statistical tests, histograms, and Q-Q plots. Although Kolmogorov-Smirnov and Shapiro-Wilk tests were significant indicating non-normality of data, other values were examined as these tests are too sensitive, and finding significant results even from small deviations is inevitable if the sample size is large as the biggest limitation of these tests (Field, 2009). Skewness and kurtosis values were close to zero, within the boundaries of -3.0 and 3.0. Histograms and Q-Q plots did not display serious concern for non-normality. Consequently, multivariate normality was checked with Mardia's Test through SPSS Macro. The Mardia's result ($b2p$ = 529.44, $p < .001$) was significant showing that multivariate normality assumption was violated. Therefore, Principal Axis Factoring (PAF) extraction method with direct oblimin rotation was used (Tabachnick & Fidell, 2013) assuming that the expected factors would be correlated to each other (Costello & Osborne, 2005).

Results showed that there were no items that correlated with other items with a value below .30 or above .90 for each scale, except items B 2 (Behavioral Cultural Intelligence 2) and C 2 (Cognitive Cultural Intelligence 2). Barlett's Test of Sphericity result was significant ($\chi 2$ (190) = 2193.20, $p < .05$). KMO value (1974; as cited in Field, 2009) should be minimum .50 while values within the boundary of .50 -.70, .70 -.80, .80 -.90, and above .90 to reflect mediocre, good, great, and superb aspect of the sample size adequacy, respectively. KMO value was .86. Catell's Scree test and eigenvalue criterion were examined to determine the retained number of factors. The breakpoint of the plot reflected five-factor dimensions. When the factor loadings are inspected, some items were detected with very low factor loadings. And although the scree plot and eigenvalues indicated 5 factors, it was seen that the fifth factor had no items. Therefore, item C 2 (Cognitive Cultural Intelligence 2) with a factor loading of .27 and item B 2 (Behavioral Cultural Intelligence 2) with a factor loading of .22 were removed from the scale, and the analysis was run one more time. After two items were deleted, the eigenvalue suggested four factors, in compliance with the original scale. The results indicated that four factors of CQ explained 61.87% of the variance. Factor loadings of the remaining items were between .40 and .87, and provided in Table 2 below. Besides, Cronbach's alpha coefficient was calculated for internal consistency estimates. The values for Metacognitive (CQ), Cognitive (CQ), Motivational (CQ), and Behavioral (CQ) were found to be .77, .83, .84, and .79, respectively indicating good reliability for the scale.

Table 2. Factor loadings for the Cultural Intelligence Scale

Item	Factor Loading			
	1	2	3	4
MC1	.87			
MC2	.45			
MC3	.80			
MC4	.42			
C1		-.56		
C3		-.67		
C4		-.76		
C5		-.79		
C6		-.53		
M1			.63	
M2			.70	
M3			.79	
M4			.78	
M5			.65	
B1				.40
B3				.52
B4				.80
B5				.85

After the factor structure is analyzed, CFA was conducted with 18 items of the scale using AMOS. CFA with Maximum Likelihood estimation indicated chi-square value (χ^2 = 292.82, p = .00) with the comparative fit index (CFI) value of .95, normed fit index (NFI) value of .89, chi-square divided by the degree of freedom (df) value (CMIN/DF) of 2.27, and root mean square error of approximation (RMSEA) value of .07 which indicated a fair fit (Browne & Cudeck, 1993). Moreover, the standard estimates of the items range from .52 to .90, and the reliability coefficients were .79, .82, .84, and .80 for metacognitive (CQ), Cognitive (CQ), Motivational (CQ), and Behavioral (CQ), respectively.

Big Five Inventory Scale – Openness to Experience Subscale: The second scale used is the Big Five Inventory (John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008), and the scale was adapted and translated to Turkish by the researcher. In order to adapt the scale, English – Turkish and Turkish – English translations and back translations were made, and two other experts were consulted. In this study, only "openness to experience" trait scores are taken into account. In openness to experience part, there are 10 items. Sample items from the scale include "Orjinal biriyim, yeni fikirler üretirim / I see myself as someone who is original, comes up with new ideas" and "Sanatsal ve estetik şeylere önem veririm. / I see myself as someone who values artistic, aesthetic experiences".

Since the Openness to Experience is continuous, the scores obtained from the 5-point scale confirm the metric variable assumption. Based on the criteria of Tabachnick and Fidell (2013), standardized scores should not exceed the value of 3.29; therefore, outliers were detected and removed. For the normality assumption, first, the univariate normality was checked through skewness and kurtosis values, Kolmogorov-Smirnov and Shapiro-Wilk statistical tests, histograms, and Q-Q plots. According to the results, Kolmogorov-Smirnov and Shapiro-Wilk tests were significant indicating non-normality of data. Skewness and kurtosis values were very close to zero. Histograms and Q-Q plots also displayed concern for normality. Consequently, multivariate normality was checked with Mardia's Test through SPSS Macro. The Mardia's result for ($b2p$ = 144.98, $p < .001$) was significant showing that multivariate normality assumption was violated. Therefore, Principal Axis Factoring (PAF) extraction method with direct oblimin rotation was used (Tabachnick & Fidell, 2013).

Since the factor analysis was exercised on one existing factor (Openness to Experience), number of factors was fixed to one. When the factor loadings are inspected, some items were detected with very low factor loadings. Therefore, items 2 and 7, with factor loadings of .35 and

.34, respectively, were removed from the scale. Barlett's Test of Sphericity result was significant ($x2(45) = 884.44$, $p < .05$). KMO value was .79. After the items 2 and 7 are removed from the scale, EFA was run one more time. Barlett's Test of Sphericity result was significant ($x2(28) = 817.318$, $p < .05$). KMO value was .77 and one factor explained 40.38% of the variance. Factor loadings of the items were between .45 and .71, and provided in Table 3 below. Moreover, Cronbach's alpha coefficient was calculated for internal consistency estimates. The value for Openness to experience found to be .78 indicating good reliability for the scale.

Table 3. Factor loadings for the Openness to Experience Subscale

Item	Factor Loading 1
O1	.66
O3	.49
O4	.58
O5	.71
O6	.54
O8	.51
O9	.45
O10	.54

After EFA, CFA was conducted using AMOS. CFA results indicated chi-square value ($\chi^2 = 256.20$, $p = .00$) with the comparative fit index (CFI) value of .89, normed fit index (NFI) value of .81, chi-square divided by the df value (CMIN/DF) of 2.71, and root mean square error of approximation (RMSEA) value of .08. The standard estimates range from .42 to .88, and the reliability coefficient was .76 for the openness to experience factor.

2.3. Data Analysis

The main data analysis: descriptive and inferential analyses were conducted by using SPSS 23 in order to analyze data and interpret the results. The data were analyzed to examine if the differences between groups are statistically significant or if they have occurred coincidentally. For this purpose, assumptions of MANCOVA were checked and the data analysis was performed.

Univariate and bivariate normality assumptions were checked and validated through histograms, Q-Q Plots, and skewness-kurtosis and verified. Furthermore, multivariate normality assumption was inspected through Mardia's test. Mardia's Test result was significant ($b2p = 21.65$, $p < .001$), indicating deviations from normality. However, as the sample size was large, it was decided to continue with the analysis. Univariate and multivariate outliers were detected through z-scores and Mahalanobis distances. Based on the criteria of Tabachnick and Fidell (2013), standardized scores exceeding 3.29 were removed since they indicate outliers. Mahalonobis distances were checked through extreme values table provided by SPSS. In order to check Mahalonobis distance, first, the critical value for this dataset was found from chi-square table (Barnett & Lewis, 1978). When alpha level is set to .001, the critical value for 4 predictors was 18.47. There were no cases indicating the violation, hence the assumption was verified. Linearity assumption was checked through scatter plot and verified. For multicollinearity assumption, VIF and tolerance values provided by SPSS were checked. According Tabachnick and Fidell (2013), VIF values greater than 5, and tolerance values smaller than .20 indicate multicollinearity, and violates the assumption. VIF values were between 1.44 and 2.06, and tolerance values were between .49 and .69, validating the assumption.

In order to check homogeneity of variance-covariance matrices Box's Test of Equality of Covariances Matrices was used, Box's M = 47.97, F (10, 292418.21) = 4.74, $p < .05$, indicating violation. Therefore, Pillai's Trace, instead of Wilk's Lambda was used. In order to check homogeneity of variance, Levene's test results were checked. The assumption was validated for metacognitive CQ, F (1,450) = 3.10, $p > .05$, and for behavioral CQ, F (1,450) = 3.76, $p > .05$; but violated for cognitive CQ, F (1,450) = 11.36, $p < .05$, and motivational CQ, F (1,450) =

10.66, $p < .05$. For cognitive and motivational CQ, the alpha value was set to a more stringent .04 value. For univariate tests, .05 and .04 alpha values were adjusted by applying Bonferroni corrections. As there are four dependent variables in the study, the new alpha value for metacognitive and behavioral CQ was accepted as .012 and for cognitive and motivational CQ as .01. Moreover, in order to check for the assumption of homogeneity of regression slopes, the interaction between the independent variable (Erasmus experience) and the covariate (openness to experience) was analyzed. The results indicated the validation of the assumption, since there were no significant interactions Pillai's T = .38, F (4,445) = 1.04, p = .38.

3. FINDINGS

In this study, the research question is stated as "What is the difference between university students who have participated in Erasmus Student Mobility Program and those who have never studied abroad on their cultural intelligence when personality trait "openness to experience" is controlled?" The results showed that the overall cultural intelligence level of students who participated in Erasmus program is significantly greater than the students who did not participate in the program. Moreover, the results indicated that university students' personality affects their Erasmus experience and is a statistically significant covariate for cultural intelligence.

According to the results, Erasmus experience was significant, Pillai's T=.12, F (4,446) = 15.51, $p < .05$, η^2=.12, meaning that 12% of the variance is explained by Erasmus experience. Moreover, openness to experience was also significant, Pillai's T=.15, F (4,446) = 19.73, $p < .05$, η^2=.15, meaning that 15% of the variance is explained by openness to experience personality trait. Table 4 and Table 5 represent the multivariate test results and ANCOVA results, respectively, for cultural intelligence.

Table 4. Multivariate tests for cultural intelligence

Effect		Value	*F*	Hypothesis df	Error df	*p*	η2
Erasmus	Pillai's Trace	.12	15.51	4	446	.00	.12
Openness to exp.	Pillai's Trace	.15	19.73	4	446	.00	.15

Table 5. ANCOVA Results

Source	DV	df	Mean Square	*F*	*p*	η2
Erasmus	MC_CQ	1	22.18	24.37	.00	.05
	Cog_CQ	1	32.21	33.34	.00	.07
	Mot_CQ	1	43.86	42.22	.00	.09
	Beh_CQ	1	46.55	35.57	.00	.07
Openness to exp.	MC_CQ	1	56.32	61.90	.00	.12
	Cog_CQ	1	28.44	29.44	.00	.06
	Mot_CQ	1	50.26	48.37	.00	.10
	Beh_CQ	1	52.22	39.91	.00	.08

According to the results of univariate tests, Erasmus experience had a significant effect on metacognitive CQ, F (1,449) = 24.37, $p < .0125$, η^2 = .05, meaning that 5% of the variance of metacognitive CQ is explained by Erasmus experience. Erasmus experience also had a significant effect on cognitive CQ, F (1,449) = 33.34, $p < .01$, η^2=.07, meaning that 7% of the variance of cognitive CQ is explained by Erasmus experience. Erasmus experience also had a significant effect on motivational CQ, F (1,449) = 42.22, $p < .01$, η^2=.09, meaning that 9% of the variance of motivational CQ is explained by Erasmus experience. Moreover, Erasmus experience had a significant effect on behavioral CQ, F (1,449) = 35.57, $p < .0125$, η^2=.07, meaning that 7% of the variance of motivational CQ is explained by Erasmus experience.

For the covariate, openness to experience, the results showed that it has a significant effect on all factors of CQ: for metacognitive CQ, F (1,449) = 61.90, $p < .0125$, η^2=.12, meaning that 12% of the variance of metacognitive CQ is explained by openness to experience; for cognitive

CQ, F (1,449) = 29.44, $p < .01$, η^2=.06, meaning that 6% of the variance of cognitive CQ is explained by openness to experience; for motivational CQ, F (1,449) = 48.37, $p < .01$, η^2=.10, meaning that 10% of the variance of motivational CQ is explained by openness to experience; and finally for behavioral CQ, F (1,449) = 39.91, $p < .0125$, η^2=.08, meaning that 8% of the variance of behavioral CQ is explained by openness to experience.

Table 6 below represents the means and standard deviations for dependent variables without controlling for openness to experience and Table 7 represents the estimated marginal means and standard errors for dependent variables after controlling for openness to experience. The results indicate that students who participate in Erasmus program have a higher metacognitive CQ (M = 5.90, SE = .08) compared to students who did not participate in Erasmus program (M = 5.40, SE = .05). Moreover, their cognitive CQ is higher (M = 4.81, SE = .09) compared to students who did not participate in the program (M = 4.22, SE = .06). The results also showed that students' motivational CQ is higher when they participate in Erasmus program (M = 6.15, SE = .06) than students who did not participate in the program (M = 5.46, SE = .06). Finally, students who participate in Erasmus program have a higher behavioral CQ (M = 5.56, SE = .10) compared to students who did not participate in Erasmus program (M = 4.84, SE = .06).

Table 6. Means for DVs without controlling for openness to experience

	Erasmus experience			
	Yes		No	
DV	M	SD	M	SD
Metacognitive CQ	5.96	.85	5.38	1.08
Cognitive CQ	4.86	.86	4.20	1.07
Motivational CQ	6.21	.82	5.43	1.16
Behavioral CQ	5.62	1.02	4.82	1.25

Table 7. Estimated marginal means for DVs after controlling for openness to experience

	Erasmus experience			
	Yes		No	
DV	M	SE	M	SE
Metacognitive CQ	5.90	.08	5.40	.05
Cognitive CQ	4.81	.09	4.22	.06
Motivational CQ	6.15	.06	5.46	.06
Behavioral CQ	5.56	.10	4.84	.06

4. DISCUSSION and CONCLUSION

MANCOVA was conducted to see the effect of Erasmus experience on cultural intelligence, after controlling for personality trait openness to experience. The results of the analysis showed that openness to experience is a significant covariate for affecting all factors of cultural intelligence ($p < .0125$ for metacognitive CQ; $p < .01$ for cognitive CQ; $p < .01$ for motivational CQ; and $p < .0125$ for behavioral CQ). Moreover, the results indicated that the main effect of participating in Erasmus Program is significant. University students who participate in the Erasmus Program have higher levels of metacognitive, cognitive, motivational, and behavioral CQ, compared to students who have not studied abroad. Participating in Erasmus Program explained 5% of variance on metacognitive; 7% of variance on cognitive; 9% of variance on motivational; and 7% of variance on behavioral CQ, all moderate effects according to Cohen (2003).

The results of this study are in line with previous research (Black & Duhon 2006; Zapata, 2011), indicating that international immersion experience is one of the effective ways to increase cultural intelligence. The results indicated that in order to increase university students' cultural intelligence, higher education institutions need to create opportunities for them to expose to different cultures. The study was conducted in a public university Ankara, where the medium of

instruction is English, and there are many international students and instructors that students can experience different cultures through them. However, the results showed that even though the students are exposed to other cultures in campus during their daily lives, living in a different culture within the context of Erasmus Program creates a significant difference in their cultural intelligence.

According to the results, Erasmus experience affects motivational CQ the most. Since the students who live in a different culture experience new things, meet new people, and interact with a different language, this may increase their motivation towards other cultures, through increasing their self-esteem. Moreover, following motivational CQ, cognitive and behavioral CQs are also affected by the study abroad experience. While students are abroad, they get to see the similarities and differences between cultures, they learn other cultures' norms, values, and they get to adapt their verbal and non-verbal communication skills according to the necessities of intercultural interaction. Although Erasmus experience affects metacognitive CQ significantly, it has the least effect on it, compared to other factors. It can be argued that since metacognitive CQ is about awareness, planning, and monitoring, it requires higher level skills, and it is more difficult to enhance it with short-term experiences.

A study conducted by Thomas & Inkson (2017) argued that three of the reasons for intercultural failures are caused by being unaware of cultural biases, not making sense of one's behavior, and experiencing culture shock. Their study is beneficial in understanding why Erasmus program is more effective for cultural intelligence. It is clear that upon the first contact with people from another culture, experiencing culture shock is possible; yet, after a certain period of time, as people get to know the other culture, they start to identify similarities and differences between cultures, cultural and behavioral norms; and the effect of culture shock steadily decreases. Thomas and Inkson's (2017) study can be an explanation for why students who had returned from Erasmus program gave higher scores to themselves in the present study for cultural intelligence self-reports: because the Erasmus experience lasted for at least 3 months, students got to really "live" another culture. As students continue their education in a host institution, take courses with local students, shop in local markets, and live in houses or dormitories with local students, they really see how others behave, interact, and more importantly, they get to understand "why" they behave or speak in the way they do.

The results of the present study are also partially in line with Zapata's (2011) study, suggesting that one of the most effective ways to develop intercultural abilities is to engage in face to face interactions with people from other cultures. Since the participants in the present study, even the ones who have not participated in the Erasmus program, have the chance to interact with people from other cultures in their home university, it did not necessarily increase their cultural intelligence as much as it did for the students who participated in the Erasmus program. It can be argued that the duration and the content of face-to-face interactions are important determinants in developing higher level of cultural intelligence. It is implicated that just casually talking to a person from another culture may not be enough to learn their cultural norms or to understand behavior patterns. Rather, experiencing another culture and having face-to-face interactions in an authentic context actually leads to increasing metacognitive and behavioral skills.

Tarique and Takeuchi's (2008) study argues that international non-work related experiences, even for a short time, enable students to develop skills and abilities to perform more effectively in intercultural contexts. It can be deduced that the present study is parallel with previous research, because the results showed that students who participated in Erasmus Student Mobility Program have higher levels of cultural intelligence compared to students who have never studied abroad. Especially, as their behavioral cultural intelligence scores are significantly

higher, meaning that participating in Erasmus Student Mobility Program helped students to develop skills and abilities to communicate more effectively in multicultural contexts.

Moreover, the results of the present study implicated that participating in Erasmus Student Mobility program, living in another culture, increased students' behavioral skills. In that sense, the results are in line with King, Findlay, & Ahrens (2010) study indicating that Erasmus students are more adaptable to new situations, and they are more used to deal with people from other cultures. The present study also found that students who have returned from the Erasmus mobility are more likely to adapt their verbal and non-verbal behavior according to the requirements of the multicultural contexts.

Ang, et al.'s (2006) study stating that personality trait "openness to experience" is related to all four factors of cultural intelligence (metacognitive, cognitive, motivational, and behavioral) is in line with the present study's results. As mentioned in results, openness to experience personality trait has a statistically significant effect on metacognitive, cognitive, motivational, and behavioral cultural intelligence.

There are several limitations of the study. First of all, the study was conducted in a university, in which the medium of instruction is English, and there are around two thousand international people coming from all around the world. As a result, the students in the university are continuously exposed to other cultures in the campus. Moreover, some of the students who did not participate in Erasmus Program have been abroad for touristic or other purposes, and they have experienced living in other cultures. Therefore, the study can be repeated with other samples; the students who are not exposed to other cultures or never visited other countries. Second, the sample sizes for students who participated in Erasmus Program are not equal in this study. Although the assumptions of MANCOVA were validated, other studies can be conducted with greater sample sizes.

As for the implications of the study, it is seen that participating in Erasmus Program increases all factors of cultural intelligence significantly. To graduate students who will be more competent and self-confident in intercultural contexts, and who will be more respectful towards cultural differences in their country or around the world, university students need be provided with such opportunities. There should be international cooperation offices in universities that guide students who are motivated to participate in Erasmus Program, and the budget provided to universities should be increased for students to receive studying abroad grants. Nevertheless, the results of this study indicated that personality trait openness to experience is an important factor. Therefore, international cooperation offices in universities can also guide students by paying attention to their personality traits. For example, students who formerly studied abroad can give briefs to students who will participate in the program; they can explain what to or not to expect from the studying abroad experience, what to or not to do while abroad, how some students with anxiety, shyness, etc. may feel while abroad and how they can overcome those challenges.

Finally, within the scope of higher education studies, the results of this study provide some suggestions for Student Affairs and university administrators. Since HEIs are assumed to have major impact on university students' lives, the development of cultural intelligence for those who do not have the opportunity to engage in Erasmus experience needs to be addressed. The Student Affairs administrators and International Offices can cooperate to provide systematic and organized cultural exchange opportunities in their institutions by engaging existing international students with the domestic ones. This would allow both domestic and international students develop some level of awareness towards cultural intelligence without experiencing Erasmus and help to integrate international students more to their given settings.

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APPENDIX A. CULTURAL INTELLIGENCE SCALE

The items of the cultural intelligence scale that were adapted to Turkish by the researchers are provided below.

MC1. Farklı kültürel geçmişe sahip insanlarla etkileşim kurarken kullandığım kültürel bilgilerin farkındayım.
MC2. Bana yabancı bir kültürden gelen insanlarla etkileşim kurarken kültürel bilgimi karşımdakilere göre ayarlarım.
MC3. Kültürlerarası etkileşimlerde kullandığım kültürel bilgimin farkındayım.
MC4. Farklı kültürlere sahip insanlarla etkileşim halindeyken, kültürel bilgilerimin doğruluğunu kontrol ederim.
C1. Diğer kültürlerin yasal ve ekonomik sistemlerini bilirim.
C2. (deleted item) Ana dilim dışındaki en az bir dilin kurallarını (örneğin; kelime bilgisi, dil bilgisi) bilirim.
C3. Diğer kültürlerin dini inançlarını ve kültürel değerlerini bilirim.

C4. Diğer kültürlerin evlilik yapılarını bilirim.
C5. Diğer kültürlerin sanat ve zanaatlarını bilirim.
C6. Diğer kültürlerin sözel olmayan davranışları (jest ve mimik) ifade etme şekillerini bilirim.
M1. Farklı kültürden insanlarla etkileşim kurmaktan zevk alırım.
M2. Bana yabancı bir kültürün halkı ile karşılaştığımda onlarla kaynaşabilme konusunda kendime güvenirim.
M3. Yeni bir kültüre uyum sağlama sürecinde yaşayacağım stres ile başa çıkabilme konusunda kendime güvenirim.
M4. Yabancısı olduğum bir kültürde yaşamaktan hoşlanırım.
M5. Farklı bir kültürdeki alışveriş koşullarına alışabilme konusunda kendime güvenirim.
B1. Konuşma davranışlarımı (örneğin; ses tonu, aksan vb.) kültürlerarası iletişimin gereklerine göre ayarlarım.
B2. (deleted item) Farklı kültürlerarası durumlara uyum sağlamak için duruma göre duraksar ya da sessiz kalırım.
B3. Konuşma hızımı kültürlerarası etkileşimin gereklerine göre değiştirebilirim.
B4. Sözel olmayan davranışlarımı kültürlerarası etkileşimin gereklerine göre değiştirebilirim.
B5. Yüz ifadelerimi kültürlerarası etkileşimin gereklerine göre değiştirebilirim.

B. OPENNESS TO EXPERIENCE SUBSCALE

The items of the openness to experience subscale that were adapted to Turkish by the researchers are provided below.

O1. Orijinal biriyim, yeni fikirler üretirim.
O2. (deleted item) Pek çok şeyi merak ederim.
03. Zeki ve derin düşünebilen biriyim.
O4. Hayal gücü kuvvetli biriyim.
O5. Yaratıcıyım.
O6. Sanatsal ve estetik şeylere önem veririm.
O7. (deleted item) Rutin, tekdüze şeyler yapmayı tercih eden biriyim.
O8. Fikirlerle oynamayı ve fikirlerimi yansıtmayı severim.
09. Sanatla ilgilenen biri değilim.
O10. Sanat, müzik ve edebiyatla ilgiliyim.

GENİŞ ÖZET

Globalleşmenin ve teknolojik gelişmelerin de etkisiyle, son yıllarda, çok daha fazla insan kültürlerarası etkileşime maruz kalmaktadır. Aynı zamanda, kültürü geniş anlamıyla ele aldığımızda, sadece yurt dışına seyahat edenlerin ya da çok uluslu şirketlerde çalışan kişilerin değil, aynı zamanda toplumdaki her bir etkileşimin aslında potansiyel bir kültürlerarası etkileşim olduğu görülmektedir. Bireyler arasındaki bu farklılıklar gözetildiğinde, etkileşimler sırasında anlaşmazlıklar yaşamak kaçınılmazdır; ancak bu anlaşmazlıkların üstesinden gelmeye çalışmak da bir o kadar önemlidir. Bu bağlamda, "kültürel zekâ" oldukça önemli bir kavram olarak karşımıza çıkmaktadır.

Kültürel zekâ, kültürel farklılıkların rol oynadığı durumlarda bireyler arasındaki etkileşimi verimli bir şekilde sürdürme yetisidir (Earley & Ang, 2008). Bir diğer deyişle, farklı kültürlerden bireylerin bulunduğu ortamlarda, bireylerin karşılarındaki kişileri doğru bir biçimde anlama, kendini anlatma ve etkili bir şekilde iletişimi sürdürebilme kapasitesidir (Plum, 2007). Kültürel zekânın dört alt-boyutu bulunmaktadır. Bunlardan "üst-biliş", kültürel farklılıklar ve benzerlikler hakkında düşünme, davranışlarını planlama ve denetleyebilme yetisidir. "Biliş" alt boyutu, genel olarak kültürler hakkındaki bilgileri temsil etmektedir; normlar, değerler, inanışlar, diller, vb. "Motivasyon" alt boyutu, farklı kültürlerden bireylerle etkileşime girme isteği olarak tanımlanabilir. Son olarak da "davranış" alt boyutu, bireylerin sözlü ve sözlü olmayan davranışlarını kültürlerarası iletişimin gerekliliklerine göre adapte edebilmesini açıklamaktadır.

Globalleşme, 21. yüzyılda, günlük hayatın her alanında olduğu gibi, yükseköğrenimde de etkisini göstermeye başlamıştır. Ayrıca, "uluslararasılaşma" anlayışı dâhilinde de yükseköğrenim kurumları tarafından geliştirilen uygulamalar ve çıkarılan kanunlarla kurumlar global akademik çevrede de rekabet haline girmişlerdir. Yükseköğrenim kurumlarının uluslararasılaşması çok yönlü olup, öğretim dilinin İngilizce olarak belirlenmesi, yurt dışı kampüslerinin kurulması, öğretim görevlisi değişim anlaşmaları ve

öğrenci değişim programları bunlardan birkaçıdır. Bu girişimlerden, özellikle Avrupa ülkeleri arasında oldukça etkili olan biri de 1987 yılında başlatılan Erasmus Öğrenim Hareketliliği Programıdır. Bu bağlamda yükseköğrenimde oldukça yoğun bir öğrenci sirkülasyonu olmakta ve bu hareketlilik, üniversite öğrencilerinin, kültürel zekâlarının artırılmasını önemli ve gerekli kılmaktadır.

Erasmus Öğrenim Hareketliliği Programı ile yurt dışında öğrenim gören öğrencilerin deneyimlerini etkileyecek bir husus da öğrencilerin kişilik özellikleridir. Kişilik özellikleri her bir bireye özgüdür ve genlerden, yetiştirilme tarzından, insan ilişkilerinden ve kişisel deneyimlerden etkilenmektedir. Bu sebeple üniversite öğrencilerinin kültürel zekâları ve yurt dışı eğitim deneyimleri incelenirken, kişilik özellikleri de dikkate alınmalıdır. Kişilik özelliklerini ölçerken, bu çalışmada, Beş Faktör Kişilik Ölçeği kullanılmıştır. Bu beş alt boyut: deneyime açıklık, dışa dönüklük, uyumluluk, sorumluluk ve duygusal denge olarak belirlenmiştir. Yapılan araştırmalar, beş kişilik boyutundan sadece "deneyime açıklık" kişilik özelliğinin kültürel zekânın tüm alt boyutlarıyla ilişkili olduğunu gösterdiğinden, bu çalışmada, Erasmus Öğrenim Hareketliliği Programına katılan ve katılmayan üniversite öğrencilerinin kültürel zekâları, deneyime açıklık kişilik özelliği kontrol edilerek incelenmiştir.

Bu bilgilerin ışığında, bu çalışmanın araştırma sorusu: "Erasmus Öğrenim Hareketliliği Programına katılan ve katılmayan üniversite öğrencilerinin, "deneyime açıklık" kişilik özelliği kontrol altında tutulduğunda, kültürel zekâları farklılık göstermekte midir?" olmuştur. Çalışmada, nedensel karşılaştırma araştırması uygulanmıştır. Çalışmanın verileri, Ankara'da bir üniversitede öğrenim görmekte olan öğrencilerden toplanmıştır. Erasmus Öğrenim Hareketliliği Programı kapsamında ilk olarak son üç yıl içinde bir ya da iki dönem boyunca bir Avrupa ülkesinde öğrenim gören ve ikinci olarak da öğrenim amaçlı hiç yurt dışında bulunmamış öğrenciler çalışmaya dâhil edilmiştir. Bu kapsamda, toplam 297 öğrenci pilot çalışmaya, pilot çalışmaya katılmamış 450 öğrenci ise asıl çalışmaya katılımcı olarak dâhil edilmiştir.

Pilot çalışmada, veri toplama amacıyla, öğrencilere üç bölümden oluşan bir ölçek uygulanmıştır. İlk bölümde öğrencilere demografik bilgiler (yaş, cinsiyet, sınıf, not ortalaması, bölüm ve Erasmus'a katılıp katılmadıkları) sorulmuştur. İkinci ve üçüncü bölümlerde ise, sırasıyla, dört alt boyutlu 20 soruluk Kültürel Zekâ Ölçeği ve Beş Faktör Kişilik Ölçeği'nin 10 soruluk "deneyime açıklık" alt boyutu uygulanmıştır. Bu ölçeklerin Türkçeye uyarlanmasında çeşitli yöntemler izlenmiştir. İlk olarak ölçekler araştırmacı tarafından Türkçeye daha sonra tekrar İngilizceye çevrilmiş ve uzman görüşleri alınmıştır. Daha sonra 297 öğrencinin katılımıyla SPSS 23 kullanılarak Açımlayıcı Faktör Analizi (AFA) gerçekleştirilmiştir. AFA sonucunda, Kültürel Zekâ ölçeğindeki iki maddenin (Biliş 2. Madde ve Davranış 2. Madde) ve Beş Faktör Kişilik Ölçeği, deneyime açıklık alt-boyutundaki iki maddenin (2. ve 7. maddeler) faktör yüklerinin çok düşük olduğu görülmüş ve ölçeklerden çıkarılmalarına karar verilmiştir. Daha sonra her bir alt boyut için güvenirlik katsayıları hesaplanmış ve sırasıyla Kültürel Zeka Ölçeği: Üst-biliş, Biliş, Motivasyon ve Davranış için .77, .83, .84 ve .79 olarak; Beş Faktör Kişilik Ölçeği, deneyime açıklık alt-boyutu için .78 olarak bulunmuştur. AFA ardından ASOS programı kullanılarak Doğrulayıcı Faktör Analizi (DFA) gerçekleştirilmiştir. Kültürel Zeka Ölçeği için en büyük olabilirlik kestirimi ile DFA gerçekleştirilmiş (CFI = .95, NFI = .89, CMIN/DF = 2.27, RMSEA = .07) ve güvenirlik katsayıları üst-biliş, biliş, motivasyon ve davranış faktörleri için sırasıyla .79, .82, .84 ve .80 olarak hesaplanmıştır. Deneyime açıklık alt-boyutu için de bir DFA gerçekleştirilmiş olup (CFI = .89, NFI = .81, CMIN/DF = 2.71, RMSEA = .08) güvenlik katsayısı .76 olarak hesaplanmıştır.

Asıl veri analizi için SPSS 23 programı kullanılarak Çok Değişkenli Kovaryans Analizi (MANCOVA), varsayımlar kontrol edildikten sonra gerçekleştirilmiştir. Analizin sonuçları, deneyime açıklık kişilik özelliğinin, bu çalışmada önemli bir eşdeğişken faktör olduğunu göstermiştir (üst-biliş için $p < .0125$; biliş için $p < .01$; motivasyon için $p < .01$; davranış için $p < .0125$). Buna ek olarak, analizin sonuçları Erasmus Öğrenim Hareketliliği Programı'na katılmanın kültürel zekânın tüm alt boyutları üzerinde etkili olduğunu göstermiştir (üst-biliş için: $F(1,449) = 24.37$, $p < .0125$, $\eta^2 = .05$; biliş için: $F(1,449) = 33.34$, $p < .01$, $\eta^2 = .07$; motivasyon için: $F(1,449) = 42.22$, $p < .01$, $\eta^2 = .09$; davranış için: $F(1,449) = 35.57$, $p < .0125$, $\eta^2 = .07$).

Aynı zamanda sonuçlar, deneyime açıklık kişilik özelliği kontrol altında tutulduğunda, Erasmus'a katılmanın kültürel zekânın tüm alt boyutları üzerinde istatistiksel olarak önemli bir fark yarattığını göstermiştir. Erasmus Programı'na katılan öğrencilerin üst-biliş kültürel zekaları ($M = 5.90$, $SE = .08$) katılmayanlara göre ($M = 5.40$, $SE = .05$); katılan öğrencilerin biliş kültürel zekaları ($M = 4.81$, $SE = .09$) katılmayanara göre ($M = 4.22$, $SE = .06$); motivasyon kültürel zekaları ($M = 6.15$, $SE = .06$) katılmayanlara

göre (*M* = 5.46, *SE* = .06); ve davranış kültürel zekaları (*M* = 5.56, *SE* = .10) katılmayanlara göre (*M* = 4.84, *SE* = .06) istatistiksel olarak önemli bir düzeyde daha yüksek olarak gözlemlenmiştir.

Çalışmanın sonuçları ışığında, Erasmus Öğrenim Hareketliliği gibi programların öğrencilerin kültürel zekâlarını artırdığından dolayı üniversitelerin benzer programlara ağırlık vererek öğrencileri desteklemesi önerilmiştir. Bu kapsamda üniversitelerde Uluslararası İşbirliği Ofislerinin açılması ve üniversitelerin Erasmus Programı dâhilindeki bütçelerinin artırılması, aynı zamanda kişilik özellikleri yurt dışı deneyimini etkileyeceğinden, yurt dışı programlarına katılan öğrencilere gereken desteğin sağlanması önerilmiştir.