PARTICIPATING IN ERASMUS STUDENT MOBILITY PROGRAM AND CULTURAL INTELLIGENCE

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Approval of the Graduate School of Social Sciences

_____

Prof. Dr. Tülin Gençöz
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

_____

Prof. Dr. Cennet Engin Demir
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

_____

Assist. Prof. Dr. Serap Emil
Supervisor

Examining Committee Members

Assoc. Prof. Dr. Yaşar Kondakçı	(METU, EDS)	_____
Assist. Prof. Dr. Serap Emil	(METU, EDS)	_____
Assist. Prof. Dr. Burcu Arığ Tibet	(Ufuk Uni., EDS)	_____

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Name, Last Name: Özge Gökten

Signature :

ABSTRACT

PARTICIPATING IN ERASMUS STUDENT MOBILITY PROGRAM AND CULTURAL INTELLIGENCE

Gökten, Özge

M.S., Department of Educational Sciences

Supervisor: Assist. Prof. Dr. Serap Emil

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The purpose of this study was to investigate the difference between college students' cultural intelligence who have participated in Erasmus Student Mobility program and students' who have not participated in the program, when their personality trait "openness to experience" is controlled. Data were collected from 450 students who are studying in different departments in Middle East Technical University, Ankara. Data collection instruments were demographic information survey, Cultural Intelligence Scale, and Openness to Experience subscale of Big Five Inventory Scale. Cultural Intelligence Scale and Openness to Experience subscale were adapted by the researcher.

Exploratory Factor Analysis for Turkish version of Cultural Intelligence Scale yielded four-factor model with reliability coefficients ranging from .77 to .84. Exploratory Factor Analysis for Turkish version of Openness to Experience subscale confirmed the appropriateness of the subscale with reliability coefficient .78 indicating good reliabilities for both scales.

Multivariate Analysis of Covariance results indicated that participating in Erasmus Student Mobility 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 has a statistically significant mediating effect on metacognitive, cognitive, motivational, and behavioral cultural intelligence.

Keywords: cultural intelligence, Erasmus Student Mobility Program, openness to experience, college students, internationalization

ÖZ

ERASMUS ÖĞRENİM HAREKETLİLİĞİ PROGRAMINA KATILIM VE KÜLTÜREL ZEKÂ

Gökten, Özge
Yüksek Lisans, Eğitim Bilimleri Bölümü
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Bu çalışmanın amacı, kültürel zekânın 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 Orta Doğu Teknik Üniversitesi'nde farklı bölümlerde öğrenim gören 450 öğrencinin katılımıyla toplanmıştır. Çalışmada veri toplama araçları olarak, demografik bilgiler anketi, araştırmacı tarafından Türkçeye uyarlanan Kültürel Zekâ Ölçeği ve Beş Faktör Kişilik Ölçeği – Deneyime Açıklık alt boyutu kullanılmıştır.

Kültürel Zeka Ölçeği'nin Türkçe uyarlaması için yapılan Açımlayıcı Faktör Analizi, ölçeğin dört farklı alt boyutu ölçtüğünü, ve alt boyutların güvenirlik katsayılarının .77 ile .87 arasında değiştiğini göstermektedir. Beş Faktör Kişilik Ölçeği – Deneyime Açıklık alt boyutunun Türkçe uyarlaması için yapılan Açımlayıcı Faktör Analizi, ölçeğin kullanıma uygunluğunu doğrulamış ve güvenirlik katsayısının .78 olduğunu göstermiştir.

Çok Değişkenli Kovaryans Analizinin sonuçları, Erasmus Öğrenim Hareketliliği Programı'na katılmanın, deneyime açıklık kişilik özelliği kontrol altında tutulduğunda, kültürel zekanın tüm alt boyutları üzerinde (üst-biliş, biliş, motivasyon ve davranış) istatistiksel olarak anlamlı bir etkisi olduğunu göstermiştir. Ayrıca sonuçlar, deneyime açıklık kişilik özelliğinin, kültürel zekanın üst-biliş, biliş, motivasyon ve davranış alt boyutlarında istatistiksel olarak anlamlı bir aracılık etkisi olduğunu göstermiştir.

Anahtar Kelimeler: kültürel zeka, Erasmus Öğrenim Hareketliliği Programı, deneyime açıklık, üniversite öğrencileri, uluslararasılaşma

To my mother Müzeyyen Gökten and

my father Mustafa Ali Gökten,

you are the best family anyone can imagine.

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CHAPTER 1

INTRODUCTION

This chapter is comprised of four parts: The first part, background to the study, provides a theoretical frame for the study. In part two, purpose of the study is provided to help the readers familiarize themselves with the context since it has a major role in gaining an in-depth understanding of what this study aims to reveal. In part three, the research question of the study, which shapes the research is given. Hypothesis is presented in part four. In part five, the significance of the study is explained in order to justify the need for the study. Finally, in part six, operational definitions are presented.

1.1. Background to the Study

Every person holds different motives of behavior, feelings, beliefs, and ideas. These motives are learned through a lifetime; from childhood to adulthood via family relations, school, friends, workplace, social life, personal experiences, etc. This unconscious learning happens throughout person's life, and it is a "mental programming" of the mind. As a child grows up, s/he eventually becomes an adult who contains different patterns of beliefs and behaviors in his/herself. While growing up, as a person experiences new things, s/he must unlearn what and how s/he used to believe, feel, or act, which is more difficult than learning them in the first place. That is why conflicts between different people, groups, and nations are difficult to resolve when they occur. However, overcoming these conflicts in cooperation with other people, groups, and nations is critical to be more effective and permanent (Hofstede & Hofstede, 2005, pp. 1-3).

As people acquire different "mental programs", "intercultural communication" cannot be narrowed down just to various countries, religions, or races. The grounds of "mental

programming" lie, first, within the family context and personal experiences where a person grows up, and then it expands to social and work life. As the analogy "mental programming" refers to various patterns of believing, feeling, and behaving; differences between generations, races, religions, regions, sexual orientations, and disabilities should be taken into consideration while defining intercultural communication.

The term "culture" has lots of variant definitions that come from the word's Latin source, which refers to "the tilling of the soil". In a narrow sense, culture means "civilization" which is the result of education, art, and literature. However, throughout this study, it was referred in its broader sense, which is not only the result of civilization coming from art and literature, but it is everything that at least partly shared by some group of people. As Hofstede and Hofstede (2005, pp. 3-4) state "the collective programming of the mind that distinguishes the members of one group or category of people from others". By adopting this definition, culture, for us, becomes both the activities that civilize the mind, and every ordinary thing that is shared by a group of people, such as ways of speaking, eating, problem solving, communicating, expressing feelings, etc.

In the past, the only people having intercultural interactions were those who travel abroad or live in metropolitans; however, as the world becomes more globalized due to technological developments in the 21st century, more people than ever are having cross-cultural experiences in their social and professional lives. This situation makes it more important for people to be capable of carrying out those intercultural interactions (Lopes-Murphy, 2014). As a reflection of the globalized world, business organizations are also becoming more diverse, and employers look for employee candidates who are more competent and effective in intercultural contexts (Kennedy, 2012). Going global also mean that distance between countries, regions, and people are becoming smaller, interaction between different people from various cultures and countries are becoming more possible than ever (Raikhan, Moldakhmet, Ryskeldy, & Alua, 2014). Those people who interact may even live in the same neighborhood, and speak the same language; however, it does not necessarily mean that they really

“understand” each other. 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 that is mentioned. 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 function effectively in situations characterized by cultural diversity” (Earley & Ang, 2008).

Moreover, in order to experience cultural diversity, living in another country or working in an international business organization is not mandatory. People are exposed to cultural diversity in their own countries, and even in their neighborhoods, which they spend their whole lives. 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, and social and economic status. 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.

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). In light of these, each relationship even in a single society can be considered as a multicultural organization. Disputes in such a diverse world is 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).

One of the reasons that this study adopted the broad definition of culture by Hofstede (2005) is that, cultural intelligence is not accepted as it only exists in multicultural

workplaces due to globalization, but it was taken as a set of skills to effectively "understand" a diverse group of people with various patterns of beliefs, ideas, or people with disabilities, different sexual orientations, political views, and ethnicities. Using culture in its broad sense is also important because it is "a system of relations between (visible) thing in the environment of people and their (invisible) significances, shared by a social group" (Matsumoto, 2010, p. 4).

Culture, since it is shaped by social environment, is hard to realize when individuals stay in their own environment through childhood to adulthood. When a person grows up in a neighborhood, interacts with same family members and friends, goes to school and then starts to work in that neighborhood, probably s/he cannot see how other people value differences or how they react in a unique way in similar situations. When we are away from our cultural settings, we start to see other people's views, values, and beliefs.

During 21st century, *globalization* has started to show its impact on higher education institutes, as well as on other aspects of everyday 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 global 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 higher education institutes 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 college students in Turkey have studied abroad, and 13.649 international students have come to Turkey to study within the scope of Erasmus Program (YÖK, n.d.).

While defining cultural intelligence, it was mentioned that it contains some skills and knowledge in order to maintain effective communication in different cultural settings. As it will be questioned in detail later, it is a fact that living in different places where people are from unfamiliar cultural backgrounds enhance one's cultural intelligence. Because living abroad presents some challenges to college students, they start to question their own beliefs, values, and behaviors, and they try to understand others', as well.

Another factor affecting living abroad experiences is the individuals' personality. Personality is unique to every individual; whether people are from the same country or same family, personality traits can be different. 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. Power distance, individualism vs. collectivism, masculinity vs. femininity, and uncertainty avoidance differ from culture to culture. Those factors also affect individuals' personality; and 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. Evaluating personality can be tricky since there are lots of tests that measure personality traits, listing hundreds of traits (Hofstede & Hosftede, 2005). However, since 1990s, it has been widely accepted that there are five major personality dimensions that are listed as "Big Five Personality Traits", and this study benefited from those (Hofstede & Hosftede, 2005, pp. 93-94). These dimensions are openness to experience,

conscientiousness, extraversion, agreeableness, and neuroticism, and they will be discussed in detail in Chapter 2.

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). In the light of this, "openness to experience" are considered in this study. Therefore, the purpose of this study is to investigate the effect of participating in Erasmus Student Mobility Program on cultural intelligence by controlling the mediating effect of personality trait openness to experience.

1.2. Purpose of the Study

As indicated above, engaging in intercultural interactions is inevitable. Individuals' cultural intelligence and personality traits play a big role in determining the effectiveness of those interactions. Although cultural intelligence attracts significant attention, there are limited research studies investigating its relationship to personality traits and intercultural immersion experience. However, intercultural immersion experience is found to be one of the most effective ways to enhance one's global mindfulness, cultural awareness, and personal development (Black & Duhon, 2006; Tuleja, 2014).

Cultural intelligence (CQ) contains the abilities that college graduates must have to be socially and academically efficient throughout their lives. Because, according to research, cultural intelligence is highly positively related to enhancement in task performance, effective decision-making, interpersonal trust in multicultural teams, and effective social interactions (Keung, 2011). Moreover, as mentioned before, each relationship in society is a potential for multicultural interaction; differences in race, ethnicity, age, gender, sexual orientation, political view, social status, disabilities, religion, and more, makes CQ crucial for maintaining peace and mutual tolerance in societies.

CQ consists of some knowledge, skills, and qualities that individuals can develop in time. Also, in order to examine college students' cultural intelligence, there is an aspect that should be taken into consideration, which is personality. As previous research indicated, individual differences and personality traits play a significant role in predicting various behavior (Keung, 2011). So, we cannot separate students' subjective studying abroad experiences from their personality.

In the light of these, the purpose of this study is to investigate the difference between students who have participated in Erasmus Student Mobility Program and students who have not participated in the program on cultural intelligence when their personality trait "openness to experience" is controlled.

Additionally, we know that students' personality will affect their living abroad experiences. That is why, making sure that students know that their experiences will be subjective, colleges can prepare students in terms of what to expect from the Erasmus experience. Possible setbacks can be identified in advance, and precautions can be taken for students who are at risk groups (less open to experience, more introvert, etc.).

Another aspect is that mobility programs are crucial in terms of enhancing communication among countries and creating a collective consciousness of being "global" or "European". In a document prepared by European Commission (2014), it is stated that Erasmus Program, indeed, aims to enhance college students' opportunities, targets to include young adults to European workforce and democratic life, and also aims to increase intercultural dialogue and unity. In spite of increasing political tension, contradictions, and imbalance, mobility programs such as Erasmus Program are becoming more important in order to create that feeling of solidarity and maintaining peace and tolerance among different cultures and countries. This study also aims to increase the importance given to study abroad programs such as Erasmus program, since they significantly increase cultural awareness, and decrease ethnocentrism among young adults.

1.3. Research Question

The research question of this study is:

1. What is the difference between college 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?

1.4. Hypothesis

The null hypothesis of this study is:

H_0: There is no statistically significant difference between college students who have participated in Erasmus Student Mobility Program and students who have never studied abroad in terms of cultural intelligence when personality trait "openness to experience" is controlled.
H_1: There is statistically significant difference between 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.

1.5. Significance of the Study

With globalization, as the borders to business, travel, and immigration are eliminated, sharing information and other interactions are becoming easier; however, cultural borders are not that easy to eliminate. According to Huntington (1993) there are eight cultural domains in the world now, which are Western, Confucian, Japanese, Islamic, Hindu, Slavic-Orthodox, Latin American, and African, and these cultural domains are now the reasons of conflicts. According to Huntington (1993), global conflicts will no longer be related to political or economic reasons, but the cultural. These cultural conflicts, he states, may be caused by the language differences (linguistic), by

increasing interactions between people who are from different cultures (less tolerance for differences), by extremist people such as terrorist whose local cultures and traditions were destroyed by modernization and social changes, and by differences in values of these domains. Another thing that causes culture clash is ethnocentrism. Ethnocentrism is the belief that one's own culture is better than or superior to other cultures (Machida, 2012). Ethnocentrism provides people a feeling of belonging or identity; however, when it becomes excessive, it can even cause violence (Hamburg, 1986).

Failures in graduating competent college students will cause ineffectiveness in lots of areas; college graduates who are not effective in intercultural contexts will be incompetent in academic arenas, in governmental and nongovernmental organizations, in their professional lives, and more importantly in their social lives. Bringing up college graduates whose cultural intelligence level is high is very important due to globalization and increasing diversity, as well as to the complex structure of society that includes a wide range of diversity.

Building cultural intelligence in college students is crucial in order to enhance their interpersonal skills and personal development. Guiding and helping students for their personal development in college years is very important, because research shows that individuals' personality is dependent on genes during childhood years; however, as the individuals experience things in the environment, and come in contact with other individuals, the significant changes in personality occur during early adulthood years. In those years, environmental factors play a much bigger role on personality formation, rather than genes (Plomin & Nesselroade, 1990). Moreover, the genes that individuals possess, which were hidden before, may become apparent, after individuals experience certain events (Gottlieb, 2003). As personality traits tend to take their final form in those ages; starting from 18 years of age (Feist & Feist, 2006), enhancing college students' CQ is very critical.

As college graduates become more culturally intelligent, they also become more tolerant to differences in society, and they become more culturally empathetic.

Cultural empathy, as defined by Ruben (1976), is “the capacity to clearly project an interest in others, as well as to obtain and to reflect a reasonably complete and accurate sense of another’s thought, feelings, and/or experiences”. This ability, as research suggests, is strongly related to individuals’ personality traits (Van der Zee & Van Oudenhoven, 2000). The more college students’ CQ level is increased, the more they become empathetic and tolerant toward differences in behaviors, feelings, and attitudes of members of other cultural groups in their own society, or in other parts of the world.

The lack of research on cultural intelligence of college students, concentrating on their studying abroad experiences makes this study significant, because it fills the literature gap in terms of whether young adults’ cultural intelligence may or may not be affected by international immersion experiences. In addition, taking participants’ personality into consideration increases this study’s reliability, since literature claim that cultural intelligence is significantly related to personality of people (Ang, Dyne, & Koh, 2006). The results demonstrate how young adults enhance their abilities of CQ, when exposed to a different culture, and how their personality subjectifies this experience.

Moreover, the outcomes of this study are for the benefit for college students who seek to enhance their CQ, and wants to participate in Erasmus Student Mobility program. With the help of this study’s and other related studies’ results, the universities can conduct orientation programs for outgoing and incoming students, and orientation programs that already exist can be further developed. The concepts such as cultural intelligence, cultural tolerance, and culture shock can be presented to students; and the cultures that they will live in for a certain time can be introduced to these students. The legal systems, social relationships, individualism vs. collectivism, power distance, familial relationships, verbal and nonverbal codes can be introduced to students at these orientations. Students can be warned on how to become more tolerant to differences regarding religion, historical background, sexual orientation, disabilities, ethnicities, political views, etc.

This study is also for the benefit of whole society, not only for college students; because increasing the cultural intelligence leads to easier conflict resolution, problem

solving, and tolerance between different groups in society. By understanding the importance of cultural intelligence, further studies can be developed to investigate the ways of increasing CQ level of individuals to prevent disputes between people from different ethnicities, genders, sexual orientations, religions, and languages, as well as between different countries. Moreover, increasing awareness towards the importance of cultural intelligence, student mobility programs, notably Erasmus Student Mobility Program, may be further developed in terms of its grants, intended populations, and institutions.

1.6. Operational Definitions

Throughout this study, several basic concepts are discussed; culture, cultural intelligence, personality, and Erasmus Student Mobility Program. The definitions of these terms are presented below.

Culture: "… complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society." (Tylor, 1974)

Cultural Intelligence (CQ): "A person's capability to function effectively in situations characterized by cultural diversity" (Earley & Ang, 2008).

Erasmus Student Mobility Program: "is the EU's program for boosting skills and employability through education, training, youth, and sport." (European Commission, n.d.).

Personality: "is a pattern of relatively permanent traits and unique characteristics that give both consistency and individuality to a person's behavior." (Feist & Feist, 2006, p. 4).

CHAPTER 2

REVIEW OF THE LITERATURE

The review of the literature part for this study is divided into five main sections. In the first section, the definition of culture and its elements are discussed. The second section is based upon cultural intelligence, its emergence and related factors (metacognitive, cognitive, motivational, and behavioral). Moreover, related pervious research are mentioned in this section. The third section presents a general framework for Erasmus Student Mobility Program. The fourth section briefly discusses the definition of personality, and focuses on Big Five Personality theory, which provides a framework for this study. Personality development in college students is also presented in this section. Lastly, the fifth section presents some examples of previous literature related to cultural intelligence and personality.

2.1. Culture

In order to understand cultural intelligence, we first need to look at culture itself. Early definition of "culture" comes from the Latin word "cultura", meaning literally "agriculture, a cultivating", and figuratively "care, culture, an honoring". It literally means the "tilling of a land". During mid-15th century, the word had started to be associated with education, and during 1800s, it started to be used as the "intellectual side of civilization" (Online Etymology Dictionary, n.d.). Although some people associate culture with intellectuality, when we look from a broader perspective, we see that culture is not only a product of education and civilization in that sense. Culture is so encompassing that everyone; from the highly educated and sophisticated people, to most illiterate and ignorant, each member of a society is part of a culture (Thio, 2008).

By our definition, culture is something that is acquired throughout a person's life; from childhood to adulthood by the social environment. Therefore, it is learned, not innate. Hofstede and Hofstede (2005, pp. 4-5) argued that culture is not engraved in a child's

genes; thus, it should be differentiated from "human nature", which is innate and universal to all humankind. Human nature includes biological reactions like sleeping, hunger, etc. Another thing that should not be mixed with culture is "personality". The personality of people who belong in the same social environment can be different. It consists of an individual's genetic make-up and personal experiences, and it makes every individual unique. The culture has an effect on personality in a way that it modifies personal experiences' outcomes and its effect on the person. Figure 1.1 below demonstrates these three levels.

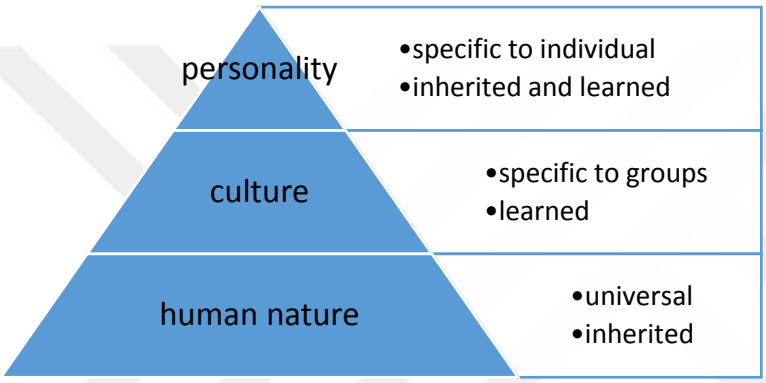


Figure 2.1 Three level of uniqueness in mental programming, Hofstede & Hofstede. (2005), p.4

It is not easy to define culture; however, we certainly can understand it, when we are away from our own culture. Culture consists of "beliefs and values that people can use to interpret their experiences and behaviors individually or in groups". Behaviors and values that are significant to a culture may not be to another. When an individual is away from his/her own culture, and exposed to another one, the cultural differences and similarities become more observable (Isfahani, Jooneghani, & Azar, 2013). Another definition of culture is that it is a "collection of ideas, values, practices, and material objects that mean a great deal to a group of people, even an entire society, and that allow them to carry out their collective lives in relative order and harmony" (Ritzer, 2015). If we look at culture in a broad sense, most of other definitions of culture are similar, as well. Thio (2008) defines it as "a design for living, or, more precisely, a complex whole consisting of objects, values, and other characteristics that

people acquire as members of a society." Another definition includes "social norms, beliefs, and values that are learned overtime, and that provide both a worldview and a way of living" (Guerra & Knox, 2008). Moreover, Zhou and Griffiths (2011) define culture as "any of the practices which distinguishes one group of people from others". According to Byram (1989), on one hand, an individual's way of living; including food choices and clothing, composes the culture's surface level; on the other hand, traditions, customs, values, and beliefs compose the culture at a deeper level.

As these definitions remark, culture has some core components, which are universal. People can be from various countries, race, ethnicities, generations, religions, sexual orientations, social and educational backgrounds, and they may be a part of a different culture; however, all these diverse backgrounds have some components in common. Some of these components are material such as physical objects produced by the members of the culture, and some of them are nonmaterial such as values, beliefs, norms, symbols, and language. Material culture includes all concrete objects; these can be clothes, plates, ceramics, houses, weapons, etc. On the other hand, nonmaterial culture is much broader. It conveys symbolic things like norms, rules, and language (Thio, 2008). In this study, we are more interested in nonmaterial culture, because it reflects how people interact and communicate, and also it represents the different relationships in various cultures.

One of these symbols is *beliefs*. Beliefs are highly subjective. Unlike a proven idea, beliefs are not demonstrable. To or not to believe in God is an example of a belief. Unlike a knowledge like "Earth is round", "There is a God" or "There is no God" is not something that can be proven. Another component of culture is *values*. Values describe what is desirable, what is good for a certain group of people. Although they determine what is good and important, one thing that matters to group may be totally wrong or unimportant for another one. *Values* are not directly observable; however, they can be inferred from the way people live and what care about. Values are also the basis of *norms*. Norms are the unwritten, social rules that specify what people should do in certain situations. Norms also differ from one culture to another. Although violating these informal rules are not like violating laws, it is still culturally not

appropriate. Neighbor relations, talking on the phone while travelling on a bus, what to do during religious holidays, etc. can be given as examples to norms. Other components of nonmaterial culture are *symbols and language*. Symbols can be considered as gestures, mimics, or anything that represent another thing. Language definitely represents, transfers, develops, and stores a culture. It makes communication possible. Some scientists even argue that language determines or at least influences how we think and how we see the world (Sapir-Whorf hypothesis) (Ritzer, 2015; Thio, 2008).

Cultural differences extend back a long time, and culture clashes are almost inevitable. However, in order to overcome conflicts sprouting from cultural differences, individuals need to understand cultures, develop a cultural relativism and cultural intelligence. In the following section, cultural intelligence, its components, and related studies are presented.

2.2. Cultural Intelligence

When explaining Multiple Intelligences theory, Gardner gives an example by asking "what constitutes intelligence?"; he wants his readers to think about which of the following is evaluated as "intelligent"; a brilliant chess player, the world-class violinist, and the champion athlete. He argues that all these people have different abilities and talents; however, standardized IQ tests done with paper and pencil are insufficient to identify those. He states that IQ tests maybe usually correct on predicting school achievement, but they lack "explaining large areas of human endeavor". According to Gardner, individuals' cognitive competence should be identified as a set of abilities, talents, or mental skills, which are called "intelligences". This Multiple Intelligences theory contradicts with the traditional view of intelligence, and identifies at least seven distinct intelligences; which are logical-mathematical, linguistic, spatial, bodily-kinesthetic, musical, interpersonal, and intrapersonal (Gardner, 2006, pp. 5-6).

As Multiple Intelligences theory argues, there cannot be a fixed intelligence; but there are lots of different ones as people have different abilities, talents, and skills. Another intelligence model "Emotional Intelligence" (EQ) had gained popularity by David Goleman's book Emotional Intelligence (1995). Mayer, Roberts, & Barsade (2008), identified EQ as "the ability to carry out accurate reasoning focused on emotions and the ability to use emotions and emotional knowledge to enhance thought." Moreover, Goleman (2008, p. 317) described EQ as "the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships." Goleman (2000) also stated that the "brain's decision-making center is directly connected to emotions, then to logic".

Cultural intelligence (CQ), is related to and further explains other intelligences; especially emotional intelligence. Cultural intelligence is defined as "a person's capability to function effectively in situations characterized by cultural diversity", and it "has relevance to groups, teams, organizations, and even nations" (Earley & Ang, 2008). Its main difference from EQ is that CQ emphasizes intercultural contexts, and how individuals handle these specific contexts differently (Schlagel & Sarstedt, 2016). Ang and Van Dyne (2008), clarified the concept of CQ by stating that:

> … just as EQ complements IQ, in that both are important for an individual to find success at work and in personal relationships in an increasingly interdependent world (Earley & Gibson, 2002), we suggest that CQ is another complementary form of intelligence that can explain variability in coping with diversity and functioning in new cultural settings.

Van Dyne & Ang (2008) proposed a nomological network to further explain CQ and its relevance to other factors. As shown in Figure 2.1, the nomological network first includes distal factors like individual differences (e.g. Big Five Personality, ethnocentrism, etc.). Second, the four factors of CQ find their place in the figure, which affect a host of intermediate or intervening variables. These variables include individuals' subjective perceptions of cross-cultural interactions, their perception of uncertainty, their anxiety, and their willingness to or not to participate in cross-cultural

activities. Moreover, the network also recognizes the possible effects of other correlates, which are individuals' cognitive (IQ), social, and emotional abilities (EQ) that may affect the individual outcomes in cross-cultural contexts. Finally, the network addresses the importance of situational factors or context that may affect the intermediate outcomes. For example, in a strong situation where the task is well structured, CQ may play a reduced role, because the difficulties caused by intercultural situations are minimized. On the other hand, in weak situations where the task is unclear and unstructured, abilities related to CQ play a more important role; creating situations where individuals need to rely on their intercultural abilities more. Another situational factor is distance, implying that if individuals share more common values and norms in terms of their culture, the perceived distance is low, and CQ plays a reduced importance in that context.

To summarize, distal factors (personality, demographics, ethnocentrism, etc.), four factors of CQ, other mental and social abilities, motivation, anxiety, and situational factors play a major role on individual and interpersonal outcomes, such as intercultural leadership, communication effectiveness, task performance, multicultural team functioning, cultural adaptation, work adjustment, etc. This network is beneficial for this study, because it shows the contribution of personality, situational factors (where Erasmus Student Mobility Program's effect can be recognized), and four factors of CQ, on task performance and effective communication.

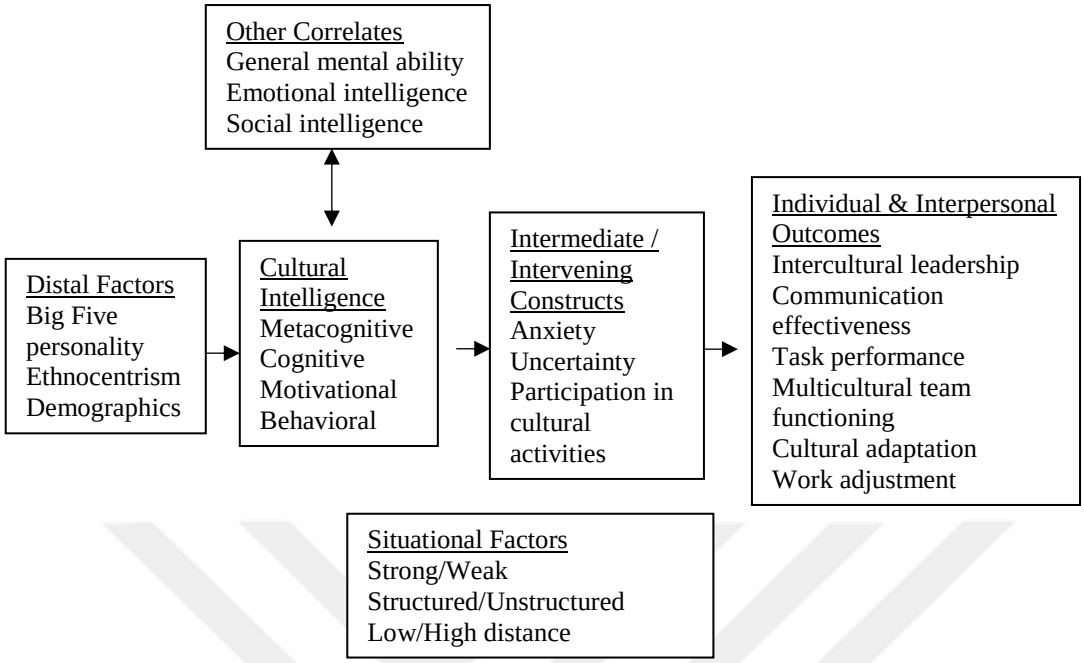


Figure 2.2. The nomological network of Cultural Intelligence. Van Dyne & Ang (2008).

As the world becomes more globalized, so do people: students, employees, customers, managers, and indeed everyone is somehow interacting with people from other cultures: as workers, tourists, and as members of social networks and communities. As Thomas and Inkson (2017) argues, "the globalization of culturally different people creates a major challenge" since cultural differences are invisible and difficult to detect, unlike laws or written rules. These multicultural encounters bring up possible misunderstandings and intolerances.

Thomas and Inkson (2017) suggest that few of intercultural failures are caused by being unaware of cultural biases (towards one's own culture by others, and towards other cultures by oneself), feeling threatened while interacting with people from other cultures (consciously or unconsciously), not being able to make sense of others' way of acting, not being able to realize one's culture's effect on one's behavior, and experiencing culture shock to a certain extent. To prevent these failures, they suggest that understanding cultural differences and developing cultural intelligence is a must. In order to develop cultural intelligence, one should first develop an understanding of

cultures: What is it?, How culture varies?, and How it affects behavior? Then, individuals need to pay attention to one's knowledge and emotions; and practice mindfulness. And finally, the skills needed to become competent in cross-cultural interactions should be developed.

Cultural intelligence has four main factors, which are 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. Individuals who have a high level of cognitive CQ possess a certain amount of knowledge of other cultures' political and economic systems, languages, values, religions, etc. They can evaluate the similarities and differences between cultures (Brislin, Worthley, & Macnab, 2006).

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. It is also defined as the "conscious cultural awareness of an individual's own culturally related assumptions and knowledge". High level of metacognitive CQ enables people "to develop more appropriate heuristics and rules for social interactions in new cultural situations." (Erez, Lisak, Harush, Glikson, Nouri, & Shokef, 2013).

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. Self-efficacy beliefs play an important role in motivational cultural intelligence. As people's self-efficacy beliefs increase, they become more open to new experiences in intercultural contexts. Individuals with high level of motivational CQ tend to be interested in adapting to cultural differences, and they are mostly willing to adapt their cultural knowledge and skills to 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. (Dyne, Ang, & Livermore, 2009; Keung, 2011). Individuals with high level of

behavioral CQ tend to demonstrate culturally appropriate gestures, facial expressions, and use appropriate verbal communication. Figure 2.2, below, demonstrates these four factors of cultural intelligence.

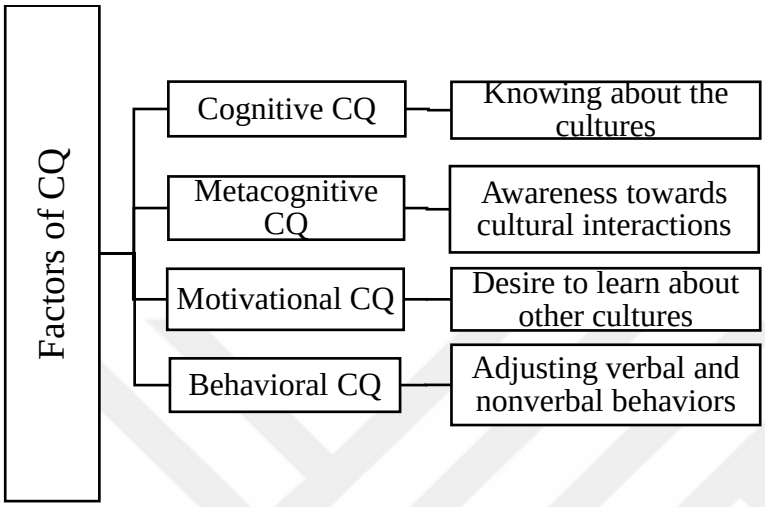


Figure 2.3. Figure showing the four factors of cultural intelligence

A study conducted with participation of migrant workers in Australia investigated the relationship between cognitive cultural intelligence level of migrant workers and their life satisfaction (Le, Jiang, & Nielsen, 2016). Researchers argued that life satisfaction is related to one's cognitive appraisal of one's overall quality of life, and it is affected by intrinsic and extrinsic factors such as health, longevity, psychological well-being, job satisfaction, and self-esteem. Moreover, they argued that cultural intelligence plays a role on determining life satisfaction, because it refers to migrant workers' ability to adapt to a new work place. The study focused on cognitive cultural intelligence of workers since the knowledge about a new culture is the first required competency in a new environment. The results showed that cognitive cultural intelligence is positively related to life satisfaction.

Another study investigated the effect of motivational cultural intelligence on cross-cultural adjustment (Templer, Tay, & Chandrasekar, 2006). The results indicated that motivational cultural intelligence is highly effective on cross-cultural adjustment:

especially in terms of adjusting to a new work place, adjusting to the new culture in general, and adjusting while intercultural interactions occur.

Another study conducted with participation of MBA students found that students who have higher levels of cultural intelligence are more likely to adapt their behavior according to the new culture's norms leading to more effective intercultural communication. Moreover, the researchers argued that cognitive and behavioral cultural intelligence are the two most important predictors of cross-cultural interaction effectiveness (Groves, Feyerherm, & Gu. 2015). On the other hand, as the study conducted by Racicot and Ferry (2016) indicated, motivational and metacognitive cultural intelligence levels of students who are going to study abroad are important predictors of experiential behavior of students while studying abroad, and their future interest in working and studying abroad.

A study conducted by Presbitero (2017), investigated the task performance of employees in call centers, where lots of cross-cultural communication occur. The researcher argued that increased motivational cultural intelligence may affect one's cultural knowledge and strategies in a way that leading to appropriate behavior in cross-cultural engagements. The results of the study indicated that language competency of employees is directly and highly related to task performance; however, when motivational cultural intelligence is included, the relationship between language competency and task performance becomes insignificant. Although the context of this mentioned study and the present study is different in terms of the participants (call center workers and college students), it is important to mention this study, as well, since it emphasizes the importance of cultural intelligence, specifically motivational cultural intelligence as a predictor of task performance and effective cross-cultural engagements.

A study conducted with 787 employees from Adriatic countries ("i.e. Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, Serbia, and Slovenia") found that metacognitive and motivational cultural intelligence is highly related to creativity in multicultural work places (Bogilovic & Skerlavaj, 2016). The researchers argued

that in order to increase task performance and creativity in diverse work environments, employers need to create opportunities for employees to develop their cultural intelligence.

The study conducted by Peng, Van Dyne, and Oh (2015), found that cultural effectiveness is highly affected by motivational cultural intelligence. They argued that when initial cross-cultural effectiveness is controlled, higher levels of initial motivational cultural intelligence led to substantial increases in cultural effectiveness based on cross-cultural study abroad programs.

As cultural intelligence becomes more important in various fields such as business and education, there are several research studies investigated the relationship between cultural intelligence and leadership. These studies suggested 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 young adults' cultural intelligence level in preparation for life after college.

To graduate more competent, effective, and culturally intelligent individuals, colleges 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. As mentioned before, learning about cultures develop 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, colleges and educators must provide opportunities for students to gain personal experiences. A study done in Colombia with undergraduate students demonstrated that among students, second language proficiency and extracurricular activities caused a significant difference in cultural intelligence. According to the study, knowing a foreign language and participating in extracurricular activities significantly enhanced CQ (Robledo-Ardila, Aguilar-Barrientos, & Roman-Calderon, 2016).

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 in order to be "culturally intelligent" and competent, people need to develop some behaviors, skills, and qualities that can be enhanced. And one of the most effective ways to do it is to engage in face-to-face interactions with people who represent different cultures, beliefs, and values (Zapata, 2011). 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 that help 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.

2.3. Erasmus Student Mobility Program

Enders (2004) argues that most higher education policies are affected by domestic – national level – policies, since there always been some core purposes of higher education institutions such as transmitting cultural identity and ideologies. Nevertheless, he also states that internationalization was present to some extent even during Renaissance; arguing that the university "always has been, and always will be, an international institution". Moreover, although there always been

internationalization and cooperation between higher education institutions, today it is much more effective than before. Internationalization "have begun to challenge the predominance of the nation state as the main determinant of the character of universities and colleges, and of the experiences of their students, their graduates, and those who work in them". As stated in Enders (2004), today there are lots of international cooperation between institutions, cooperative research activities, foreign language teaching, and student and staff mobility.

Since 1980s, higher education institutes in Turkey and all over the world are focusing on international student mobility, and they are continuously developing policies related to it. In fact, student mobility is one of the important topics of internationalization in higher education (Arkalı Olcay & Nasır, 2016). Statistics and ratings have begun to be used as criterions for measuring the universities' performance in international arenas. Universities are trying to attract international students, and trying to conduct double degree or dual diploma programs for achieving internationalization (Teichler, 2007, as cited in Tekin & Hiç Gencer, 2013).

One of the biggest opportunities for college students to encounter in face-to-face interaction with people represent other cultures is to participate in student exchange programs. In Turkish context, Erasmus Program is one of the most extensive and effective student exchange programs. This program enables higher education institutions, especially the ones in Europe, to exchange students for a certain period of time. Erasmus Programs are basically life-long learning programs among the higher education institutions within European Union member or prospective member countries. 33 countries are included in the programs that involves short-term student mobility, personnel mobility, and internship opportunities (Ulusal Ajans, 2012). The programs started in Europe in 1988, and in Turkey in 2003. By the end of 2013, more than 90,000 people have participated in Erasmus programs (Örer, 2014).

As stated by the Turkish National Agency (n.d.), the missions of the program are to be more active in international arena, becoming familiar with different cultures while promoting ours, improving personal, educational, and social skills, and having

intercultural experiences. Various research indicate that participants of Erasmus program benefit from the experience in several aspects; such as personal, social, and academic (Kasapoğlu, Önder, & Balcı, 2010; Tekin & Gencer, 2013). Students who participate in the program have a chance to live abroad for a certain period of time, and experience another culture in its authentic environment.

This study concentrated on the Erasmus Student Mobility Program, which creates short-term studying abroad opportunity for college students; in undergraduate and graduate level. The mobility duration changes between 3 to 12 months, and students who are qualified receives a certain amount of grant depending on the country that will be visited. In Turkey, by the end of 2012, 83% of the higher education institutions meet the requirement for participating in Erasmus programs. Moreover, 226,973,968.30 Euros have been assigned in total for Erasmus programs' grants (Ulusal Ajans, 2012).

According to the last activity report published by Turkish National Agency (Ulusal Ajans, 2012), by the year 2012, approximately 53,960 students have visited a European country within the scope of Erasmus Program. Table 2.2, below, demonstrates the number of students who benefitted from the program according to years. Among other European countries, by 2012, Turkey is listed as the 5th country that sends most student abroad. According to data provided by the Turkish National Agency (2012), of all outgoing students from Turkey; 20% of the students have visited Germany, 12% of the students Poland, 9% Italy, 7% Spain, 7% Holland, 6% France, and the rest have visited other European countries such as Belgium, Hungary, or Denmark.

Table 2.1.
Student and Personnel Mobility for Erasmus Program

Year	Outgoing student number	Incoming student number	Outgoing personnel number	Incoming personnel number
2003-2004	128	17	-	-
2004-2005	1,142	299	339	218
2005-2006	2,852	828	581	440
2006-2007	4,438	1,321	1,378	666
2007-2008	7,119	1,982	1,905	932
2008-2009	7,794	2,658	1,595	1,184
2009-2010	8,758	3,336	1,740	1,321
2010-2011	10,065	4,320	2,166	1,645
2011-2012*	11,664	4,700	2,204	1,900
Total	53,960	19,461	11,908	8,306

* Estimated numbers.

Ulusal Ajans 2012 yılı faaliyet raporu. (2012). Erasmus Programı Öğrenci ve Personel Hareketliliği, p. 43.

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, the desire 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).

Another study conducted with 360 Erasmus students from 26 different European countries stated that the key motivators for students to participate in the program include learning a new language, to experience different cultures, to gain self-confidence, to travel, to meet new people, to get to know different world views, and to grow as a person. According to this study, the students rank these motives as follows: “experiencing something new” as the most important motive, “to grow personally” as the second most important motive, “to learn about different cultures” as the third one, and “to meet new people” as the fourth most important motive (Lesjak, Juvan, Ineson, Yap, & Podovsovnik Axelsson, 2015).

Another qualitative study included interviews with the Erasmus Student Mobility Program participants who were different in terms of their nationality, Erasmus country, age, and gender (Krzaklewska, 2008). The study found that main motivation for these students to study abroad could be categorized in four main factors: academic (to study in a different educational system, expecting that studying abroad is valuable for future work opportunities), linguistic (increasing foreign language competency), cultural (living in a different country and experiencing new cultures), and personal (having new experiences and meeting new people).

According to METU International Cooperation Office student satisfaction survey, done with outgoing Erasmus students, 92% of the students state that participating in the program have contributed their personal development; and 91% of the students indicate that the second biggest gain of participating the program is to learn how to adapt a new culture (METU ICO, n.d.).

Another study conducted with participants who returned from studying abroad found that studying abroad experience drastically increases 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 different people (King, Findlay, & Ahrens, 2010). The results of the study implicated that studying abroad experience had an impact on cultural intelligence, too, since the participants referred to being more adaptable and flexible in different situations in the host country. Moreover, 98% of the interviewees also stated that this study abroad experience helped them develop cultural awareness, and 75% of them stated that their employer would be more likely to hire someone who had studied abroad.

The UK and France are two of the countries, which are highly preferred for studying abroad for Erasmus students. The language of the country or the language of the host institution play a big role on host country choice. Students usually tend to go to their neighboring countries because of cultural similarity between two countries and because of the advantage of their language competency, which they probably have

learned in their high school years. Moreover, when study abroad students are interviewed, European students whose native country is outside of European Union, 51% of the students stated that their reason for choosing France is the country's "cultural benefits" (Europe Education Formation France Agency & Campus France Study, 2014).

A study analyzed student mobility flow with a multi-origin multi-destination framework found that, in general, the academic offerings along with the cost of living in the host country are very significant, regardless of tuition fees of the institute, most probably because tuition fees are covered by grants (Beine, Noel, & Ragot, 2013).

On the other hand, the study conducted by Papatsiba (2006), found that study abroad students first experience a culture shock upon arrival to the host country, and this feeling of homesickness and difficulties in adaptation are enlarged when the cultural distance between the home country and the host country is bigger. This finding may help explaining why study abroad students prefer certain countries over others: cultural distance or proximity. Students may be choosing host countries that their native language is spoken in or countries that has cultural proximity to students' culture, in order to avoid facing possible difficulties.

To develop cultural intelligence, experiencing other cultures is vital; however, living in another culture may not be as easy as it sounds, because there are several barriers to international communication, let alone other possible undesirable experiences. As Keleş's (2013) study suggests, several barriers to international communication includes anxiety, assuming similarity instead of difference (to behave as one would in his or her own culture), ethnocentrism, stereotypes and prejudice (unfounded opinions and beliefs), nonverbal communication (gestures, proximity, use of touch, eye contact), and language. When these undesirable events occur, misunderstandings become inevitable, and a message may come across in a way that is different from what it is intended.

To eliminate cultural barriers, international communication needs to be ensured. Again, Erasmus Student Mobility Program seems to be effective when it comes to make young adults more competent in intercultural contexts. According to Papatsiba's (2015, as cited in Yağcı, Ekinci, Burgaz, Kelecioğlu, & Ergene, 2007) study, participating in Erasmus Student Mobility Program enabled students to overcome difficulties in intercultural contexts, and to tolerate ambiguities and uncertainties easily. Moreover, the study indicated that those students' awareness related to cultural and social issues have been increased after participating in the program. Benefits of cross-cultural education programs such as enhanced "cross-cultural awareness" and "intercultural sensitivity" were also demonstrated in various research (Anderson, Lawton, Rexeisen, & Hubbard, 2006; Back & Duhon, 2006; Chieffo & Griffiths, 2004, as cited in Peng, van Dyne, & Oh, 2015).

Several research have argued that participating in the Erasmus Student Mobility Program made students more employable in international context, because those students' language abilities have developed, their self-confidence have increased, and their adaptability to change have increased. Additionally, the participant students reported that this experience developed their understanding of people who come from other cultures or ethnic groups, and helped them to change their attitude positively (Dolga, Filipescu, Popescu-Mitroi, & Mazilescu 2015; Otero & McCoshan, 2006).

A qualitative study conducted with outgoing Turkish students indicated the positive effects of participating in the program emphasizing the importance of living together with people from other cultures, and facing everything together. According to the research, the participants reported that their "prejudices are minimized", "self-confidence is increased", and they have started to "behave in a more conscious way". Moreover, participants reported that they "do not feel Turkish anymore … started feeling like someone cosmopolitan" (Tekin & Hiç Gencer, 2013).

A study compared key skills required by employers and key skills developed through international mobility found that skills in both group are very similar. From this wide range study, it is clear that studying abroad contributes to students' self-awareness,

personal growth, and intercultural competence (EAIE, 2012). Some of these skills are presented in Table 2.3. below.

Table 2.2.
Key Skills Requested by Employers and Key Skills Developed through International Mobility

Key Skills Requested by Employers	Key Skills Developed through International Mobility
Self-awareness	Self-awareness, self-confidence, personal identity, sense of identity
Initiative and enterprise	Being informed, greater interest in global affairs and cross-cultural perspectives
Willingness to learn	Organizational skills, decision-making, creativity, taking on responsibility
Planning and organizing	Vision, independence, experience, broader outlook and attitude
Integrity	Problem-solving, coping strategies
Commitment / motivation	Patience, flexibility, adaptability, open-mindedness and humanity
Problem-solving	Team work and team leadership skills
Flexibility	Fluency, accuracy, and appropriateness of language competence
Self-management	Mediation skills, conflict resolution
Team work	Challenge to personal stereotypes, cultural relativism
Communication skills	Enhanced intercultural communication
Foreign languages	Cultural empathy
Networking	Non-judgmental observation
Leadership	Cultural understandings
Customer service	Ways of thinking and adaptation to complex cultural environments
Interpersonal skills	
Intercultural skills	

Adapted from Employability internationalization and employability: Are we missing a trick? How do employers value international experience? Prepare your students for the global job market EAIE Dublin 2012 Conference Report, 2012, EAIE

Supporting the findings of previously mentioned research, a study conducted by Papatsiba (2005), suggested that the outcomes of participating in Erasmus Student Mobility Program can be classified under three main categories: academic, linguistic, & intellectual outcomes, socio-cultural & relational outcomes, and personal outcomes or outcomes related to self-perception. During the study, Papatsiba (2005) collected self-reports from 80 students who have participated in Erasmus Program. Academic, linguistic, and intellectual outcomes indicated that students have enhanced their

knowledge of subject matter and of second language. Students even indicated that they are more proficient in the target language, and thank to this program, they felt more adapted, and seeking for jobs in related country. In terms of socio-cultural and relational outcomes, students have written that study abroad experience resulted in an intense "cultural enrichment", allowing them to appreciate "coexistence" more. And for personal outcomes, students have emphasized the impact of studying abroad in terms of taking responsibility, increased autonomy and maturity, and to become more adaptable.

Another study conducted in the U.S. investigated the identity change in American study abroad students after 12 weeks of studying abroad experience (Angulo, 2008). The results indicated that students who lived with a host family, after 12 weeks, started to have fewer conversations with other Americans and more conversations with people from host country; they started to spend more time talking in the native language of the host country; and they started to eat less American food and more food from the host country. These results indicated that studying abroad may lead to identity change in students, which emphasizes the "fluidity of identity change" through social interactions making students adopt the culture of the host country and become connected to it.

2.4. Personality

But why are some people already better in intercultural interactions? Why are some better at problem solving in diverse contexts? Recent research has indicated a strong relationship between individuals' cultural intelligence level and personality traits (Ang, Dyne, & Koh, 2006).

Personality has always been a topic of curiosity for people. As a term, it refers to individuals' subjective experience and behavior patterns, which is actually more complex than it seems. These subjective experiences and behavior patterns include both conscious and habitual behaviors, experiences from self and the external world, habits, and fears, as well as the unconscious behaviors and experiences. All these

experiences and behavior patterns affect each other, and create a complex, sophisticated entity that form a person's personality (Kernberg, 2016). Individual differences, such as self-esteem, self-efficacy beliefs, motivation, flexibility, willingness to communicate, attitudes towards social relationships, etc., build up a person's personality.

When we look at personality traits, Ang and Van Dyne (2008) group individual differences into two, which are trait-like and state-like constructs. Trait-like constructs are ones that are not affected by external changes, and are stable over time and place. Personality characteristics are trait-like constructs, since they do not change from situation to situation. On the other hand, state-like constructs are the ones that change over time and place. Anxiety can be given as an example to state-like constructs (as cited in Nel, Nel, Adams, & de Beer, 2015).

Although there are lots of ways to measure people's personality traits, one of the widely used ones is "Five Factor Theory". Evidence of this theory has been growing for more than 50 years, beginning with the research of D. W. Fiske (1949) and later expanded upon by other researchers including Norman (1967), Smith (1967), Goldberg (1981), and McCrae and Costa (1987) (Cherry, 2016). Unlike some of the early theories that were listing up to 4,000 personality traits; "Big Five Personality Traits" has five major dimensions. These dimensions "represent personality at the broadest level of abstraction, and each dimension includes a large number of distinct, more specific personality characteristic" (as cited in Öz, 2014).

The five broad dimensions of Big Five Personality Traits are conscientiousness, agreeableness, neuroticism, extraversion, and openness to experience. Table 2.4, (Costa & McCrae, 1992) below, shows the factors, and the characteristics of high and low scorers for those factors.

Table 2.3.

The Big Five Trait Factors and Illustrative Scales

Characteristics of the high scorer	Trait scales	Characteristics of the low scorer
NEUROTICISM (N)		
Worrying, nervous, emotional, insecure, inadequate, hypochondriacal	Assesses adjustment vs. emotional instability Identifies individuals prone to psychological distress, unrealistic ideas, excessive cravings or urges, and maladaptive coping responses	Calm, relaxed, unemotional, hardy, secure, self-satisfied
EXTRAVERSION (E)		
Sociable, active, talkative, person-oriented, optimistic Fun-loving, affectionate	Assesses quantity and intensity of interpersonal interaction activity level; need for stimulation; and capacity for joy.	Reserved, sober, unexuberant, retiring, quiet, aloof, task-oriented
OPENNESS (O)		
Curious, broad interests, creative, orginal, imaginative, untraditional	Assesses proactive seeking and appreciation of experience for its own sake; toleration for and and exploration of the unfamiliar	Conventional, down-to-earth, narrow interests, unartistic, unanalytical
AGREEABLENESS (A)		
Soft-hearted, good-natured, trusting, helpful, forgiving, gullible, straightforward	Assesses the quality of one's interpersonal orientation along a continuum from compassion to antagonism in thoughts, feelings, and actions	Cynical, rude, suspicious, uncooperative, vengeful, irritable manipulative, ruthless
CONSCIENTIOUSNESS (C)		
Organized, reliable, hard-working, self-disciplined, punctual, neat, ambitious, persevering, scrupulous	Assesses the individual's degree of organization, persistence, and motivation in goal-directed behavior. contrasts dependable, fastidious people with those who are lackadaisical and sloppy	Aimless, lazy, careless, lax, unreliable, weak-willed, hedonistic, negligent

Costa, P. T. & McCrae, R. R. (1992). *NEO-PIR: Professional Manuel*. Odessa, FL: Psychological Assessment Resources, p.2, as cited in, Cervone and Pervin 2008.

According to the table, people who are high in neuroticism tend to be nervous, stressful, and insecure; while those who are low tend to be calm, self-satisfied, and secure. People who are high in extraversion are more likely to be sociable, active, and talkative, while low scorers are quiet and reserved. People who are high in openness are found to be more curious, untraditional, and imaginative, while others who are low are more unartistic, conventional, and down-to-earth. High scorers in agreeableness tend to be forgiving, helpful, and good-natured, while low scorers tend to be rude, manipulative, and suspicious. Lastly, people who are high in conscientiousness are more likely to be organized, reliable, and punctual, while who are low are more likely to be aimless and careless.

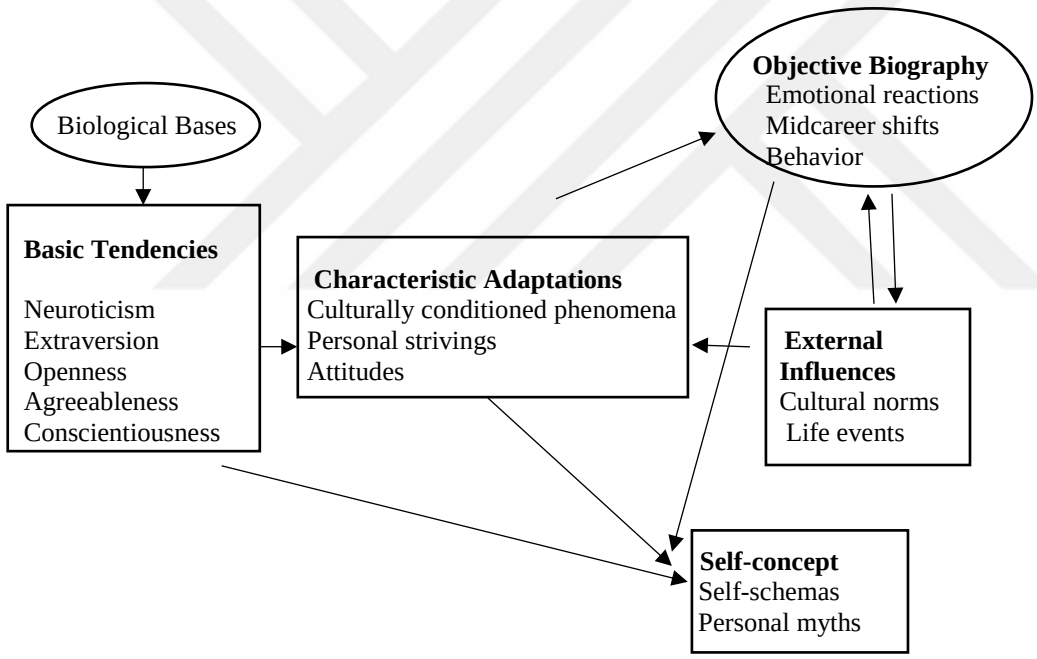


Figure 2.4. A representation of the Five Factor Theory Personality System. Costa and McCrae. (1996), as cited in Feist, J. and Feist, G. J. (2006). *Theories of personality*, 6th ed. McGraw Hill International Ed.

Figure 2.3, represents the Five Factor Theory Personality system, and in the figure, core components are illustrated in rectangles, while interfacing components are shown in ellipses. Basic tendencies are neuroticism, extraversion, openness, agreeableness, and conscientiousness, and they tend to be stable. They are influenced by biological

bases such as genes, hormones, and brain structures. Unlike basic tendencies, characteristic adaptations are mostly affected by external influences like skills and knowledge acquired by the individual, habits, attitudes, and relationships. Self-concept can be considered under the characteristic adaptations, but it is really important, that's why it is listed separately. Self-concept "consists of knowledge, views, and evaluations of the self, ranging from miscellaneous facts of personal history to the identity that gives a sense of purpose and coherence to life." Self-concept may influence individuals in a way that affects how one behaves in different situations. Other components of the figure are objective biography (everything that an individual does, thinks, and feels during his or her life), and external influences (how an individual responds to opportunities and demands of the situations) (Feist & Feist, 2006. pp. 420-421).

One of the reasons that Big Five Personality Traits is used in this study is that previous research have supported that Big Five Personality Traits successfully predict human behavior in different contexts, times, and cultures. Caligiuri (2000) emphasizes "the use of Big Five taxonomy in classifying personality traits, due to the representation being a universal adaptive mechanism, allowing individuals to deal with and meet the demands of physical, social, and cultural environments".

Five Factor Personality Traits can be used as the predictor of various things in many fields, such as the predictor of academic success, job satisfaction, adaptation to new environments, etc. Research reveals that individuals' personality traits indicate a high level of stability as they advance from about 30 years of age to the old age. Especially between 18 and 30 years of age, people tend to adopt a stable configuration of personality traits (Feist & Feist, 2006). The measurement of Five Factor Personality Traits can be very effective for college students who are young adults, as their personality is still being formed during these ages, and there are several research that investigates their adjustment to college life, academic achievement, or academic motivation (Komarraju, Karau, & Schmeck, 2009; Puher, 2009).

Since research claims that only "openness to experience" is significantly related to all four factors of cultural intelligence, a more detailed look to it is provided following.

Costa and McCrae (1992), while describing openness argue that “Open individuals are curious about both inner and outer worlds, and their lives are experientially richer.” Moreover, they claim that “Open individuals are unconventional, willing to question authority, and prepared to entertain new ethical, social, and political ideas”. According to Piedmont (1998), people who are more open to experiences seek and appreciate different experiences for its own sake, and they have a higher toleration for the unfamiliar. People who are low on openness tend to be conventional, unanalytical, unartistic, and narrow in interests; while high scorers tend to be creative, innovative, untraditional, reflective, and imaginative. McCrae (1987) also argues that openness to experience is positively related to intelligence, particularly creativity (Smith, 2013).

2.4.1. Personality Development in College Students

Attending to college, with no doubt, contributes to each student’s social and personal development. According to Trent and Medsker’s (1956 – 1963) study conducted by investigating the paths of 10,000 high school graduates, it was founded that the individuals who pursue a college education became "less stereotyped and prejudiced in their judgments, more critical in their thinking, and more tolerant, flexible, and autonomous in attitude" (pp. 129–130).

According to Feldman and Newcomb (1969), the outcomes of attending college can be summarized in several points. Some of the findings are as follows: Starting from freshman year, by the end of senior year, college students’ experience “declining 'authoritarianism,' dogmatism, and prejudice, together with decreasingly conservative attitudes toward public issues and growing sensitivity to aesthetic experiences" (p. 326). Students’ personality subjectifies the college experience; however, some traits like openness to experience and motivation may enhance the experience.

In Bowen’s (1977) study, a framework is provided concerning the outcomes of college education, which includes three main aspects: cognitive learning outcomes (verbal skills, intellectual tolerance, creativity, aesthetic sensibility, wisdom), emotional and moral development (self-discovery, human understanding, values and morals), and

practical competence (leadership, productivity, citizenship). He also emphasizes that college years help individuals finding their identity, enhancing their tolerance towards different ethnic and cultural groups, and towards people who basically have different opinions on anything.

Pascarella and Terenzini's (1991; as cited in College and its Effect on Students - Early Work on the Impact of College, Nine Generalizations, Later Studies, Pascarella & Terenzini, n.d.) work, which examines more than 2,600 studies over a period of fifty years, came up with ten outcomes related to college education. These outcomes include: a) enhancements in subject knowledge, b) intellectual development, c) changes of identity, self-concept, and self-esteem, d) changes in relating to others and external world, e) changes in attitudes and values, f) moral development, g) educational attainment, h) career development, i) economic benefits, and j) quality life after college. In their work, Pascarella and Terenzini also concluded that college students become more tolerant to different opinions in the society by adopting non-authoritarian thinking skills, and becoming less ethnocentric.

As mentioned studies also suggest, it is clear that college experience is not made up only of subject matter learning; rather, it is related to personal development of young adults. As personality tends to develop after childhood, and it gets affected by the external environment and surroundings during early adulthood, between the ages 20 to 30, college education is a great opportunity for students to find themselves, and to develop their identity. College experience helps students to get in contact with other people who represent different cultures, to develop intellectually, and to get a foundation for adult psychosocial development (Skoe & von der Lippe, 1998, p.6).

As mentioned in earlier chapters, Erasmus Student Mobility Program is one of the most effective ways for experiencing a new culture for a college student. Living in a different country for a certain period of time helps young adults to really see their own culture, to find the similarities and differences between other cultures, to meet new people who represent different cultural and social backgrounds, religions, ethnicities, etc., and to become more tolerant to differences and less ethnocentric.

A study conducted regarding the experiences of Turkish teacher candidates during their Erasmus experiences found that this experience helped teacher candidates form positive perceptions about other's cultures. Moreover, these teacher candidates stated that overcoming problems root from differences in ethnicity, language, culture, and prejudice become easier, since those individuals experience these problems on their own, and have a chance to raise their awareness towards cultural differences (Ersoy, 2013).

2.5. Cultural Intelligence and Personality

When we consider the relationship between cultural intelligence and personality traits; we see an association between those two. Five factor personality traits are demonstrated as determinants of cultural intelligence (Ang et al., 2006). Individuals' personality impacts how they perceive a different culture apart from their own, and it affects their inferences about the "new" environment that they are experiencing. Thus, personality play a big role on how individuals internalize the cross-cultural experiences that lead to developing their cultural intelligence (Şahin, Gürbüz, & Köksal, 2014).

As argued in Barbuto Jr., Beenen, and Tran (2015), individual differences along with motivational factors should be taken into consideration while study abroad programs' success is being measured. In their study, the researchers found that students' self-evaluation and their level of ethnocentrism have significant positive and negative effect, respectively, on study abroad success. They argued that students with high self-evaluation tend to be more motivated to enjoy local cultures and to engage in cross-cultural interactions; while students with high ethnocentrism tend to have less interest in getting to know different cultures. Moreover, the results of the study also indicated that self-evaluation and ethnocentrism is directly related to motivational cultural intelligence, positively and negatively, respectively.

Moreover, knowing students' personality traits and individual differences, even in general, before they go abroad enables program administrators or schools to take

precautions regarding these differences; and furthermore, students at risk may be identified in advance to help them make their study abroad experience more successful. This makes the study abroad programs more successful for each student, and likewise as a whole.

When five factor personality traits are examined individually, it is argued that conscientiousness is related to being responsible, planful, organized, dependable, and disciplined. This dimension is associated with metacognitive cultural intelligence, because metacognitive CQ is about an individual's cultural consciousness and awareness during intercultural interactions. Those people who are high in conscientiousness are tend to pay attention to cultural differences, planning and questioning cultural assumptions and norms, etc. (Ang, Dyne, & Koh, 2006).

The second dimension, agreeableness, is related to being friendly, helpful, flexible, and open-minded. People who are high in agreeableness are generally more likeable, supportive, and easy-going when compared to those who are low. In terms of CQ, agreeableness is associated with behavioral CQ; because, they are both related to verbal and nonverbal actions in different social contexts. People who are high in agreeableness are more flexible in different cultural environments (Ang, Dyne, & Koh, 2006).

Another dimension is related to emotional expression, and there are two opposite sides: emotional stability and neuroticism. People who are emotionally stable tend to be more even-tempered and calm, while neurotic people are generally more depressed, angry, embarrassed, worried, and anxious, etc. Just as agreeableness, emotional stability is associated with behavioral CQ, since emotionally more stable people tend to handle culturally diverse situations better (Ang, Dyne, & Koh, 2006).

Next dimension is extraversion, and it is related to being sociable, active, energetic, and talkative. It is associated with behavioral and motivational CQ. People who are high in extraversion tend to be high in motivational CQ, as well, because they are more sociable and more self-confident (Ang, Dyne, & Koh, 2006).

And the last dimension, which is openness to experience, is broadly related to being imaginative, creative, open-minded, and intelligent. Openness to experience is associated with all four factors of CQ; because, people who are high in openness to experience tend to think about thinking (metacognitive CQ), they are cultured, open-minded, and they know about specific norms and practices (cognitive CQ), they are also curious about other people and cultures (motivational CQ), and they are successful at altering their behaviors in different situations to fit in (behavioral CQ) (Ang, Dyne, & Koh, 2006).

According to previous research, all four factors of cultural intelligence, which are cognitive, metacognitive, motivational, and behavioral CQ, are directly and significantly related to openness to experience (Ang et al, 2006; Triandis, 2006). Previous studies have claimed that openness to experience moderates creativity (Leung, Maddux, Galinsky, & Chiu, 2008); and it "clearly shapes behavior and interactions in multicultural settings". According to their study, college students' study abroad experience ensured a significant increase in knowledge of new cultures and openness to experience.

"Openness to experience" personality trait also has a strong relationship with study abroad experiences. A study conducted by Martin, Katz-Buonincontro, and Livert (2015), argued that a 3 month study abroad experience increased students' openness to new experiences and cultural understanding. Moreover, the results of the study indicated that students who were less open to experiences before going abroad benefitted most from the experience.

Caligiuri (2000), argued that people living in host countries and who are high in openness to experience are more likely to have successful interactions with other people since they tend to actively develop these relationships, to learn new cultural norms and appropriate behavior.

Another study conducted to investigate the job satisfaction of expatriates in relation to cultural intelligence and openness to experience personality trait found that when

expatriates are high in openness to experience also have cultural intelligence, they are satisfied with their jobs in another culture (Lie, Suyasa, & Wijaya, 2016).

A research study by Şahin, Gürbüz, and Köksal (2014) examined how international assignment affects cultural intelligence, and personality was taken as a moderator. According to the results, a 6-month of living abroad significantly changed cultural intelligence level of the participants. Moreover, personality has an important role on the development of CQ. Results indicated that all four factors of CQ developed in this time period. And individuals who are higher in extraversion tend to develop more behavioral and metacognitive CQ, due to their flexible behavior and enjoyment of interpersonal interactions. Also, individuals who are higher in openness to experience tend to develop motivational CQ.

2.6. Summary

The purpose of this study was to investigate the difference between college students' cultural intelligence who studied abroad within the scope of Erasmus Student Mobility Program and who have never studied abroad, when their personality trait "openness to experience" is controlled.

In this chapter, related literature were presented. The first section covered the definition of *culture*; how it differs from "human nature" and "personality" (Hofstede & Hofstede, 2005). It was highlighted that culture includes various beliefs, values, ideas, and symbols (Thio, 2008); thus, cultural differences between countries, nations, and even between small groups of people are inevitable. In the second section, the definition of *cultural intelligence* (CQ) was provided. It was emphasized that cultural intelligence is the ability to communicate effectively in multicultural contexts, and it has four sub-dimensions, which are metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ (Earley & Ang, 2008). Moreover, in this section, previous studies related to the importance of cultural intelligence were provided: how cultural intelligence plays a role on cross-cultural adjustment (Templer, Tay, & Chandrasekar, 2006); how cultural intelligence affects intercultural behavior (Groves, Feyerherm, & Gu, 2015); and how it affects task performance (Presbitero, 2017), and creativity

(Bogilovic & Skerlavaj, 2016). It was emphasized that one of the ways to develop cultural intelligence is to create international immersion experiences (Black & Duhon, 2006; Gullekson & Tucker, 2013).

Moving forward, Erasmus Student Mobility Program was mentioned in the following section in this chapter. The emergence of the program in Europe and in Turkey, number of students who participated in the program, and several research studies related to the outcomes of the program were presented in this section. It was presented that participating in Erasmus Student Mobility Program enabled college students to be more self-confident, more flexible, more adaptive to change (King, Findlay, & Ahrens, 2010), and more employable in international arena (Dolga, Filipescu, Popescu-Mitroi, & Mazilescu, 2015).

In the next section, how *personality,* especially *openness to experience* trait, is related to the present study was discussed; Big Five Personality Traits (Costa & McCrae, 1992) were presented. Next, openness to experience trait and its relationship to cultural intelligence were discussed. Several previous research studies were presented in order to clarify the need to control for the openness to experience personality trait in this study. It was discussed that only openness to experience personality trait is directly and strongly related to all sub-dimensions of cultural intelligence (Ang, van Dyne, & Koh, 2006); and moreover that it is related to study abroad experiences (Martin, Katz-Buonincontro, & Livert, 2015).

This chapter presented the related previous literature to the present study. The next chapter, Methodology, presents the design of the study.

CHAPTER 3

METHODOLOGY

In this chapter, methodological procedures are presented. The major topics are overall design of the study, population and sample, variables of the study, data collection instruments, data collection procedure, ethical permission, data analysis, internal and external validity, and limitations of the study, respectively.

This study was designed as a quantitative research with a causal comparative design. The reason this method was used is because an already existing difference of cultural intelligence levels between college students who studied abroad and who have not was investigated; no manipulations were made. The target population of this study was college students, and the sample was drown from Middle East Technical University students.

3.1. Design of the Study

This quantitative research was designed as a causal comparative research. 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 does not (Fraenkel, Wallen, & Hyun, 2011). In this study, the aim was to determine an already existing difference, which is the difference in cultural intelligence, between two groups; one has Erasmus Student Mobility experience, and one has not. And the mediating effect of college students' personality trait openness to experience on these variables was taken into consideration.

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, and the effect of participating has already affected, their cultural intelligence. Figure 3.1, below, demonstrates the study's structure in general.

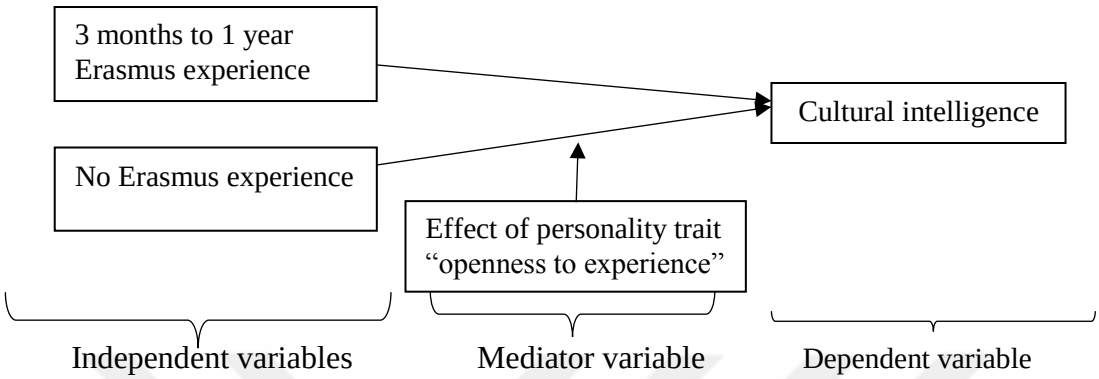


Figure 3.1. Demonstration of research structure

3.2. Population and Sample

The population in this study was all college students in Turkey, and the study took place in the capital city of Turkey, Ankara. In Turkey, most young adults leave their own cities for college education. As this study conducted in Middle East Technical University, it is appropriate to mention the university's student population. According to student placements in university entrance exam, 3,029 students who come from 77 different cities were placed to METU in 2016 (METU, 2016).

The target population in this research were college students. Sample was drown from Middle East Technical University. As the study aimed to examine cultural intelligence of students who have attended the Erasmus Student Mobility Program and who did not, with respect to their personality trait, for convenience reasons students in METU were reached out. The first group consisted of students who participated in the program. These students were those who returned to Turkey after 3 to 12 months period of studying abroad. The students were selected from different departments who participated in Erasmus program in last three years (2016-2015, 2015-2014, or 2014-2015). The second group consisted of students who did not participate in Erasmus Student Mobility Program, and who have not been abroad for educational purposes.

3.3. Variables of the Study

The operational definitions of the variables investigated in this study are presented in this part.

Participating Erasmus Student Mobility Program: Participating Erasmus Student Mobility Program or not participating, in this study, is an independent variable, categorical and nominal in terms of its characteristics, that assesses whether participants had international immersion experiences, or not. This assessment is basically done by asking participants if they participated in the student exchange program in last 3 years, or not.

Cultural intelligence: Cultural intelligence is a dependent variable in this study that assesses participant's ability to function effectively in contexts that is defined by cultural differences. The assessment is done on a 7- point rating scale (1=strongly disagree, and 7=strongly agree). Metacognitive cultural intelligence part has 4 items, cognitive cultural intelligence part has 6 items, motivational cultural intelligence part has 5 items, and behavioral cultural intelligence part has 5 items. Some of the items of cultural intelligence scale are: "I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it", and "I know the arts and crafts of other cultures". During the analyses metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ are measured as four dependent variables, which are continuous and interval in terms of their characteristics.

Personality traits: Personality is the covariate in this study that assesses participant's pattern of "relatively permanent traits and unique characteristics that give both consistency and individuality to a person's behavior". The assessment is done on a 5-point rating scale (1=strongly disagree, and 5=strongly agree). The Big Five Personality scale has 5 factors and 44 questions in total; however, in this study only "openness to experience" scores are taken into account for the sake of this research. Openness to experience part of the scale has 10 items. Some of the items of the scale include: "I see myself as someone who is talkative", "I see myself as someone who is

original, comes up with new ideas", and "I see myself as someone who is curious about many different things".

3.4. Data Collection Instruments

Data were collected with an instrument consists of three sections: Demographic information, cultural intelligence scale, and big five inventory scale. Of these scales, cultural intelligence and big five inventory scales are pre-developed scales. The following sections cover a detailed explanation about instrumentation of the study.

3.4.1. Demographic Information

This part consisted of ten questions to examine the characteristics of the participants in detail. The categorical variables were gender, department (their major), grade (what 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.

3.4.2. Cultural Intelligence Scale

In order to analyze cultural intelligence, Cultural Intelligence Scale was used (Cultural Intelligence Center, 2005). The scale has 20 items, and it aims to measure participants' cultural intelligence in terms of cognitive, metacognitive, motivational, and behavioral cultural intelligence. The adaptation of the scale into Turkish was done by other researchers before (İlhan & Çetin, 2014); however, since the context of this study was different, 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”, “Sözel olmayan davranışlarımı kültürlerarası etkileşimin gereklerine göre değiştirebilirim / I change my non-verbal behavior when a cross-cultural interaction requires it”, and “Kültürlerarası etkileşimlerde kullandığım kültürel bilgimin farkındayım / I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds”.

3.4.2.1. Pilot Study for the Cultural Intelligence Scale

The pilot study was conducted to provide validity and reliability evidence for the Cultural Intelligence scale. Exploratory Factor Analysis (EFA) was performed through SPSS 23 to discover the factor structures of the scale. For data collection, students who are studying at different departments and grades were chosen. The scale was administered to total 297 METU 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 were between 18 and 34. 148 of the students (50%) have participated in the Erasmus Student Mobility program, and 149 of them (50%) have not.

Metric variables, correlations above .30, Barlett’s Test of Sphericity, Kaiser-Meyer-Olkin (KMO) value, absence of outliers and multivariate normality are assumptions of EFA (Hair, Black, Babin, & Anderson, 2010). Since the Cultural Intelligence is continuous, the 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 for (*b2p* = 529.44, *p*< .001) was significant showing that multivariate normality assumption was violated. 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 item B2 (Behavioral Cultural Intelligence 2) and C2 (Coginitive Cultural Intelligence 2), and are indicated in Table 3.1 below. 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.

Table 3.1.
Intercorrelations for Items of the Cultural Intelligence Scale

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
MC1	1																			
MC2	.41	1																		
MC3	.73	.39	1																	
MC4	.48	.34	.43	1																
C1	.37	.17	.37	.22	1															
C2	.15	.03	.18	.14	.16	1														
C3	.38	.22	.36	.29	.52	.31	1													
C4	.21	.18	.29	.17	.46	.19	.52	1												
C5	.21	.08	.26	.30	.43	.21	.50	.55	1											
C6	.20	.19	.24	.22	.35	.25	.43	.39	.49	1										
M1	.19	.13	.27	.29	.17	.29	.21	.17	.22	.25	1									
M2	.26	.15	.34	.20	.25	.17	.27	.21	.18	.28	.55	1								
M3	.25	.13	.32	.19	.33	.14	.31	.31	.23	.27	.43	.59	1							
M4	.09	.01	.16	.19	.24	.22	.28	.25	.26	.34	.50	.45	.61	1						
M5	.25	.13	.24	.22	.27	.24	.33	.27	.26	.31	.44	.45	.57	.61	1					
B1	.25	.19	.32	.29	.17	.22	.35	.29	.27	.32	.31	.28	.27	.25	.34	1				
B2	-.01	.21	.03	.10	-.06	-.01	-.01	.01	-.06	.01	-.07	-.12	-.01	.00	.06	.15	1			
B3	.18	.20	.18	.25	.15	.10	.20	.13	.13	.20	.23	.23	.20	.12	.21	.39	.10	1		
B4	.27	.23	.25	.39	.25	.15	.29	.21	.24	.28	.34	.31	.33	.37	.44	.38	.18	.45	1	
B5	.27	.27	.25	.28	.27	.10	.33	.21	.19	.33	.27	.26	.24	.24	.32	.40	.13	.44	.76	1

*MC: Metacognitive, C: Cognitive, M: Motivational, B: Behavioral

Catell's Scree test and eigenvalue criterion were examined to determine the retained number of factors. The breakpoint of the plot reflects five-factor dimension in Figure 3.2. Table 3.2 shows the eigenvalues, percentages of variance, and cumulative percentages for the scale.

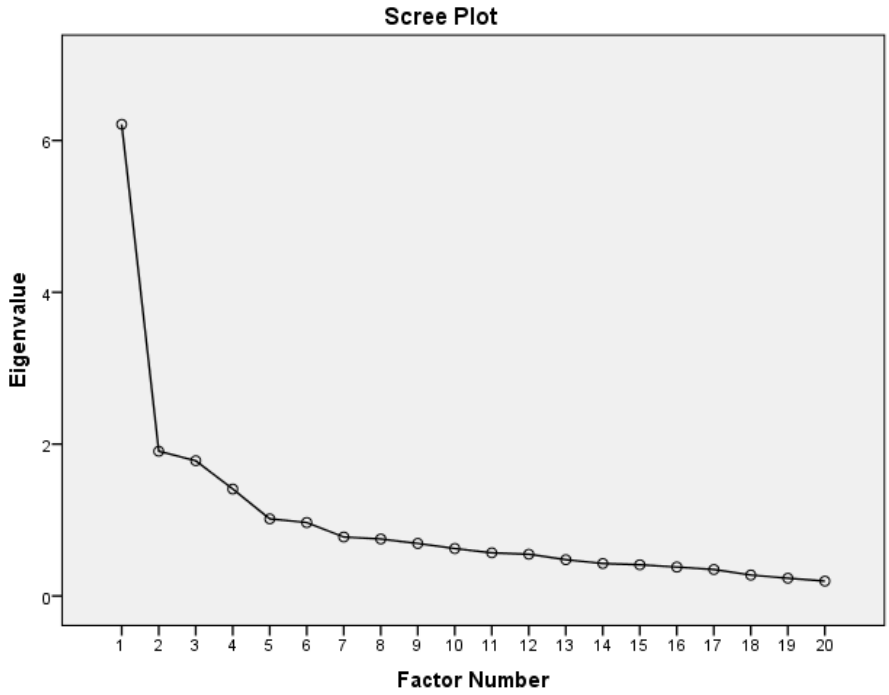


Figure 3.2. Scree plot for Cultural Intelligence Scale

Table 3.2.

Eigenvalues, Percentages of Variance, and Cumulative Percentages for the Cultural Intelligence scale

Factor	Eigenvalue	% of variance	Cumulative %
1	6.21	31.07	31.07
2	1.91	9.53	40.60
3	1.78	8.90	49.50
4	1.41	7.04	56.54
5	1.02	5.08	61.62

Table 3.3.

Factor Loadings of the Cultural Intelligence Scale

Item	Factor Loading				
	1	2	3	4	5
MC 1	.89				
MC 2	.47				
MC 3	.81				
MC 4	.45				
C 1		.53			
C 2		.27			
C 3		.66			
C 4		.71			
C 5		.79			
C 6		.55			
M 1			-.62		
M 2			-.69		
M 3			-.78		
M 4			-.76		
M 5			-.63		
B 1				.27	
B 2				.22	
B 3				.46	
B 4				.79	
B 5				.86	

*MC: Metacognitive, C: Cognitive, M: Motivational, B: Behavioral

When the factor loadings are inspected, as shown in Table 3.3., some items were detected with very low factor loadings. And although the scree plot and eigenvalues indicated 5 factors, when we look at Table 3.3. above, it is seen that the fifth factor has no items. Therefore, item C 2 (Cognitive Cultural Intelligence 2) and item B 2 (Behavioral Cultural Intelligence 2) were removed from the scale, and the analysis was run one more time. Below, Table 3.4. indicates intercorrelations for the remaining items, and Figure 3.3. shows the scree plot.

Table 3.4.

Intercorrelations for Items of the Cultural Intelligence Scale

Item	1	2	3	4	5	7	8	9	10	11	12	13	14	15	16	18	19	20
M1	1																	
M2	.41	1																
M3	.73	.39	1															
M4	.48	.34	.43	1														
C1	.37	.17	.36	.22	1													
C3	.38	.21	.35	.30	.53	1												
C4	.22	.18	.29	.18	.47	.53	1											
C5	.21	.08	.25	.31	.44	.51	.56	1										
C6	.20	.18	.23	.23	.37	.45	.40	.50	1									
M1	.20	.12	.26	.31	.19	.24	.19	.24	.27	1								
M2	.27	.14	.34	.21	.27	.30	.23	.20	.30	.56	1							
M3	.25	.12	.32	.20	.35	.34	.33	.26	.30	.45	.61	1						
M4	.09	.01	.16	.19	.24	.29	.26	.27	.35	.50	.46	.62	1					
M5	.25	.12	.24	.24	.28	.36	.29	.28	.34	.46	.47	.59	.61	1				
B1	.26	.19	.31	.30	.19	.38	.31	.29	.34	.34	.30	.30	.26	.37	1			
B3	.18	.20	.18	.24	.15	.18	.12	.12	.19	.21	.22	.19	.11	.20	.38	1		
B4	.28	.23	.25	.40	.26	.31	.22	.25	.30	.36	.32	.35	.37	.45	.39	.44	1	
B5	.27	.27	.24	.30	.27	.34	.22	.20	.34	.29	.27	.25	.24	.33	.41	.44	.76	1

*MC: Metacognitive, C: Cognitive, M: Motivational, B: Behavioral

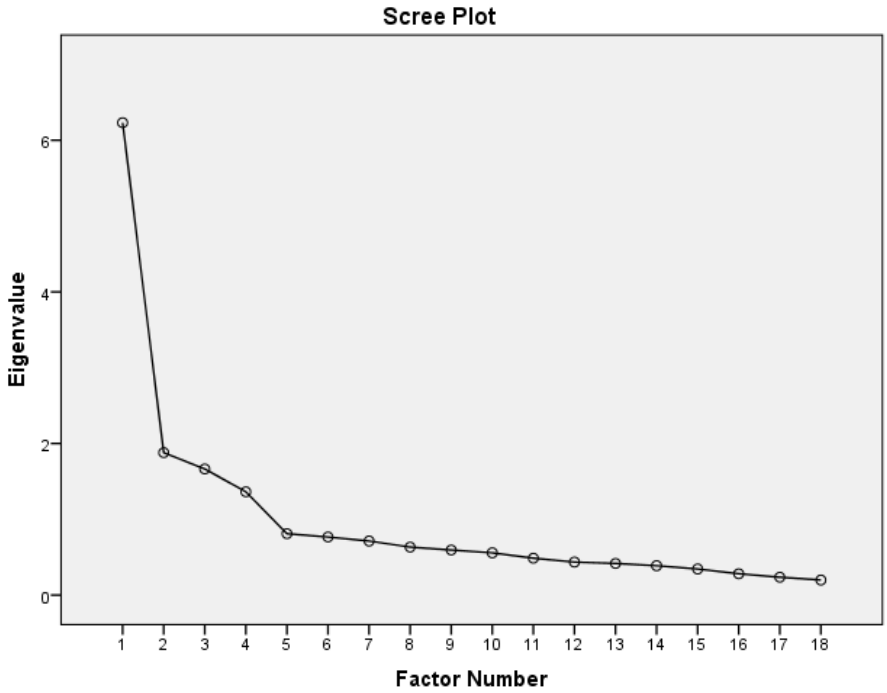


Figure 3.3. Scree plot for Cultural Intelligence Scale

After two items were deleted, the eigenvalue suggested four factors, in compliance with the original scale. Table 3.5. shows eigenvalues, percentages of variance and cumulative percentages, and Table 3.6. shows factor loadings.

Table 3.5.

Eigenvalues, Percentages of Variance, and Cumulative Percentages for the Cultural Intelligence scale

Factor	Eigenvalue	% of variance	Cumulative %
1	6.23	34.62	34.62
2	1.88	10.44	45.06
3	1.66	9.24	54.30
4	1.36	7.57	61.87

Table 3.6.

Factor Loadings of the Cultural Intelligence Scale

Item	Factor Loading			
	1	2	3	4
MC 1	.87			
MC 2	.45			
MC 3	.80			
MC 4	.42			
C 1		-.56		
C 3		-.67		
C 4		-.76		
C 5		-.79		
C 6		-.53		
M 1			.63	
M 2			.70	
M 3			.79	
M 4			.78	
M 5			.65	
B 1				.34
B 3				.52
B 4				.80
B 5				.85

*MC: Metacognitive, C: Cognitive, M: Motivational, B: Behavioral

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.

3.4.3. Big Five Inventory Scale

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 before by another researcher (Alkan, 2007). However, since the context of this study was different, the translation of the scale into Turkish was made by the researcher again. In order to adapt the scale, English – Turkish and Turkish – English translations and back translations were made, and two other experts were consulted. This scale has 44 statements where participants decide whether they agree or not about themselves, and it is a 5 Likert type scale. In this study; however, only "openness to experience" trait scores are taken into account. In openness to experience part, there are 10 questions.

Sample items from the scale include "Orijinal biriyim, yeni fikirler üretirim / I see myself as someone who is original, comes up with new ideas", "Sanatsal ve estetik şeyler benim için önemlidir / I see myself as someone who values artistic, aesthetic experiences", and "Fikirlerle oynamayı, benim için ne anlama geldikleri üzerinde düşünmeyi severim / I see myself as someone who likes to reflect, play with ideas".

3.4.3.1. Pilot Study for the Big Five Inventory Scale

The pilot study was conducted to provide validity and reliability evidence for the Big Five Inventory scale's Openness to Experience factor. Exploratory Factor Analysis (EFA) was performed through SPSS 23. The scale was administered to total 297 METU 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 were between 18 and 34. 148 of the students (50%) have participated in the Erasmus Student Mobility program, and 149 of them (50%) have not.

Metric variables, correlations above .30, Barlett's Test of Sphericity, Kaiser-Meyer-Olkin (KMO) value, absence of outliers and multivariate normality are assumptions of EFA (Hair et al., 2010). 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. 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 were fixed to one. Table 3.7. below shows eigenvalues, percentages of variance, and cumulative percentages for the factors. Additionally, Table 3.8. presents the correlations for the items, and Figure 3.4 shows the scree plot. When the factor loadings are inspected, as shown in Table 3.9. some items were detected with very low factor loadings. Therefore, item 10 and 35 were removed from the scale. Barlett's Test of Sphericity result was significant (x^2(45)=884.44, p<.05). KMO value was .79.

Table 3.7.

Eigenvalues, Percentages of Variance, and Cumulative Percentages for Openness to Experience

Factor	Eigenvalue	% of variance	Cumulative %
1	3.49	34.94	34.94

Table 3.8.

Intercorrelations for the Items of the Openness to Experience

Item	5	10	15	20	25	30	35	40	41	44
5	1									
10	.21	1								
15	.49	.19	1							
20	.44	.16	.29	1						
25	.62	.18	.45	.64	1					
30	.19	.18	.11	.19	.22	1				
35	.17	.12	.13	.20	.20	.21	1			
40	.37	.27	.30	.31	.32	.26	.15	1		
41	.18	.17	.09	.12	.19	.62	.32	.13	1	
44	.19	.25	.15	.19	.20	.69	.20	.33	.56	1

Table 3.9.

Factor Loadings of the Openness to Experience

Item	Factor Loading
	1
5	.64
10	.35
15	.48
20	.56
25	.68
30	.56
35	.34
40	.51
41	.50
44	.58

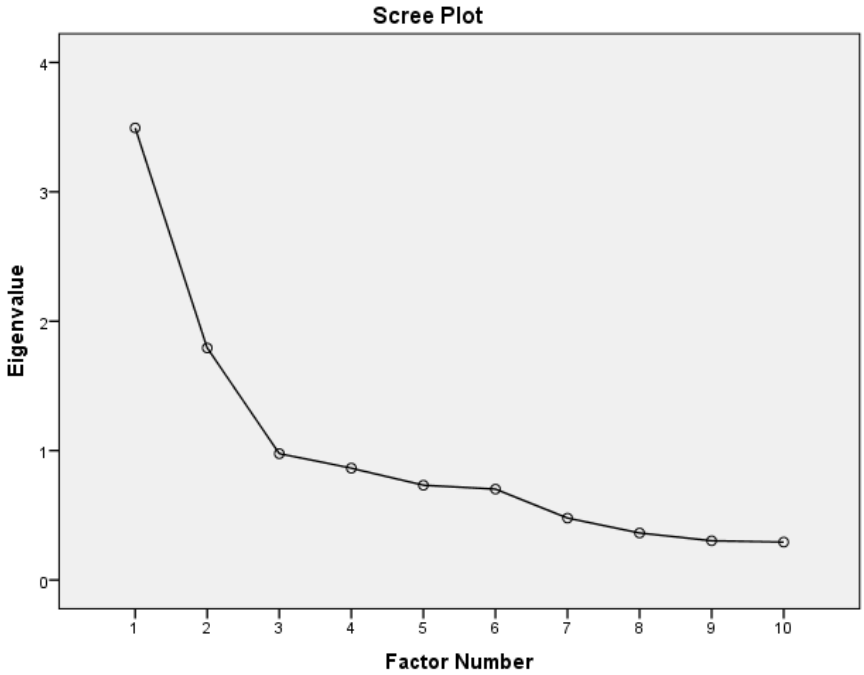


Figure 3.4. Scree Plot for Openness to Experience Factor

After the items 10 and 35 are removed from the scale, EFA was run one more time. Table 3.10. shows eigenvalues, percentages of variance, and cumulative percentages for the factor; Table 3.11. presents intercorrelations for the items, and Table 3.12. presents factor loadings for the items. Additionally, Figure 3.5. shows scree plot for the factor. Barlett's Test of Sphericity result was significant ($x^2(28)=817.318$, $p<.05$). KMO value was .77.

Table 3.10

Eigenvalues, Percentages of Variance, and Cumulative Percentages for Openness to Experience

Factor	Eigenvalue	% of variance	Cumulative %
1	3.23	40.38	40.38

Table 3.11.

Inter-correlations for the Items of the Openness to Experience

Item	5	15	20	25	30	40	41	44
5	1							
15	.49	1						
20	.44	.29	1					
25	.62	.45	.64	1				
30	.19	.11	.19	.22	1			
40	.37	.30	.31	.32	.26	1		
41	.17	.09	.12	.19	.62	.12	1	
44	.19	.16	.18	.19	.69	.33	.58	1

Table 3.12.

Factor Loadings of the Openness to Experience

Item	Factor Loading 1
5	.66
15	.49
20	.58
25	.71
30	.54
40	.51
41	.45
44	.54

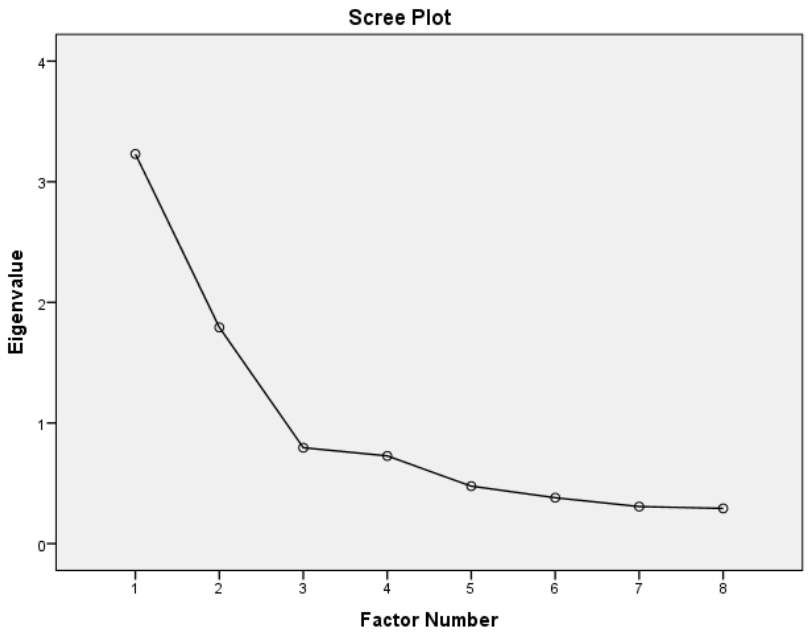


Figure 3.5. Scree Plot for Openness to Experience Factor

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.

3.5. Data Collection Procedures

The data collection for the pilot study lasted for a month in the Fall semester of 2016-2017 academic year. 300 students were reached by the researcher by going to randomly selected classrooms and with the help of METU International Cooperations Office in order to identify students who had participated in the Erasmus program. When the data collection took place in the classrooms, the professors were informed about the research and asked their consent; and then the surveys were distributed to the students based on their volunteering. The same survey was used throughout the study: demographic information form, cultural intelligence scale, and openness to experience scale, by the researcher in order to eliminate data collector characteristics. The participants were notified that their information and results will be confidential, and they will not be shared with anybody else, but the researcher. No questions asked to participants that can reveal their identity. Approximately 15 minutes were needed for participants to fill in the survey.

The data collection procedure for the main study lasted for two months in the Spring semester of 2016-2017 academic year.

3.6. Ethical Permission

Before starting to collect the data, the permission required from the Middle East Technical University Human Subjects Ethics Committee (Appendix A) was received. Confidentiality of the present research data was guaranteed as not stating the name of the participants. Participants were informed that they have the right to withdraw from the study whenever they wanted.

3.7. Data Analysis

The main data analyses: descriptive and inferential analyses were conducted by using Statistical Package for Social Sciences (SPSS) 23 program 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, descriptive statistics: mean, median, standard deviation (*SD*), skewness and kurtosis were calculated; assumptions of MANCOVA were checked; and inferential statistics: results of MANCOVA and follow-up analyses were performed.

The reason to use MANCOVA for the data analysis was to investigate the difference between participating and not participating in Erasmus Student Mobility Program on cultural intelligence level of college students under the control of the effect of personality trait "openness to experience" as the covariate.

3.8. Internal Validity

Controlling or being aware of possible internal threats is very important in order to increase internal validity of the research study. The biggest internal threat in this study is subject characteristics. As this study took place in Middle East Technical University, the participants were students in the university. As the medium of instruction is English in METU, and METU is highly multicultural in terms of student and teacher backgrounds, the students, even the ones who have never been abroad, come into contact with people from other cultures on a daily basis, and they have a good mastery of English language. Because of this educational context, it is very important to recognize this limitation. However, in terms of participating in Erasmus Student Mobility Program, its effect is more observable on students in a sense that they are experiencing every aspect of another culture in its authentic place, rather than coming into contact with representatives of another culture.

The second threat to internal validity is that this study was a retrospective study: it lacked assessing students' cultural intelligence levels before and after they went

abroad for Erasmus Student Mobility Program. Doing pre and post-test would be more interpretive in terms of explaining the increase in college students' cultural intelligence levels due to the period they have spent abroad.

3.9. External Validity

The target population in this study were college students in Turkey. Random sampling method could not be used in this study, since some students have already studied abroad, and some have never gone abroad. For convenience reasons, Middle East Technical University was selected to conduct the research. There are approximately 30.000 students in METU; however, there were 599 students who participated in Erasmus Student Mobility Program during last three academic years. The sample in this study was 450 students; 128 of them have studied abroad and 322 of them have not studied abroad. Since the data from 148 students who have participated in Erasmus program were used during pilot study, and 128 other students who have participated in Erasmus program, it can be concluded that 46% of the accessible population were included in the study. Although this is a very good ratio, the generalizability of the results to Turkey can be discussed, because it can be argued that METU students' cultural intelligence level is already high regardless of studying abroad experiences, since the medium of instruction is English and there are a serious number of international students compared to other higher education institutions.

3.10. Limitations of the Study

This was a causal comparative study that only includes quantitative data for the analysis. In order to examine the underlying reasons for the differences in behavior, student motivation, and other variables, a qualitative follow-up study could be included. Carrying out interviews with students who participated in the Erasmus Student Mobility Program may lead to a deeper understanding of the phenomenon *cultural intelligence*.

Present study took place in Middle East Technical University, Ankara, and the participants were undergraduate or graduate level students studying in various departments. Since METU is an English medium institution, and one of the colleges in Turkey, which has a high number of incoming international students, generalizability of the current study can be problematic. Because METU students are more likely to interact with other students from a variety of cultures regardless of participating in the Erasmus Student Mobility Program, all participants' cultural intelligence scores could be relatively approximate compared to other colleges.

This study included two separate groups of students: the ones who studied abroad within the scope of Erasmus Student Mobility Program and the ones who did not. In order to examine the increase that studying abroad caused, pre-test post-test method could be used. However, because the research idea had appeared after the start of the term, by the time this research took place, the students were already gone abroad or returned back.

CHAPTER 4

RESULTS

In this section, the findings of the study are presented. Descriptive statistics, data analyses, and results are discussed in detail, respectively.

4.1. Descriptive Statistics

In this part, descriptive statistics are represented to better understand and summarize the data. First, descriptive analyses were conducted by using SPSS 23. Data were analyzed regarding number of participants (N), minimum and maximum, mean, and standard deviation (SD).

A total number of 450 students were participated in the main study. 256 of the students (56.9%) were female, 187 (41.6) were male, and 5 students (1.1%) identified themselves as 'other' or they did not indicate sex. Participants' age ranged from 18 to 34, with a mean of 22. 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 4.1. shows the valid and missing values for the data, and Table 4.2. represents the descriptive statistics.

Table 4.1.

Valid and Missing Values for the Data

	Valid		Missing	
	N	Percent	N	Percent
Sex	448	99.6%	2	.4%
Grade	450	100.0%	0	0%
CGPA	449	99.8%	1	.2%
Erasmus experience	450	100.0%	0	0%

Table 4.2.

Descriptive Statistics for the Sample

	N	% Percentage
Sex		
Female	256	56.9%
Male	187	41.6%
Other	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%

As the purpose of the study was to investigate the difference between *Cultural Intelligence* levels of college students who have and have not participated in Erasmus Student Mobility Program while controlling for the personality trait *openness to experience*, descriptive statistics for these variables are presented below (Table 4.3.).

Cultural intelligence is the dependent variable in this study measured with Cultural Intelligence Scale, which has 4 main factors (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). Moreover, openness to experience variable is a factor of the scale Big Five Inventory Scale.

Table 4.3.

Descriptive Statistics for Cultural Intelligence Factors and Openness to Experience

	N	Min.	Max.	Mean	*SD*
Metacognitive CQ	449	2.00	7.00	5.54	1.05
Cognitive CQ	450	1.00	7.00	4.38	1.06
Motivational CQ	450	1.00	7.00	5.64	1.15
Behavioral CQ	450	1.00	7.00	5.03	1.25
Openness to experience	450	1.00	5.00	4.00	.59

4.2. Inferential Statistics

Inferential statistics were conducted to better understand the data and draw conclusions. In this part, assumptions of MANCOVA and the results of MANCOVA are presented.

4.2.1. Assumptions of MANCOVA

In this part, assumptions of MANCOVA are presented, since to perform the analysis, all assumptions should be satisfied. These assumptions of MANCOVA are the level of both dependent and independent variables, sample size, independence of observation, normality, outliers, linearity, and homogeneity of regression, multicollinearity and singularity, and homogeneity of variance- covariance matrices.

4.2.1.1. Level of Dependent and Independent Variables

The independent variables must be categorical with minimum two groups, and the dependent variables must be interval or ratio (Mayers, 2013). In this study, the independent variable, participating or not participating in Erasmus Student Mobility Program is categorical and has two groups: yes or no. Moreover, the dependent variable, cultural intelligence, which has four factors, is interval. This shows that the assumption of level of dependent and independent variables is validated.

4.2.1.2. Sample Size

Sample size is the assumption stating that it needs to be more participants in each cell than the number of dependent variables. And this assumption is also validated.

4.2.1.3. Independence of Observation

Pallant (2005) states that each individual must respond to tests individually, and the responses of the participants must not affect each other. This assumption is validated, because the participants responded to the survey individually in classrooms under the observance of the researcher, and there were no pre-test post-test that could affect the participants' responses.

4.2.1.4. Normality

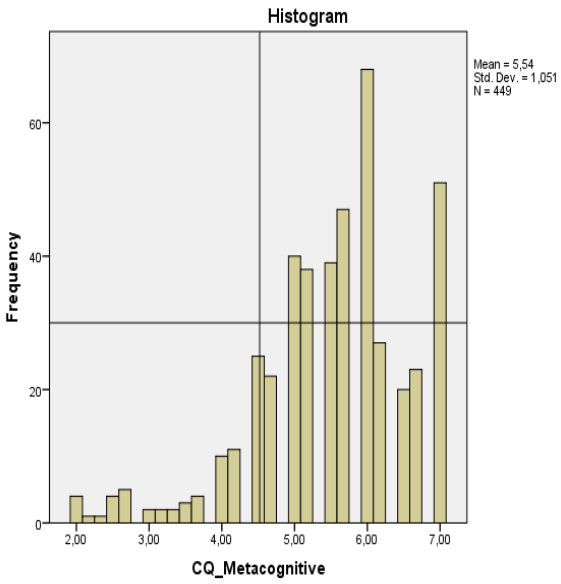
In order to continue with MANCOVA, both univariate and multivariate normality assumption must be validated. Univariate normality was checked with statistical and graphical methods. First, skewness and kurtosis values for metacognitive CQ, cognitive CQ, motivational CQ, behavioral CQ, and openness to experience are examined (Table 4. 4). Theoretically, these values should be zero; however, as long as they are in the range between -2 and +2, it can be counted as a normal distribution (Field, 2009). According to the results, skewness and kurtosis values were between the boundaries of -2 and +2, validating the univariate normality assumption. In addition to statistical methods, histograms and Q-Q plots were checked to provide further

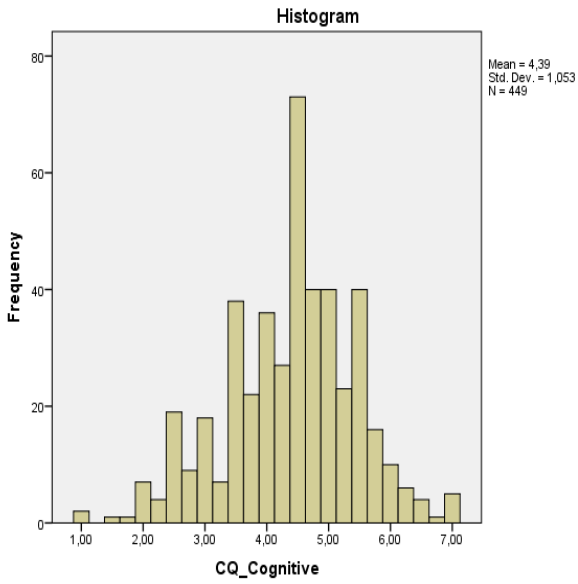
evidence (Figures 4.1. and 4.2.). Although some of the histograms and Q-Q plots were skewed indicating the non-normality of the data, as the sample size is large, it was decided to continue with the analysis.

Table 4.4.

Skewness and Kurtosis Values for the Variables

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Metacognitive CQ	-.908	.115	1.099	.230
Cognitive CQ	-.329	.115	1.121	.230
Motivational CQ	-1.198	.115	1.679	.230
Behavioral CQ	-.497	.115	.025	.230
Openness to experience	-.727	.115	1.210	.230





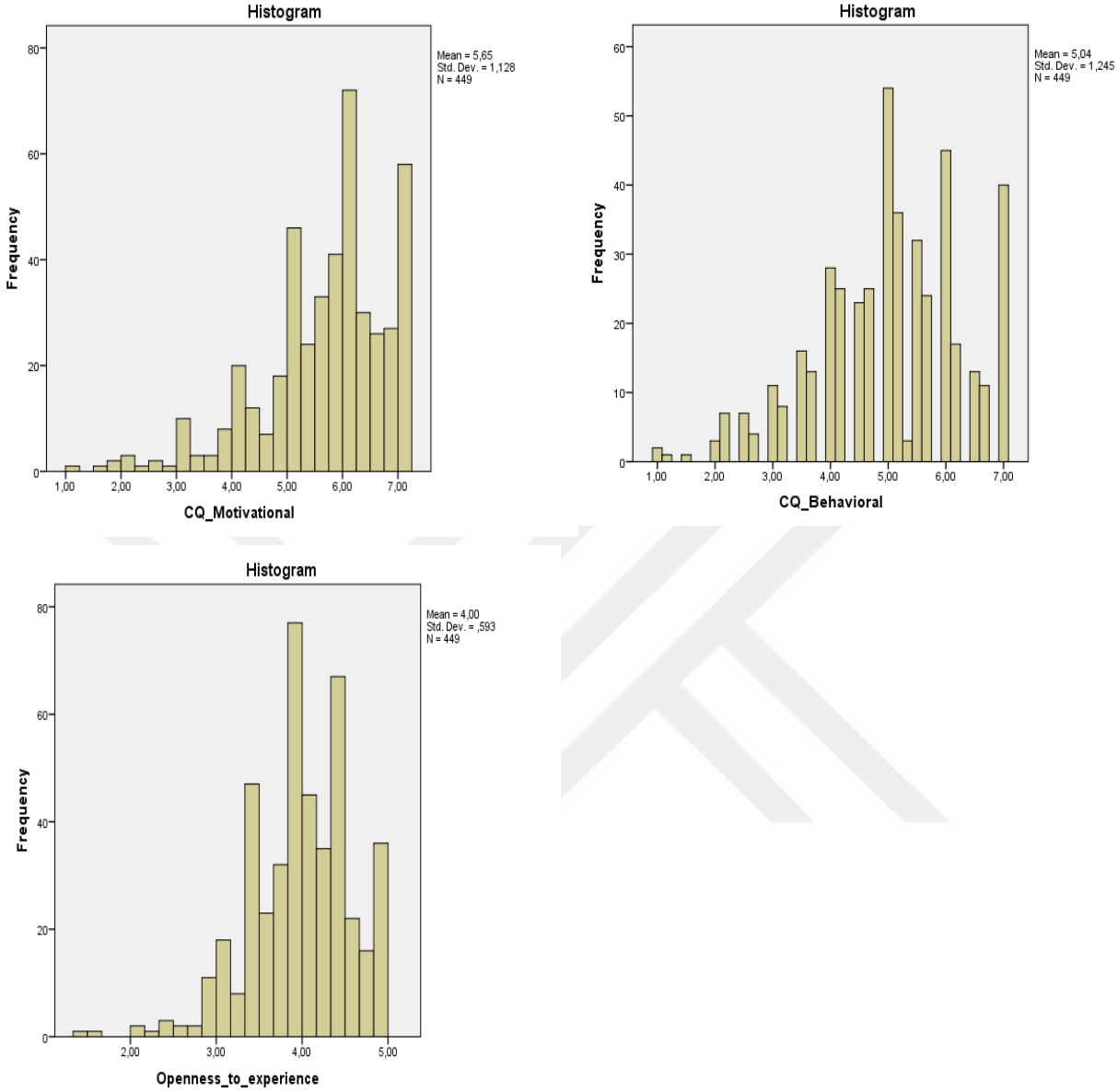


Figure 4.1. Histograms showing normality distribution of metacognitive CQ, cognitive CQ, motivational CQ, behavioral CQ, and openness to experience

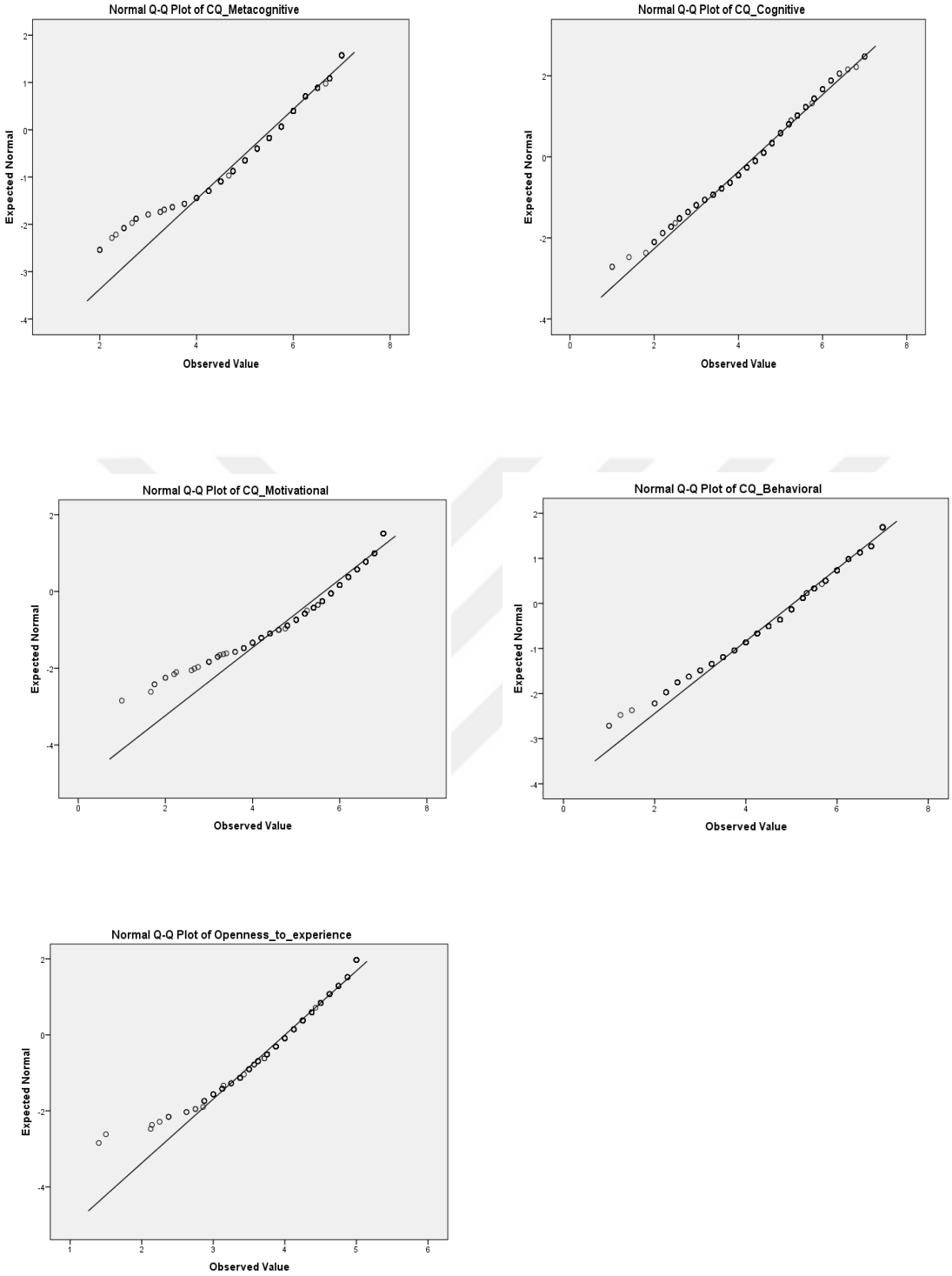


Figure 4.2. Q-Q Plots of metacognitive CQ, cognitive CQ, motivational CQ, behavioral CQ, and openness to experience

For the multivariate normality assumption, Mardia's test results were checked. The results of the test showed that the assumption was violated (*b2p*=867.58, p<.05);

however, as the Mardia's test can be effected by the sample size, this statistical result should not be significant. Multivariate normality is suggested to be met if there are more than 20 cases in each cell (Tabachnick & Fidell, 2007, p. 279). Since each cell includes more than 20 cases, multivariate normality assumption seems to be assured.

4.2.1.5. Outliers

To continue with the MANCOVA, univariate and multivariate outliers assumption must be satisfied. The univariate outliers were detected with the use of standardized scores (z scores). In order to do this, all continuous variables' data were transformed into z scores, and the scores higher than +3.29 and the ones lower than -3.29 were detected as potential outliers (Tabachnick & Fidell, 2007, p. 73), and removed from the dataset. In Table 4.5. below, minimum and maximum z scores of the data can be seen.

Table 4.5.

Minimum and Maximum z Scores

	Minimum	Maximum
Metacognitive CQ	-3.625	1.039
Cognitive CQ	-.3.103	2.121
Motivational CQ	-4.317	1.150
Behavioral CQ	-2.960	1.454
Openness to Experience	-3.972	1.485

For the multivariate outliers, Mahalanobis distance was calculated with the use of regression menu in SPSS 23. The results showed that the Mahalanobis distance maximum value was 26.547 (Table 4.6.). Moreover, the critical value to compare this value was found to be 18.467. The critical value was found by using the chi-square table with the number of dependent variables, which is four, as the degrees of freedom (df), and the alpha value that was used is .001. Therefore, The Mahalanobis distance maximum value (26.547) was greater than the critical chi-square value (df=4, 18.467). This indicated that there were multivariate outliers. In order to detect these multivariate outliers, MAH_1 column in data set, which was created by SPSS after conducting the regression analysis, was rearranged from largest to smallest value. These outliers were

participant ID=109 with a value of 26.547, ID=349 with a value of 24.466, ID=69 with a value of 23.352, ID=404 with a value of 22.92, ID=81 with a value of 22.653, and ID=235 with a value of 20.417. When these participants are excluded from the data, it did not affect the analysis negatively, and the results obtained were approximately the same. That is why, these participants were decided to remain in the analysis, verifying the multivariate outliers assumption.

Table 4.6.

Residual Statistics

	Minimum	Maximum	Mean	*SD*	N
Predicted Value	156.741	320.209	225.062	20.583	449
Std. Predicted Value	-3.319	4.623	.000	1.000	449
Std. Error of Predicted Value	6.396	31.936	12.830	4.490	449
Adjusted Predicted Value	146.753	315.484	225.099	20.670	449
Residual	-245.229	262.259	.000	128.219	449
Std. Residual	-1.904	2.036	.000	.996	449
Stud. Residual	-1.922	2.075	.000	1.001	449
Deleted Residual	-249.845	272.247	-.037	129.656	449
Mahal. Distance	.107	26.547	3.991	3.925	449
Cook's Distance	.000	.033	.002	.003	449
Centered Leverage Value	.000	.059	.009	.009	449

4.2.1.6. Linearity

The assumption of linearity was checked through SPSS's graphical methods using matrix of scatterplots between each pair of the variables for all groups (Figure 4.3.). Although the matrix of scatterplots indicated some non-linearity, it did not display serious concern for the violation of the assumption; therefore, it was decided to continue with the analysis.

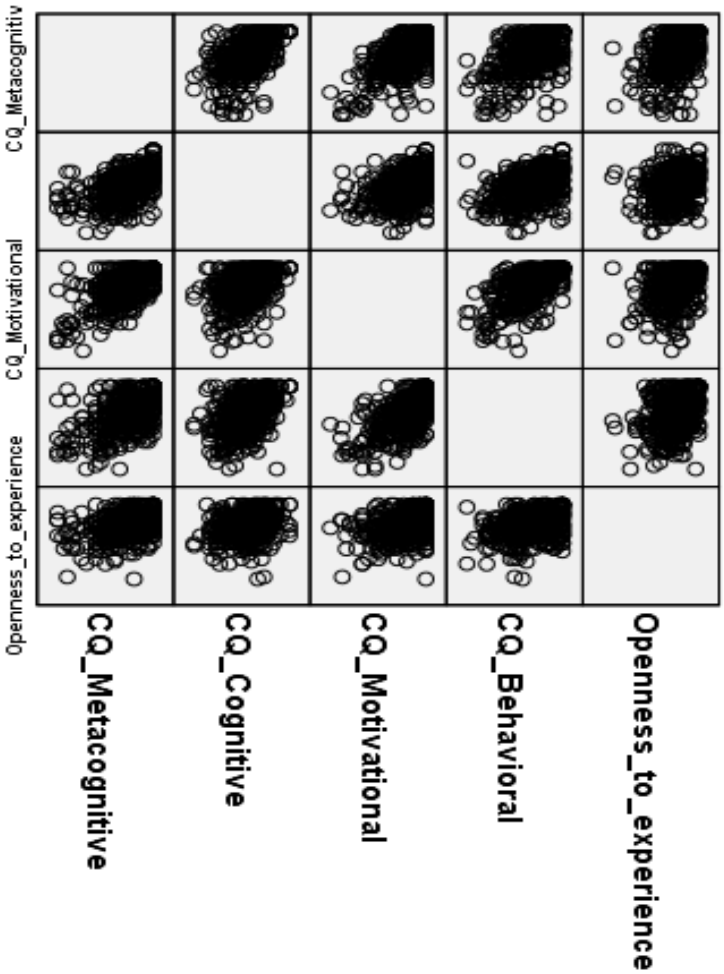


Figure 4.3. Matrix of scatterplots showing the linearity

4.2.1.7. Multicollinearity and Singularity

The assumption of multicollinearity and singularity were tested by using the linear regression menu in SPSS 23. To check the assumption, the correlation between variables and the Variance Influence Factor (VIF) values were examined. According to Tabachnick and Fidell (2007), the correlation between variables must be lower than 0.9. The correlation values for this study are represented in Table 4.7. below. The results showed that the correlation is not greater than 0.9, and the assumption was validated.

Table 4.7.

Pearson Correlations among Variables

	MC CQ	Cog. CQ	Mot. CQ	Beh. CQ	Openness
MC CQ	1				
Cog. CQ	.52*	1			
Mot. CQ	.63*	.42*	1		
Beh. CQ	.51*	.44*	.62*	1	
Openness	.36*	.26*	.32*	.30*	1

*. Correlation is significant at the .001 level (2-tailed).

Secondly, VIF values were examined; according to Montgomery (2001) and Tabachnick and Fidell (2007), VIF values must not exceed 5 or 10 and tolerance values should be greater than .20. Table 4.8. below represents the values for this study. The results showed that there is no evidence of multicollinearity, validating the assumption.

Table 4.8.

Analysis of Multicollinearity for the Dependent Variables

	Collinearity Statistics	
Model	Tolerance	VIF
Metacognitive CQ	.52	1.93
Cognitive CQ	.69	1.44
Motivational CQ	.49	2.06
Behavioral CQ	.57	1.74

4.2.1.8. Homogeneity of Regression

To test if there is an interaction between the covariate and the treatment groups, a customized MANCOVA should be run (Pallant, 2005). In this study, the interaction between Erasmus experience and openness to experience was checked through the customized MANCOVA, and the results showed that (Table 4.9.) there is no statistically significant interaction between those, implying that the assumption was verified.

Table 4.9.

A multivariate test of homogeneity of regression for the interaction between the independent variable and the covariate

Effect		Value	F	Hypothesis df	Error df	Sig.
Erasmus	Pillai's Trace	.01	1.07[b]	4.00	442.00	.369
experience *	Wilk's Lambda	.99	1.07[b]	4.00	442.00	.369
Openness to	Hotelling's Trace	.01	1.07[b]	4.00	442.00	.369
Experience	Roy's Largest Root	.01	1.07[b]	4.00	442.00	.369

[b]. Exact statistic.

4.2.1.8. Homogeneity of Variance

In order to check homogeneity of variances Box's Test of Equality of Covariances Matrices was used. Table 4.10. below represents the Box's Test results, showing that the covariance matrices are not approximately equal to each other for this study. As the p value was lower than .05, Pillai's Trace, instead of Wilk's Lambda was taken as reference.

Table 4.10.

Box's Test of Equality of Covariance Matrices

Box's M	46.642
F	4.61
df1	10
df2	281940.83
Sig.	.000

Another way to check homogeneity of variances is to use Levene's Test. If the results of the Levene's test indicates p values lower than .05, it implies that the variances of groups are not equal. Table 4.11. presents the values for this study, and it shows that the values for Metacognitive CQ and Behavioral CQ are greater than .05; however, for Cognitive CQ and Motivational CQ, the p values are lower than .05. This may lead to Type I error, violating the assumption. Therefore, alpha levels were reset to a more stringent value by using Bonferroni corrections. The conventional alpha level .05 was divided by the number of dependent variables, which is four, and the new alpha level

was found to be .05/4= .0125. In other words, it was decided that the results of the analysis were statistically significant if the alpha level was smaller than .0125.

Table 4.11.

Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Metacognitive CQ	2.71	1	447	.100
Cognitive CQ	11.70	1	447	.001
Motivational CQ	9.62	1	447	.002
Behavioral CQ	3.27	1	447	.071

4.3. Interpretations of MANCOVA Results

In order to examine the effect of participating in Erasmus Student Mobility Program on cultural intelligence of college students when openness to experience personality trait is taken as a covariate, Multivariate Analysis of Covariance (MANCOVA) was performed.

The null hypothesis stated that there is no statistically significant mean difference between cultural intelligence levels of students who have participated in Erasmus Student Mobility Program and students who have not participated in the program when openness to experience is controlled. SPSS 23 was used to test the hypothesis, and interpret the results with evidence.

MANCOVA was performed by four dependent variables (Metacognitive CQ, Cognitive CQ, Motivational CQ, and Behavioral CQ), one independent variable with two groups (Erasmus Student Mobility Program participation), and one covariate (openness to experience). The number of participants who studied abroad within the scope of Erasmus Student Mobility Program was 128, and the number of participants who have not studied abroad was 321.

The results of the multivariate tests are shown in Table 4.12. In this study, Pillai's Trace was used because the Box's Test of Equality of Covariance Matrices' values indicated a significant result ($p<.05$). This table indicated that participating in Erasmus

Student Mobility Program has a statistically significant effect on the combination of dependent variables, when we control for the covariate: openness to experience ($p<.05$).

Table 4.12.

The Relationship between Participating in Erasmus Program and Cultural Intelligence and the Mediating Effect of Personality Factor

Effect	Pillai's Trace	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	.266	40.136	4.000	443.000	.000	.266
Openness to experience	.149	19.320	4.000	443.000	.000	.149
Erasmus experience	.125	15.768	4.000	443.000	.000	.125

After reporting a significant result in multivariate test of results, the next table in MANCOVA output was Tests of Between-Subject Effects table. This table indicated the relationship between the independent variable (Erasmus participation) and each dependent variable (Metacognitive CQ, Cognitive CQ, Motivational CQ, and Behavioral CQ), controlling for the covariate (openness to experience). The results are presented in Table 4.13. below.

Table 4.13.

Tests of Between-Subjects Effects Table

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Openness to experience	Metacognitive CQ	55.526	1	55.526	60.784	.000	.120
	Cognitive CQ	26.596	1	26.596	27.720	.000	.059
	Motivational CQ	49.506	1	49.506	47.582	.000	.096
	Behavioral CQ	51.003	1	51.003	39.030	.000	.080
Erasmus experience	Metacognitive CQ	21.662	1	21.662	23.713	.000	.050
	Cognitive CQ	33.581	1	33.581	35.000	.000	.073
	Motivational CQ	43.376	1	43.376	41.690	.000	.085
	Behavioral CQ	46.534	1	46.534	35.611	.000	.074

The results indicated that, the main effect of participating in Erasmus Student Mobility Program on students' Metacognitive CQ (F(1)=23.713, p=.000, p<.0125 with the effect size .050), Cognitive CQ (F(1)=35.000, p=.000, p<.0125 with the effect size .073), Motivational CQ (F(1)=43.376, p=.000, p<.0125 with the effect size .085), and Behavioral CQ (F(1)=46.534, p=.000, p<.0125 with the effect size .074) were statistically significant.

Moreover, the results show that, openness to experience personality trait has a statistically significant effect on Metacognitive CQ (F(1)=60.784, p=.000, p<.0125 with the effect size .120), Cognitive CQ (F(1)=27.720, p=.000, p<.0125 with the effect size .059), Motivational CQ (F(1)=47.582, p=.000, p<.0125 with the effect size .096), and Behavioral CQ (F(1)=39.030, p=.000, p<.0125 with the effect size .080).

Table 4.14. below demonstrates the mean differences of cultural intelligence levels of students who have participated in Erasmus Student Mobility Program and students who have not, after adjusted for the covariate: openness to experience.

Table 4.14.

Mean Differences of Cultural Intelligence Sub-dimensions

Dependent Variable	Erasmus Experience	Mean	Standard Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Metacognitive CQ	Yes	5.89*	.085	5.724	6.058
	No	5.40*	.053	5.296	5.506
Cognitive CQ	Yes	4.82*	.087	4.651	4.993
	No	4.21*	.055	4.103	4.319
Motivational CQ	Yes	6.15*	.091	5.967	6.323
	No	5.45*	.057	5.339	5.563
Behavioral CQ	Yes	5.55*	.102	5.355	5.754
	No	4.84*	.064	4.710	4.961

*. Covariates appearing in the model are evaluated at the following values: Openness to experience=4.0012.

The overall results showed that participating in Erasmus Student Mobility Program has statistically significant effect on all sub-dimensions of Cultural Intelligence. The mean differences between students who have participated in Erasmus Program and who have not are M_1=5.89, M_2=5.40; M_1=4.82, M_2=4.21; M_1=6.15, M_2=5.45; and M_1=5.55, M_2=4.84 for Metacognitive CQ, Cognitive CQ, Motivational CQ, and Behavioral CQ, respectively.

The means of metacognitive cultural intelligence scores indicated that the participants who have studied abroad developed their metacognitive abilities more than the participants who have not studied abroad. Since metacognitive cultural intelligence is related to cultural awareness during intercultural interactions, it can be argued that the more individuals spend time engaging in intercultural communication, the more they develop their metacognitive abilities, such as making sense of their own culture, and being aware of differences and similarities between other cultures.

The means of cognitive cultural intelligence scores indicated that the participants who have studied abroad developed their cognitive abilities more than the participants who have not studied abroad. This result indicated that, living in a different culture and

engaging in intercultural interactions is one of the effective ways to learn about other cultures: language, norms, beliefs, etc.

When we look at the means of cultural intelligence scores, we see that motivational cultural intelligence has the greatest mean for students who have studied abroad. As students did the survey after they have returned from abroad, this may mean that Erasmus Student Mobility Program is successful in terms of increasing students' motivation to learn about other cultures and engaging in cross-cultural interactions.

Moreover, the means of behavioral cultural intelligence scores indicated that the participants who have studied abroad developed their behavioral abilities more than the participants who have not studied abroad. From this result, it can be argued that living in another culture for a certain period of time enables individuals to really understand another culture's behavioral norms, and enable individuals to adapt their verbal and nonverbal behavior.

Since the results indicated that participating in Erasmus Student Mobility Program significantly increased college students' cultural intelligence (metacognitive, cognitive, motivational, and behavioral), it can be deduced that the whole experience of living in a different culture and being present in multicultural contexts enable individuals to really think about the similarities and differences between cultures, to question what they used to think about other cultures; to learn other cultures' norms, symbols, and languages; to increase their cultural awareness and develop an understanding towards diversity; to increase their motivation to learn about other cultures while being more enthusiastic about engaging in multicultural interactions; and to adapt their verbal and non-verbal behavior as a result of understanding others and developing tolerance towards differences.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

In this chapter, the discussion of the results, implications, and recommendations for future research are presented.

5.1. Discussion

This section presents discussion of the findings of the study and the possible reasons behind it. It provides discussion on how participating or not participating in Erasmus Student Mobility Program affects college students' cultural intelligence and how personality trait openness to experience plays a role on the study abroad experience and cultural intelligence.

The first significant result of the present study is that students who participated in Erasmus Student Mobility Program had significantly higher scores for all sub-dimensions of cultural intelligence, compared to the students who have never studied abroad, when personality trait openness to experience is controlled. Considering the participants of the study, some arguments can be made: the participants of this study were college students studying at Middle East Technical University, which has a great number of international students living in the campus. This indicates that most of students are experiencing intercultural interactions to a certain degree in their daily lives: in campus, during classes or during daily events in the campus. Moreover, the medium of instruction of the university is English, meaning that all students studying in METU, regardless of studying abroad experiences have a certain level of linguistic competence in a foreign language.

As METU can be considered as an internationalized institution and most of students have engaged in cross-cultural interactions at least several times, it was expected that students who have not studied abroad would also develop cultural intelligence skills to a certain extent. Since students take courses in English, and a great number of

students are taking a second foreign language class, students' knowledge about foreign languages is really good. Moreover, they are engaging in face-to-face interactions with international students on a daily basis: they get the chance to learn about other cultures' norms, beliefs, and parts of their daily lives. It was expected that these engagements lead to increased levels of cognitive (knowledge of other cultures), metacognitive (thinking about similarities and differences between cultures), motivational (the desire to learn about other cultures), and behavioral cultural intelligence (adapting one's behavior). The results of the present study, indeed, revealed that students who have never studied abroad still have a certain level of cultural intelligence. However, the results showed that, the students who have participated in the Erasmus Student Mobility Program had significantly much higher levels of cultural intelligence.

Considering that, even in an institution that is considered as international in terms of their students and academic personnel, students who have studied abroad for one or two semester had develop their cultural intelligence significantly more, it can be argued that this result leads us to the effectiveness of Erasmus Student Mobility Program. The reason that study abroad students have developed their cultural intelligence more can be related to several reasons. First of all, students who participate in the mobility program usually goes to another country alone, meaning that he/she is required to interact with local people all the time on his/her own. However, when students are in their own country and city, even though they engage in cross-cultural interactions, it only takes a certain time of their daily life. Moreover, study abroad students experience cultural differences all the time for at least 3 months during the mobility. Since study abroad program lasts at least one semester, it should be differentiated from visiting another country for touristic purposes. As the duration of the stay increases, study abroad students get to adapt themselves in another culture.

A study conducted by Thomas & Inkson (2017) argued, 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 may help 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. However, after a certain period of time, as people get to know the other culture, they start to learn similarities and differences between cultures, cultural and behavioral norms; and the effect of culture shock steadily decreases. This may explain 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. Even though they faced difficulties at first, upon their return, their motivation to learn other cultures are still very high. This may also be related to the structure of the study abroad program. 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 that way.

The study conducted by Papatsiba (2015) stated that as Erasmus students increase their cultural awareness during study abroad experience, they are more likely to overcome difficulties easily in intercultural contexts. The present study also indicated that students who have participated in the program had significantly higher metacognitive cultural intelligence signaling that the time spent abroad have increased their cultural awareness. Moreover, upon their return, their behavioral cultural intelligence scores are also significantly higher than students who have not studied abroad. Although it is mentioned that students who have not studied abroad are having intercultural interactions in campus, too, these results indicate the positive effect of Erasmus program.

The results of the present study are 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. Because, it is clear that to develop cultural intelligence skills face-to-face interactions is necessary, the quality of these interactions are also important. Since the participants in present study, even the ones who have not participated in the Erasmus program, have the chance to interact with people from other cultures, it did not necessarily increased their cultural intelligence 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 terms of developing 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.

Another study conducted by Şahin, Gürbüz, and Köksal (2014) presented that a 6 month international assignment increased military personnel's cultural intelligence skills. Moreover, they argued that personality traits have a big role on determining cultural intelligence. Although this present study lacked comparing students' cultural intelligence levels before and after they have studied abroad, both studies' result implicate similar outcomes: an average of 6 months international experience has a significant effect on cultural intelligence. Moreover, present study's results also similarly indicated that personality traits play an important role on determining the effect of international experience. What is different between these studies that, in Şahin, Gürbüz, and Köksal's (2014) study, the participants were military personnel, whereas in the present study, the participants are college students. However, as the results are in line, it can be argued that regardless of the purpose of being present abroad, the experience alone significantly contributes to development of cultural intelligence.

The present study's results are also in line with Tarique and Takeuchi's (2008) study, which 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, it can be argued that, participating in Erasmus Student Mobility Program helped students to develop skills and abilities to communicate more effectively in multicultural contexts.

In Keleş's (2013) study, it is suggested that there are some barriers to intercultural communication such as anxiety, stereotypes, and prejudices. Since the present study was a quantitative research study, the students did not get to share their subjective experiences related to intercultural communication barriers. However, as students with study abroad experiences have higher levels of motivational and behavioral cultural intelligence compared to students with no study abroad experience, it can be argued that participating in Erasmus Student Mobility Program contributes overcoming these barriers. Indeed, Papatsiba's (2015) study found that participating in Erasmus Student Mobility Program enabled students overcoming before mentioned difficulties, and led to more effective intercultural communication opportunities eliminating stereotypes and prejudices.

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.

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.

Another significant finding of the present study is that openness to experience personality trait is a significant mediator for study abroad experience and cultural intelligence. Previous studies also indicated that individuals who are more open to experiences are more likely to carry out successful interactions with others (Caligiuri, 2000), and it is also an important indicator for life and job satisfaction (Lie, Suyasa, & Wijaya, 2016). Moreover, Martin, Katz-Buonincontro, and Livert (2015) stated that

individuals who are less open to experiences benefit the most from study abroad experiences. From these results, it can be argued that while higher education institutes are sending students to study abroad, their personality traits, especially openness to experience, must be considered. As living abroad experience is highly subjective, it cannot be expected that students who are low and high in terms of openness will feel the same about the living abroad experience.

5.2. Implications

The results that this study have found are parallel to previous research. The findings indicate that international immersion experience, specifically Erasmus Student Mobility Program here, develop all four factors of cultural intelligence (Kasapoğlu, Önder, & Balcı, 2010; Şahin, Gürbüz, & Köksal, 2014; Tarique & Takeuchi, 2008).

Moreover, some studies lacked integrating students' personality to their study, which may cause misconceptions. For example, motivation for participating in Erasmus Student Mobility Program may be directly affected by a student's personality (e.g. social anxiety, introversion, etc.). Because students who are motivated to study abroad are usually more open to new experiences, eliminating the effect of personality may lead to different conclusions. In terms of considering the effect of personality, as well, this study recognizes the importance of individual differences.

The results indicate that the positive effect of participating in Erasmus Student Mobility Program on college students' cultural intelligence is beyond doubt. As developing cultural intelligence leads to tolerance and understanding among different cultures, higher education institutions must create opportunities and financial sources to support such study abroad programs. As the flow of outgoing and incoming students increases, there will be more chances for young adults to develop their intercultural communication skills, to increase their language abilities, to increase their chances at finding a job in international arena, to becoming a global citizen, and more importantly to live in a more peaceful and tolerant society.

Another implication may be related directly to higher education institutions, where Erasmus Student Mobility Program is present. The results of the study show that personality has an effect on cultural intelligence, and possibly has an effect on the decision of whether to participate in Erasmus program, or not, as well. To recognize this effect, International Cooperation Offices (like in METU) can be established; and in those offices, students may be informed on what to expect from study abroad experience. According to country they will visit, information can be given to students about the culture of the country, how to approach people, the norms of the culture, etc. These may maximize the positive effects of the study abroad experience because it would decrease the possibility of homesickness and culture shock.

5.3. Recommendations for Future Research

According to the results of the current study, these recommendations can be made for future research:

- Pre-test post-test method can be used to directly observe the increase or decrease in cultural intelligence level before and after studying abroad.
- Further research can be performed in other higher education institutions to investigate the same research questions. As mentioned in limitations of the study, in this study, participants were studying in a college that has a high number of international students, and the medium of instruction is English.
- A mixed method study can be designed to investigate the research questions deeper. Interviews can be conducted with participants who have studied abroad, asking them to explain their feelings and experiences while being abroad.

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APPENDICES

A. Approval Letter from METU Human Subjects Ethics Committee

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

09 HAZİRAN 2016

Sayı: 28620816 /237

Konu: Etik Onay

Gönderilen: Yrd.Doç.Dr. Serap EMİL
Psikoloji Bölümü

Gönderen: Prof. Dr. Canan SÜMER
İnsan Araştırmaları Etik Kurulu Başkanı

İlgi: Etik Onayı

Sayın Yrd.Doç.Dr.Serap EMİL'in danışmanlığını yaptığı yüksek lisans öğrencisi Özge GÖKTEN'in " Üniversite öğrencilerinin kültürel zekaları ve kişilik özellikleri arasındaki ilişki ve Erasmus Öğrenim Hareketliliği Programı'na katılmanın bu değişkenler üzerine etkisi" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay **2016-EGT-109** protokol numarası ile **20.06.2016-13.02.2017** tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Canan SÜMER
İnsan Araştırmaları Etik Kurulu Başkanı

B. Consent Form for Data Collection

Bu çalışma, ODTÜ Eğitim Yönetimi ve Planlaması Bölümü yüksek lisans öğrencisi Özge Gökten tarafından, Yrd. Doç. Dr. Serap Emil'in danışmanlığında yürütülen bir yüksek lisans tez çalışmasıdır.

Araştırmanın amacı, Erasmus Öğrenim Hareketliliği değişim programının, öğrencilerin kişilik özellikleri göz önünde bulundurularak, öğrencilerin kültürel zekâlarını nasıl etkilediğini incelemektir. Çalışmaya katılım tamamen gönüllülük temelinde olmalıdır. Ankette, sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir; elde edilecek bilgiler bilimsel amaçlarla kullanılacaktır.

Kültürel zekâ, kişinin, farklı kültürlerden insanlarla etkileşime geçtiğinde, söz konusu ortama adapte olabilme yeteneğidir. Adapte olmak ile kastedilen, kültürlerarası farklılıkların bilincinde olma, bu ortama uyum sağlamak için motive olma ve sözlü ve/veya sözsüz iletişimde ortamın gerektirdiği esnekliği göstermedir. Aşağıda kültürel zekâ ve kişilik özelliklerine dair toplam 26 ifade bulunmaktadır. Lütfen, her bir maddeyi okuyarak size en uygun seçeneği işaretleyiniz. Anket, genel olarak kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakmakta serbestsiniz.

Anket sonunda, bu çalışmayla ilgili sorularınız cevaplanacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için Özge Gökten (Tel: 0312 210 71 13; E-posta: ogokten@metu.edu.tr) ile iletişim kurabilirsiniz.

C. Demographic Data Form

Kullanıcı Adınız: (Gerçek ismini vermek istemeyen katılımcılar için)

_____

Cinsiyetiniz: _____

Yaşınız: _____

Bölümünüz: _____

Sınıfınız:

☐ 1. Sınıf ☐ 2. Sınıf ☐ 3. Sınıf ☐ 4. Sınıf ☐ Lisansüstü

Not ortalamanız (CGPA):

☐ 0.00 – 1.99 ☐ 2.00 – 2.99 ☐ 3.00 – 3.49 ☐ 3.50 – 4.00

Erasmus Öğrenim Hareketliliği dışında bir kez ya da daha fazla yurt dışında bulundunuz mu?:

☐ Evet ☐ Hayır

Erasmus Öğrenim Hareketliliği Programına Katıldınız mı?:

☐ Evet ☐ Hayır

Erasmus Öğrenim Hareketliliği Programına katıldıysanız;

Bu bölümü Erasmus Öğrenim Hareketliliği Programına katıldıysanız doldurunuz.

Öğrenci değişim programına katıldığınız akademik yıl: _____

D. Türkçe Özet (Turkish Summary)

ERASMUS ÖĞRENİM HAREKETLİLİĞİ PROGRAMINA KATILIM VE KÜLTÜREL ZEKÂ

Giriş

Araştırmanın Amacı ve Önemi

Bu araştırma, kültürel zekânın Erasmus Öğrenim Hareketliliği Programı'na katılan ve katılmayan üniversite öğrencileri arasında farklılık gösterip göstermediğini, "deneyime açıklık" kişilik özelliğini kontrol altında tutarak incelemek amacıyla yapılmıştır. Öğrencilerin kültürel zekâlarını ve deneyime açıklıklarını ölçmek amacıyla, Kültürel Zekâ Ölçeği (Cultural Intelligence Center, 2005) ve Beş Faktör Kişilik Ölçeği – Deneyime Açıklık alt boyutu (John, Donahue, & Kentle, 1991; John, Naumann, & Soto, 2008), araştırma kapsamında Türkçeye uyarlanmıştır.

Toplumlardaki her birey farklı bir kültürün parçasıdır ve aynı zamanda her birey farklı inanışlara, fikirlere ve davranışlara sahiptir. Bir kişi, hayatı boyunca ailesinden, yetiştiği çevreden, içinde bulunduğu olduğu kültürel etmenlerden, okul ve iş hayatındaki deneyimlerinden etkilenerek kendine özgü düşünce, inanış ve davranış biçimleri geliştirir. "Kültür", dar anlamıyla bakıldığında, sanat, eğitim ve edebiyatın bir sonucu olarak insanların medenileşmesi anlamına gelmektedir (Online Etymology Dictionary, n.d.); ancak, geniş anlamı ile ele alındığında kültür, bir grup insan tarafından paylaşılan her şeyi kapsamaktadır (inançlar, normlar, kıyafetler, yaşam tarzı, vb.) (Thio, 2008).

Bu bilgilerin ışığında, bu çalışmada, "kültür" geniş anlamıyla kullanılarak cinsiyet, din, dil, ırk, etnik köken, cinsel yönelim ve eğitimin yanı sıra, toplumlardaki konuşma şekilleri, davranış şekilleri, yazılı olmayan kurallar, günlük yaşam gibi normları da kapsamaktadır. Bu sebeple, "kültürlerarası iletişim" de sadece farklı ülke vatandaşları arasındaki iletişime indirgenmekten ziyade, bireyler arasındaki farklılıklar da göz

önüne alınarak; jenerasyon, yaş, cinsiyet, cinsel yönelim, din, dil, ırk, etnik köken gibi farklılıkları da dahil ederek ele alınmıştır (Hofstede & Hofstede, 2005).

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 (Lopes-Murphy, 2014). 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).

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 halindedir (Altbach & Knight, 2007). 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 (Altbach & Knight, 2007). Bu girişimlerden Avrupa kapsamında oldukça etkili olan biri de 1987 yılından başlatılan Erasmus Öğrenim Hareketliliği Programıdır (Arkalı Olcay & Nasır, 2016). Sadece 2013 - 2017 yılları arasında, 11.341 öğrenci Türkiye'den başka bir Avrupa ülkesine öğrenim görmeye gitmiş ve 13.649 uluslararası öğrenci Türkiye'ye öğrenim görmeye gelmiştir (YÖK, n.d.).

Bu bağlamda yükseköğrenimde oldukça yoğun bir öğrenci değişimi sirkülasyonu bulunmakta ve genç yetişkinler kültürlerarası etkileşimde bulunmaktadır; bu sebeple de üniversite öğrencilerinin kültürel zekâlarının geliştirilmesi oldukça önemli bir konudur. Erasmus Öğrenim Hareketliliği Programı ile yurt dışında eğitim 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 ölçen çok fazla ölçek olduğu ve yüzlerce kişilik özelliği listelenebileceği için, kişilik özellikleri ile ilgili çalışmak oldukça karmaşık olabilmektedir; ancak 1990lardan beri kullanılan Beş Faktör Kişilik Ölçeği, beş adet ana boyut listelemektedir ve diğer araştırmacılar tarafından da kullanılmaktadır (Hofstede & Hofstede, 2005). 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 zekanın tüm alt boyutlarıyla (üst-biliş, biliş, motivasyon ve davranış) ilişkili olduğunu gösterdiğinden, bu çalışmada, Erasmus Öğrenim Hareketliliği Programına katılan ve katılmayan üniversite öğrencilerinin kültürel zekaları, deneyime açıklık kişilik özelliği kontrol edilerek incelenmiştir.

Günümüzde akademik yaşamda, iş hayatında ve hatta günlük hayatta çokkültürlü etkileşimlerde bulunmak kaçınılmazdır. Bu anlamda üniversite öğrencilerinin kültürel zekâlarını geliştirmeleri oldukça önemlidir. Yapılan çalışmalar, kültürel zekası yüksek bireylerin farklılıkları daha kolay tolere edebildiğini, daha fazla empati yapabildiklerini ve daha az etnomerkezci olduklarını göstermiştir (Van Dyne & Ang, 2008; Van Dyne, Ang, & Livermore, 2009).

Bunlara ek olarak, üniversite öğrencilerinin kültürel zekâlarına ve öğrenci değişim programlarına dair geçmişte yapılan çalışmalar oldukça kısıtlı olduğundan, mevcut çalışma, üniversite öğrencileri için yurt dışında eğitim görmenin ya da görmemenin

kültürel zekâlarında yarattığı değişimi ve kişilik özelliklerinin bu durumu etkileyip etkilemediğini göstermesi açısından oldukça önemlidir.

Aynı zamanda, bu çalışma kültürel zekâsını geliştirmek isteyen ve Erasmus Öğrenim Hareketliliği Programına katılmak isteyen öğrenciler açısından da önemlidir. Bu çalışmanın sonuçlarından faydalanarak ve yeni çalışmalar da yürütülerek, yurt dışında eğitim görecek öğrenciler için yükseköğretim kurumlarında oryantasyon programları düzenlenebilir; öğrenim görülecek ülkenin kültürel özellikleri, normları, yaşam tarzları öğrencilere önceden tanıtılabilir; öğrencilerin kişilik özellikleri ve kültürel zekaları önceden ölçülerek risk grubundaki öğrencilere gerekli destek sağlanabilir (kültür şoku, etnomerkezcilik, kültürel tolerans vb. kavramlar öğrencilere anlatılabilir).

Araştırma Sorusu

Erasmus Öğrenim Hareketliliği Programına katılan ve katılmayan üniversite öğrencilerinin, "deneyime açıklık" kişilik özelliği kontrol altında tutulduğunda, kültürel zekâları farklılık göstermekte midir?

Literatür Taraması

Kültürel zekâ, kültürel farklılıkların rol oynadığı durumlarda bireyler arasındaki etkileşimi verimli bir şekilde sürdürme yetisidir (Earley & Ang, 2008) ve dört alt boyutu bulunmaktadır. Bunlardan "üst-biliş" kültürel zekâ, kültürel farklılıklar ve benzerlikler hakkında düşünme ve bilinçli kültürel farkındalık ile ilgilidir (Erez, Lisak, Harush, Glikson, Nouri, & Shokef, 2013). Bireylerin, yaşadıkları kültürlerarası etkileşimlere dair deneyimleri üzerine düşünmeleri, farklı kültürlere dair sahip oldukları önyargı ya da varsayımların farkında olmaları üst-biliş ile ilgilidir. "Biliş" alt boyutu, genel olarak kültürler hakkındaki bilgileri temsil etmektedir; normlar, değerler, inanışlar, diller, vb. (Brislin, Worthley, & Macnab, 2006). Biliş kültürel zekâsı yüksek olan bireyler, farklı kültürlerin sosyal, kültürel, ekonomik yapılarına ve yasal sistemlerine dair daha çok bilgiye sahiptirler. "Motivasyon" alt boyutu, farklı

kültürleri deneyimlemeyi ve farklı kültürlerden bireylerle etkileşime girme isteğini temsil etmektedir. Bireylerin özgüveni bu motivasyon üzerinde önemli bir etkiye sahiptir. Özgüveni daha yüksek olan bireyler, çokkültürlü ortamlarda yeni deneyimlere daha açık ve kültürlerarası iletişime girmeye daha hevesli olurlar. Son olarak "davranış" alt boyutu, bireylerin sözlü ve sözlü olmayan davranışlarını kültürlerarası iletişimin gerekliliklerine göre adapte edebilmesini açıklamaktadır (Dyne, Ang, & Livermore, 2009). Davranış kültürel zekâsı yüksek olan bireyler, çokkültürlü ortamlarda, etkileşimin gerekliliklerine göre jest ve mimiklerini daha iyi kullanırlar ve kendilerini sözlü olarak da daha doğru ve etkili bir şekilde ifade ederler.

Yapılan çalışmalar, kültürel zekânın yaşam doyum seviyesi (Le, Jiang, & Nielsen, 2016); farklı kültürlere adapte olabilme yeteneği (Templer, Tay, & Chandrasekar, 2006); görev performansı (Presbitero, 2017) ve iş hayatında yaratıcılık (Bogilovic & Skerlavaj, 2016) ile doğru orantılı olduğunu göstermiştir. Aynı zamanda, üniversite öğrencilerinin Kültürel Zekâlarını geliştirmesi için en büyük fırsatlardan birinin farklı kültürlerden bireylerle yüz yüze iletişimde bulunmak olduğu önerilmiştir (Zapata, 2011). Türkiye'de öğrenim görmekte olan üniversite öğrencileri için, farklı kültürlerden bireylerle etkileşime girmenin en etkili yollarından biri de Erasmus Öğrenim Hareketliliği Programı kapsamında belirli bir süre için yurt dışında eğitimine devam etmektir.

Çalışmanın bir diğer değişkeni olan Erasmus Öğrenim Hareketliliği Programı, 1988 yılından beri Avrupa'da ve 2003 yılından beri Türkiye'de 33 Avrupa ülkesinin katılımıyla aktif olarak devam etmektedir. Bu program kapsamında üniversite öğrencileri Avrupa Birliği üye ya da aday üye ülkelerde bir ya da iki akademik dönem boyunca eğitim görmektedir (Ulusal Ajans, 2012; Örer, 2014). Erasmus Öğrenim Hareketliliği Programı'ndan lisans ya da lisansüstü öğrencileri 3 aydan 12 aya kadar yararlanabilmektedir ve gerekli koşulları sağlayan öğrenciler hibe kazanarak yurt dışında eğitim alabilmektedirler. 2012 yılının sonunda, Türkiye'deki üniversitelerin %83'ü Erasmus Program'ına katılabilmek için gerekli şartları yerine getirmiştir (Ulusal Ajans, 2012).

Yapılan çalışmalar, üniversite öğrencilerinin, “yeni deneyimler kazanmak”, “kişisel gelişimine katkı sağlaması”, “diğer kültürleri deneyimlemek” ve “yeni insanlarla tanışmak” gibi amaçlarla Erasmus Öğrenim Hareketliliği Programına katılmak istediklerini göstermiştir (Lesjak, Juvan, Ineson, Yap, & Podovsovnik Axelsson, 2015). Krzaklewska (2008) tarafından farklı ülkelerden gelen farklı cinsiyet ve yaştaki öğrencilerle yapılan nicel bir çalışma, üniversite öğrencilerinin öğrenci değişim programlarına katılmalarının ardındaki motivasyonlarını dört ana başlıkta toplamıştır: akademik (farklı bir eğitim sistemine dâhil olmak, iş imkânlarını artırmak), dilsel (yabancı dil hâkimiyetini artırmak), kültürel (farklı bir ülkede yaşama deneyimi edinmek ve yeni kültürler tanımak), ve kişisel (yeni deneyimler kazanmak ve yeni insanlarla tanışmak).

Aynı zamanda, programdan faydalanarak yurt dışında eğitim gören öğrencilerin uluslararası şirketlerde iş bulma olasılıklarının arttığı, daha özgüvenli oldukları ve değişime daha kolay uyum sağladıkları (King, Findlay, & Ahrens, 2010) görülmüştür. Tekin ve Hiç Gencer (2013) tarafından yapılan nicel bir araştırma, Türkiye’den Erasmus Öğrenim Hareketliliği Programı’na katılarak yurt dışında eğitim gören öğrencilerin elde ettikleri pozitif sonuçları vurgulamıştır. Araştırmanın bulgularında, öğrencilerin yurt dışı deneyimlerinden sonra farklı kültürlere karşı önyargılarının azaldığı ve özgüvenlerinin arttığı ortaya çıkmıştır. Bunlara ek olarak, katılımcılar artık “sadece Türkiye vatandaşı gibi değil, daha çok bir dünya vatandaşı gibi” hissettiklerini vurgulamışlardır.

Yapılan başka bir çalışma, işverenler tarafından aranan özellikler ve öğrencilerin Erasmus Öğrenim Hareketliliği sonrası kazandıkları özellikleri karşılaştırmış ve birçok paralelliği gözler önüne sermiştir. Bu özelliklerden bazıları; özgüven, grup çalışması, önyargılı olmamak, yabancı dil yetkinliği, vizyon, çokkültürlü bakış açısı, etkili karar verme yetisi, uyumluluk, esneklik, problem çözme yetisi ve kültürel empatidir (EAIE, 2012).

Çalışmada dikkate alınan bir diğer faktör de kişilik özellikleridir. Hofstede ve Hofstede’ye göre (2005), “insan doğası” evrensel ve doğuştandır, yeryüzündeki tüm

insanların paylaştığı özelliklerdir (yemek yemek, uyumak, barınma ihtiyacı, vb.). İnsan doğasından sonra gelen "kültür" ise sonradan öğrenilir ve tüm insanlar için değil, ancak belli gruplar için ortaktır. Piramidin en tepesinde ise "kişilik" bulunmaktadır; kişilik her bir bireye özgüdür ve kültür ve insan doğasından farklı olarak hem kalıtsaldır hem de zaman içinde sosyal çevre, aile, iş hayatı, kişisel deneyimler gibi faktörlerle edinilir. Bu bilgiler doğrultusunda, bireylerin yurt dışı deneyimlerini incelerken kişiliğin etkisi göz önünde bulundurulmalıdır, çünkü her birey farklı kişilik özelliklerine sahip olduğundan, yurt dışı eğitimi deneyiminin yorumlamasını da kişilik özellikleri doğrultusunda yapacaklardır.

Yapılan çalışmalar, Beş Faktör Kişilik Ölçeği tarafından listelenen kişilik özelliklerinden (deneyime açıklık, dışa dönüklük, uyumluluk, sorumluluk ve duygusal denge) yalnızca deneyime açıklığın yurt dışı deneyimi ile doğrudan ilgili olduğunu göstermiştir (Martin, Katz-Buonincontro, & Livert, 2015). Bu sebeple bu çalışmada üniversite öğrencilerinin sadece "deneyime açıklık" kişilik özelliği kontrol altında tutulmuştur. "Deneyime açıklık", geniş ilgi alanlarına sahip olmak, merak etmek, yaratıcı olmak ve bilinmeyene karşı toleranslı olabilmek ile ilgilidir (Costa & McCrae, 1992).

Yöntem

Desen

Bu çalışmada, nedensel karşılaştırma araştırması uygulanmıştır. Çalışmanın verileri, Ankara'da Orta Doğu Teknik Üniversitesi'nde öğrenim görmekte olan öğrencilerden toplanmıştır.

Örneklem

Bu çalışmada popülasyon, Türkiye'deki üniversite öğrencileri olarak belirlenmiştir. Ancak elverişlilik ve zaman faktörlerinden dolayı çalışma Ankara'da Orta Doğu Teknik Üniversitesi'nde gerçekleştirilmiştir. Erasmus Öğrenim Hareketliliği Programı

kapsamında son üç yıl içinde bir ya da iki dönem boyunca bir Avrupa ülkesinde eğitim gören ve eğitim amaçlı hiç yurt dışında bulunmamış öğrenciler çalışmaya dâhil edilmiştir. Neticede, son üç yıl içinde Erasmus Öğrenim Hareketliliği Programı'na katılan 599 öğrenciden 148 öğrenci pilot çalışmasında, 128 öğrenci de asıl çalışmada araştırmaya dâhil olmuş, bu bağlamda Erasmus'a katılan öğrenci popülasyonunun %46'sına çalışma dâhilinde ulaşılmıştır. Bunlara ek olarak, Erasmus Programı'na katılmayan 149 öğrenciden pilot çalışmasında ve 322 öğrenciden de asıl çalışmada veri toplanmıştır. Asıl araştırmada toplamda 450 öğrenci bulunmaktadır.

Veri Toplama Araçları

Araştırmada, veri toplama amacıyla, öğrencilere üç bölümden oluşan bir anket uygulanmıştır. İlk bölümde öğrencilere demografik bilgiler (yaş, cinsiyet, sınıf, not ortalaması, bölüm ve Erasmus'a katılıp katılmadıkları) sorulmuştur. İkinci bölümde ise dört alt boyutlu 20 soruluk Kültürel Zekâ Ölçeği uygulanmıştır. Bu ölçeğin Türkçeye uyarlanmasında çeşitli yöntemler izlenmiştir. İlk olarak ölçek 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 ölçekteki iki maddenin (Biliş 2. Madde ve Davranış 2. Madde) sorun yarattığı görülmüş ve ölçekten çıkarılmasına karar verilmiştir. Daha sonra her bir alt boyut için güvenirlik katsayıları hesaplanmış ve sırasıyla Üst-biliş, Biliş, Motivasyon ve Davranış için .77, .83, .84 ve .79 olarak bulunmuştur.

Anketin üçüncü bölümünde Beş Faktör Kişilik Ölçeği'nin 10 soruluk "deneyime açıklık" alt boyutu uygulanmıştır. Bu ölçeğin de Türkçeye uyarlanmasında aynı şekilde öncelikle ölçek araştırmacı tarafından Türkçeye, daha sonra tekrar İngilizceye çevrilmiş ve uzman görüşleri alınmıştır. Aynı şekilde, 297 öğrencinin katılımıyla SPSS 23 kullanılarak Açımlayıcı Faktör Analizi (AFA) gerçekleştirilmiştir. AFA sonucunda ölçekteki iki maddenin (10. ve 35. maddeler) sorun yarattığı görülmüş ve ölçekten çıkarılmasına karar verilmiştir. Son olarak bu boyut için güvenirlik katsayısı hesaplanmış ve .78 olarak bulunmuştur.

Veri Toplama Süreci

Veri toplama sürecinin başında gerekli izinler ODTÜ İnsan Araştırmaları Etik Kurulu'ndan alınmıştır. Pilot çalışması için 2016-2017 Güz döneminde ODTÜ Uluslararası İşbirliği Ofisi'nin de yardımıyla toplamda 300 öğrenciye ulaşılmıştır. Anketler ODTÜ'de, öğretim görevlilerinden izin alındıktan sonra, öğrencilerin gönüllülük esasına bağlı olarak dersliklerde uygulanmıştır. Ana çalışma için veri toplanması ise, pilot çalışmasının ardından 2016-2017 Bahar döneminde gerçekleştirilmiştir. Ana çalışma için toplamda 450 öğrenciden veri toplanmıştır. Bu öğrencilerin 256sı kadın, 187si erkek öğrencilerdir ve 5 öğrenci kendisini bu iki kategorinin dışında olarak tanımlamıştır. Öğrencilerin 128i son üç yıl içerisinde Erasmus Programı'na katılmış ve 322si hiçbir zaman eğitim amacıyla yurt dışında bulunmamıştır.

Ölçeklerin uygulanması dersliklerde yaklaşık olarak 15-20 dakika sürmüştür. Öğrenciler, çalışma ile ilgili olarak ve cevaplarının gizli tutulacağı konusunda uygulama öncesinde bilgilendirilmiş, çalışmaya gönüllü olarak katılmışlardır. Veri toplama aşamasında araştırmacı, dersliklerlerde bizzat bulunmuştur.

Veri Analizi

Veri analizi IBM SPSS 23 programı kullanılarak nedensel karşılaştırma yöntemi ile gerçekleştirilmiştir. Kültürel Zekâ Ölçeği ile Beş Faktör Kişilik Ölçeği Deneyime Açıklık alt boyunun faktörel yapısını test etmek amacıyla yine IBM SPSS 23 programının açımlayıcı faktör analizi özelliği kullanılmıştır. Betimsel analiz yöntemleri kullanılarak cinsiyet, yaş, bölüm, not ortalamasına bakılarak örneklemin nasıl değiştiği incelenmiştir. Buna ek olarak, Erasmus Öğrenim Hareketliliği Programı'na katılmanın, deneyime açıklık kişilik özelliği kontrol edildiğinde, üniversite öğrencilerinin kültürel zekâları üzerindeki etkisini gözlemlemek amacıyla Çok Değişkenli Kovaryans Analizi yapılmıştır.

Araştırmanın Sınırlılıkları

İlk olarak, bu çalışma sadece nicel veriyi dâhil ettiği için, kültürel zekâ ile ilgili öğrencilerin öznel deneyimlerini açıklamamaktadır. Öğrencilerin motivasyonları, deneyimleri ve duyguları gibi değişkenleri daha iyi anlayabilmek adına çalışmaya nitel verileri dâhil etmenin yararlı olabileceği düşünülmektedir. Aynı zamanda, çalışmanın Orta Doğu Teknik Üniversitesi'nde gerçekleştirilmiş olması, ODTÜ'de eğitim dilinin İngilizce olması, tüm öğrencilerin İngilizceye yetkin olması ve kampüste birçok uluslararası öğrencinin bulunması sebebiyle, çalışmanın çevresel geçerliliği açısından bir sınırlılık yaratmaktadır. Son olarak, çalışmada öğrencilerin kültürel zekâlarının Erasmus'a katılmadan önce ve katıldıktan sonra olarak iki aşamada incelenmemesi sebep sonuç ilişkisi kurulabilmesini sınırlandırmıştır. Ancak kısıtlı zaman sebebiyle çalışma söz konusu şekilde geliştirilememiştir.

Bulgular

Uygulama sonuçları aşağıda belirtilen bulguları ortaya çıkarmıştır.

- Açımlayıcı faktör analizinin (AFA) sonuçlarına göre, Kültürel Zekâ Ölçeği'nin geçerliği ve güvenirliği test edilmiştir. Ölçekteki iki maddenin çıkarılmasına karar verilmiştir. Söz konusu maddeler çıkarıldıktan sonra AFA, ölçeğin orijinaline uygun olarak dört alt boyut önermiştir ve maddeler toplam varyansın %61.87sini açıklamaktadır. Maddelerin faktör yükleri incelendiğinde, .34 ile .87 arasında değiştiği gözlemlenmektedir. KMO değeri .86 olarak bulunmuştur. Ayrıca Cronbach alfa katsayıları sırasıyla Üst-biliş, Biliş, Motivasyon ve Davranış için .77, .83, .84 ve .79 olarak bulunmuştur.
- Açımlayıcı faktör analizinin (AFA) sonuçlarına göre, Beş Faktör Kişilik Ölçeği – Deneyime Açıklık alt boyutunun geçerliği ve güvenirliği test edilmiştir. Ölçekteki iki maddenin çıkarılmasına karar verilmiştir. Söz konusu maddeler çıkarıldıktan sonra kalan maddelerin toplam varyansın %40.38ini açıkladığı görülmüştür. Maddelerin faktör yükleri ise .45 ile .71 arasında değişmektedir. KMO değeri .77 olarak hesaplanmıştır. Ayrıca Cronbach alfa katsayısı .78 olarak bulunmuştur.

- Çok Değişkenli Kovaryans Analizini (MANCOVA) gerçekleştirebilmek için varsayımlar kontrol edilmiştir. MANCOVA'nın sonuçları, Erasmus Öğrenim Hareketliliği Programı'na katılmanın, deneyime açıklık kişilik özelliği kontrol edildiğinde, kültürel zekânın tüm alt boyutlarının birleşimi üzerinde istatistiksel olarak önemli bir fark yarattığını göstermiştir.
- Çok Değişkenli Kovaryans Analizinin sonuçları, deneyime açıklık kişilik özelliğinin, kültürel zekanın üst-biliş, biliş, motivasyon ve davranış alt boyutlarının tümünde istatistiksel olarak önemli bir fark yarattığını göstermiştir ($p<.0125$).
- Çok Değişkenli Kovaryans Analizinin sonuçları, deneyime açıklık kişilik özelliği kontrol altında tutulduğunda, Erasmus'a katılmanın ya da katılmamanın, kültürel zekânın tüm alt boyutları üzerinde istatistiksel olarak önemli bir fark yarattığını göstermiştir. Erasmus Öğrenim Hareketliliği Programı'na katılan ve katılmayan öğrenciler için üst-biliş, biliş, motivasyon ve davranış alt boyutlarının ortalama değerleri şu şekildedir:
    - Sırasıyla Erasmus Öğrenim Hareketliliği Programına katılan ve katılmayan öğrenciler için: üst-biliş kültürel zeka değerleri: 5.89 ve 5.40, biliş kültürel zeka değerleri: 4.82 ve 4.21, motivasyon kültürel zeka değerleri: 6.15 ve 5.45 ve davranış kültürel zeka değerleri: 5.55 ve 4.84.
- Sonuçlar, Erasmus Öğrenim Hareketliliği Programı'na katılan öğrencilerin, katılmayan öğrencilere göre üst-biliş kültürel zekâlarının daha yüksek olduğunu göstermiştir. Üst-biliş, kültürlerarası etkileşime dair farkındalığı temsil ettiğinden, yurt dışı eğitimi tecrübesi olan öğrencilerin bu anlamda kültürler arasındaki farklılıklara ve benzerliklere karşı daha bilinçli oldukları tartışılabilir.
- Sonuçlar, Erasmus Öğrenim Hareketliliği Programı'na katılan öğrencilerin, katılmayan öğrencilere göre biliş kültürel zekâlarının daha yüksek olduğunu göstermiştir. Bu bağlamda, Erasmus Programı kapsamında farklı kültürleri tecrübe eden öğrencilerin, o kültürlerin yaşam tarzlarına, dillerine, yasal ve ekonomik sistemlerine ve normlarına daha hâkim oldukları sonucuna varılabilir.

- Sonuçlar, Erasmus Öğrenim Hareketliliği Programı'na katılan öğrencilerin, katılmayan öğrencilere göre motivasyon kültürel zekâlarının daha yüksek olduğunu göstermiştir. Bu çalışma öğrenciler Erasmus Programı'nı tamamlayıp ülkelerine geri döndüklerinden sonra gerçekleştirildiği için, programa katılan öğrencilerin programa dair olumlu görüşlerinin programı tamamladıktan sonra da devam ettiği sonucuna varılabilir. Bu bağlamda, öğrencilerin, zorluk yaşasalar dahi, belirli bir süre sonrasında yeniliklere adapte oldukları ve kültürlerarası etkileşime girme konusunda motive oldukları savunulabilir.
- Sonuçlar, Erasmus Öğrenim Hareketliliği Programı'na katılan öğrencilerin, katılmayan öğrencilere göre davranış kültürel zekâlarının daha yüksek olduğunu göstermiştir. Bu sonuçtan hareketle, farklı bir kültürde belirli bir zaman geçirmenin, o kültürün sözlü ve sözlü olmayan davranış şekillerini daha iyi kavramaya ve kültürlerarası iletişimin gerekliliklerine göre davranışlarını daha esnek bir şekilde adapte etmeye yardımcı olduğu tartışılabilir.

Sonuç ve Öneriler

Erasmus Öğrenim Hareketliliği Programı'na katılan öğrencilerin kültürel zekâlarının programa katılmayan öğrencilere göre anlamlı bir farklılık göstermesi birçok çalışmayla uyum göstermektedir. Sonuçlar anlamlı bir farklılık göstermesine rağmen bulgularla ilgili bazı çıkarımlar yapılabilir: Çalışma ODTÜ'de gerçekleştirildiği için çevresel geçerlik bağlamında araştırma sınırlı kalmıştır. ODTÜ'de eğitim dilinin İngilizce olması ve kampüste birçok uluslararası öğrencinin bulunması, hiç yurt dışında bulunmamış öğrencilerin bile kültürel zekâlarını belirli bir oranda artırabilecekleri anlamına gelmektedir. Ancak derslerin İngilizce dilinde işlenmesi, çok uluslu bir öğrenci ve öğretim görevlisi yelpazesine sahip olunması, ikinci yabancı dil derslerinin açılmasına rağmen sonuçların anlamlı bir fark göstermesi, kültürel zekânın geliştirilebilmesi için öğrencilerin farklı bir kültürü tam anlamıyla yaşaması gerektiği olarak yorumlanabilir. Erasmus Öğrenim Hareketliliği Programı kapsamında yurt dışında öğrenim gören öğrenciler, direkt olarak farklı bir kültüre maruz kaldıkları için sürekli olarak kültürlerarası benzerlikleri ve farklılıkları düşünmek (üst-biliş),

günlük hayata dair yazılı ve yazılı olmayan kuralları öğrenmek (biliş), farklı insanlarla etkileşime girmek (motivasyon) ve davranışlarını adapte etmek (davranış) durumunda kalmaktadırlar. Bu anlamda kültürel zekânın gelişiminde, üniversite öğrencileri için, Erasmus Öğrenim Hareketliliği Programı'na katılmanın önemli bir rol oynadığı savunulabilir.

Çalışmanın bulguları ışığında, yükseköğrenim kurumlarının uluslararası işbirliği ofislerine yönelik önerilerde bulunulabilir: Öncelikle öğrenci değişim programlarından faydalanacak öğrencilere destek sağlaması amacıyla her üniversitede mutlaka ilgili birimler kurulmalıdır; yurt dışına eğitim görmeye gidecek öğrencilere oryantasyon programları düzenlenmeli, gidecekleri ülkelerin kültürleri hakkında bilgi verilmeli, kültür şoku, ev özlemi (homesickness), etnomerkezcilik gibi kavramlar anlatılmalıdır.

E. Tez Fotokopisi İzin Formu

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