

**An Examination of Chinese International Students' Personality Traits  
and Cross-Cultural Sensitivity Dimensions**

by

Mingyu Huang

A dissertation submitted to the Graduate Faculty of  
Auburn University  
in partial fulfillment of the  
requirements for the Degree of  
Doctor of Philosophy

Auburn, Alabama  
May 5, 2018

Keywords: Chinese students, personality traits, cross-cultural sensitivity

Copyright 2018 by Mingyu Huang

Approved by

Maria Witte, Chair, Professor of Educational Foundations, Leadership, and Technology  
James E. Witte, Professor of Educational Foundations, Leadership, and technology  
Leslie Cordie, Assistant Professor of Educational Foundations, Leadership, and Technology  
Chih-hsuan Wang, Assistant Professor of Educational Foundations, Leadership, and Technology

## Abstract

The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions. This study used the Personality Traits theory from Goldberg (1992) and Cross-Cultural Sensitivity theory as identified by Cushner (1986). Students were studying in the United States and were of Chinese descent. Data collected were from Chinese students attending a public four-year southeastern university. The study provided new insights about the relationship between Personality Traits and Cross-Cultural Sensitivity for Chinese students.

A quantitative research design was used to address five research questions. Participants were students enrolled at a large southeastern research institution in the U.S. during the Fall semester, 2017. Survey data was analyzed through descriptive statistics, Factorial MANOVA, and multiple regression analysis.

Results showed that Chinese international students had the highest scores in agreeableness, and lowest scores in extraversion on the Big Five Personality Traits survey. Chinese international students had the highest scores in Intellectual Interaction, and lowest scores in the Behavioral Scale using the Cross-Cultural Sensitivity Inventory. Males had highest scores on the openness factor compared to females.

This study suggests that educators consider gender differences when designing class activities in international classrooms. Educators can try different kinds of culture communication activities for Chinese students due to their high intellectual orientation toward interactions to raise their perception of other people's behavior. In addition, educators could provide more opportunities to international students to communicate with other culture students, and encourage female students to take the lead or take responsibility for the task. Developing cross-cultural sensitivity characteristics are the best way to help international students adapt to United States' learning and living well and fast.

## Acknowledgments

I would like to take this opportunity to express my sincere appreciation to all the people who provided continuous support throughout my graduate studies. First of all, I would like to express my deepest gratitude to my committee members for supporting and advising me during the proposal and implementation of this study. Foremost, I would like to express gratitude to my chair Dr. Maria M. Witte for her guidance, advice, revisions, understanding and patience. Without her support I could not have completed this dissertation. I would like to also thank Dr. Leslie Cordie for her recommendations and care; Dr. James E. Witte for his guide on dissertation writing approach; and Dr. Chih-hsuan Wang for her suggestions on the data analysis and data interpretation. As my university reader, Dr. Xi Lin provided continuous support and encouragement to me as well.

Additionally, I would like to express my gratitude to Dr. Xi Lin and Dr. Hong Shi for their review and suggestions for the dissertation. I thank the staff from Auburn Global Program for their support and help with data collection of this study. I also thank all the students of the Auburn Global program for their willingness to participate in the study.

Finally, I would like to thank my parents Jianhong Luo and Zhengyue Huang for their continued support of me and believing in me as well as my friends and fellow colleagues for their encouragement.

## Table of Contents

Abstract .....	ii
Acknowledgments.....	iv
List of Tables .....	ix
List of Figures .....	xi
CHAPTER I: INTRODUCTION .....	1
Overview .....	1
Problem Statement .....	3
Purpose of the Study .....	3
Research Questions .....	4
Theoretical Frameworks .....	4
The Big Five Personality Traits Theory .....	4
Cross-Cultural Sensitivity Theory .....	7
Significance of the Study .....	7
Limitations of the Study .....	8
Definition of Terms .....	9
Organization of the Study .....	9
CHAPTER II: LITERATURE REVIEW .....	11
Overview .....	11

Purpose of the Study .....	11
Research Questions .....	12
Big Five Personality Traits Theory .....	12
Origin of the Big Five Personality Traits Theory .....	12
Big Five Model Traits Theory Overview .....	14
Extraversion .....	19
Agreeableness .....	22
Conscientiousness .....	24
Neuroticism .....	27
Openness .....	29
The Big Five Personality Traits Theory Development in Adulthood .....	31
Gender Difference in Big Five Inventory .....	32
Cultural Difference in Big Five Personality Traits .....	32
Big Five Personality Traits in Education .....	33
The Big Five Personality Traits Theory and Learning Styles Theory .....	34
The Big Five Personality Traits Theory and Work Performance .....	35
The Big Five Personality Traits' Predictive Power .....	37
Cross-Cultural Sensitivity .....	37
Culture Theory .....	37
Cross-Cultural Research Theory .....	39
Cultural Sensitivity Theory .....	40
Cross-Cultural Sensitivity Theory .....	42
The Inventory of Cross Cultural Sensitivity (ICCS) .....	42

Cultural Integration .....	43
Behavioral Response .....	43
Intellectual Interaction .....	44
Attitudes Toward Others .....	44
Empathy .....	44
Summary .....	46
CHAPTER III: METHODS .....	49
Overview .....	49
Purpose of the Study .....	49
Research Questions .....	50
Participants .....	50
Instruments .....	50
The Big Five Personality Traits Inventory .....	51
Cross-Cultural Sensitivity Inventory .....	52
Data Collection Procedures .....	54
Data Analysis Procedures .....	55
Summary .....	55
CHAPTER IV: FINDINGS .....	57
Overview .....	57
Purpose of the Study .....	57
Research Questions .....	57
Demographic Results .....	58
Reliability .....	60

Discussion of Findings .....	61
Research Question 1 .....	61
Research Question 2 .....	63
Research Questions 3.....	64
Age and Degree Seeking Interaction Processing.....	71
Research Questions 4.....	72
Research Questions 5.....	77
Summary .....	83
<b>CHAPTER V: SUMMARY, CONCLUSIONS, IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS .....</b>	<b>85</b>
Purpose of the Study .....	85
Research Questions .....	85
Summary .....	86
Study Overview .....	86
Findings of the Survey .....	89
Conclusions .....	90
Implications .....	90
Limitations .....	92
Recommendations for Future Research .....	93
References .....	94
Appendix A .....	115
Appendix B .....	135
Appendix C .....	138



## List of Tables

Table 1: Different instruments of Big Five Personality Traits theory .....	16
Table 2: Guide of determining levels of Cross-Cultural Sensitivity on the ICCS .....	45
Table 3 The Big Five Personality Traits Dimensions' Definition .....	52
Table 4: Demographic Characteristics of Participants.....	59
Table 5: Reliability of the Big Five Inventory and ICCS .....	61
Table 6: Personality Traits of Participants .....	62
Table 7: Cross-Cultural Sensitivity of Participants .....	64
Table 8: The Big Five Descriptive Statistics: Extraversion.....	65
Table 9: The Big Five Descriptive Statistics: Agreeableness.....	65
Table 10: The Big Five Descriptive Statistics: Conscientiousness.....	66
Table 11: The Big Five Descriptive Statistics: Neuroticism .....	66
Table 12: The Big Five Descriptive Statistics: Openness.....	67
Table 13: Research Question 3 Multivariate Test's Results .....	68
Table 14: Research Question 3 Tests of Between- Subjects Effects .....	68
Table 15: Research Question 3 Personality Trait: Openness.....	69
Table:16: Research Question 3 Multivariate Tests.....	70
Table:17: Research Question 3 Follow up Results.....	70
Table 18: Research Question 3 Descriptive Statistics: Degree Seeking.....	71
Table 19: The Cross-Cultural Sensitivity Descriptive Statistics: Cultural Integration.....	72

Table 20: The Cross-Cultural Sensitivity Descriptive Statistics: Behavioral Scale .....	73
Table 21: The Cross-Cultural Sensitivity Descriptive Statistics: Intellectual Interaction .....	73
Table 22: The Cross-Cultural Sensitivity Descriptive Statistics: Attitude Toward Others .....	74
Table 23: The Cross-Cultural Sensitivity Descriptive Statistics: Empathy Scale .....	74
Table 24: Research Question 4 Multivariate Tests .....	75
Table 25: Research Question 4 Tests of Between-Subjects Effects .....	76
Table 26: Research Question 4 Multivariate Tests .....	77
Table 27: Research Question 5 Dependent Variable: Cultural Integration .....	78
Table 28: Research Question 5 Dependent Variable: Behavioral Scale.....	79
Table 29: Research Question 5 Dependent Variable: Intellectual Interaction.....	80
Table 30: Research Question 5 Dependent Variable: Attitude Toward Others.....	82
Table 31: Research Question 5 Dependent Variable: Empathy Scale.....	83

## List of Figures

Figure 1: Model of the Big Five Personality Traits Theory Dimensions .....	19
Figure 2: Big Five Personality Traits and Job Performance .....	36

## CHAPTER I: INTRODUCTION

### **Overview**

Internationalization of business and education has had significant effects on academic education throughout the world, especially on the higher education field (Zimmermann & Neyer, 2013). The United States has become the most popular country for international students to pursue education. In 2000, 28.4 million foreign-born individuals resided in the United States (U.S. Census Bureau, 2014). In 2003, 624,917 international students arrived to the United States, bringing with them 38,049 spouses and children (Yearbook of Immigration Statistics, 2003). The number of international students in higher education in the United States had the highest rate of growth in 35 years. Chinese students consist of approximately 31.5% of the international student population and are ranked as the largest group (Chow & Bhandari, 2010). Different people have different personality traits. The most widely accepted dimensional model of human personality traits is the Big Five Model, which used by people to describes individual differences along five broad dimensions: extraversion, agreeableness, conscientiousness, neuroticism and openness (Digman, 1990; John, Naumann, & Soto, 2008; McCrae & John, 1992). Also, the cultural sensitivity was considered as one essential value in the modern world especially by the United Nations. The Cross-cultural sensitivity can impact which people called the operating income of corporations seeking, to enhance their activities to foreign countries.

In addition, the Cross-cultural sensitivity can have positive effects in academia (Loo & Shiomi, 1999). Chinese students, which consist of the largest group of international students that study in the United States, have personality traits and cross-cultural sensitivity dimensions that need further investigation.

Previously, there has been research related to immigrants learning and studying in the United States. Olsen (1997) studied immigrant students study conditions in United States public schools. Crawford (2004) researched language diversity in the classroom due to immigrants' influence in the United States. The Cross-cultural factors have also been a research topic that has attracted researchers' additional studies (Huang, Zhou, Bushnell, Diakite, & Yang, 2007; Martinez & Eddy, 2005; Swartz-Kulstad & Martin, 1999; Thomas & Ravlin, 1995). In addition, there has been some research conducted by researchers which relating to psychological conditions and consequences of students' international experiences as well as the benefits (Andrews, Page, & Neilson, 1993; Leong & Ward, 2000; Searle & Ward, 1990). Besides these findings, international students' personality traits have also been researched well (Cheung, van de Vijver, & Leong, 2011). However, there have been limited studies focusing on understanding the community of international students residing in the United States and personality traits and cross-cultural dimensions. For example, some studies have examined Chinese international students' leisure experiences (Allison & Geiger, 1993; Li & Stodolska, 2006; Walker, Deng, & Dieser, 2001) and Asian students' education and academic experiences in a United States higher education institution study background (Hodges, Cresswell, Daggfeldt, & Thorstensson, 2001; Jackson & Heggins, 2003). However,

there are differences in education and life experiences when compared to domestic students, and there has been a lack of research pertaining to personality trait factors that may influence international students' cultural sensitivity.

### **Problem Statement**

Some research has explored Chinese students' learning and study experiences in the United States. Studies related to academic and leisure conditions of Chinese international students have also been conducted (Allison & Geiger, 1993; Judge & Bono 2000; Stodolska, 2000; Stodolska & Alexandris, 2004; Stodolska & Yi, 2003). However, there are limited studies focusing on understanding the personality traits and cross-cultural sensitivity dimensions of international students residing in the United States. Some studies have focused on Chinese international students' experiences (Allison & Geiger, 1993; Walker, Deng, & Dieser, 2001; Yu & Berryman, 1996). Other studies have included Asian students' education and academic experiences in United States higher education institutions (Hodges, Cresswell, Daggfeldt, & Thorstensson, 2001; Jackson & Heggins, 2003). However, due to differences in education and life experiences as compared with domestic students, there has been little research focusing on personality traits that may influence international students' cross cultural sensitivity.

### **Purpose of the Study**

The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions. This study included Chinese students as this group is the largest international student population in higher education

institutions in the United States (Chow & Bhandari, 2010). Participants were enrolled in a public four-year southeastern university and were from different majors and schools in this university. All had participated in related intensive English learning programs.

### **Research Questions**

The following research questions were used in this study:

1. What are the personality traits of Chinese international students?
2. What are the cross-cultural sensitivity dimensions of Chinese international students?
3. What is the relationship between demographics and personality traits?
4. What is the relationship between demographics and cross-cultural sensitivity dimensions?
5. What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?

### **Theoretical Frameworks**

The Big Five Personality Traits theory created by Goldberg (1992) and improved by Costa and McCrae (1992) and the Cross-Cultural Sensitivity theory created by Cushner (1986) are provided as the theoretical frameworks for this study.

#### **The Big Five Personality Traits Theory**

The Big Five Personality Traits was created by Goldberg (1992) and is widely accepted and a commonly used personality model in the academic, psychology, and education related research fields. The Big Five Personality traits is a model which is based on

common language descriptors of people's personality. This theory is based on word associations and description instead of academic neuropsychological experiments. This instrument identifies five dimensions commonly used to describe personality (Toegel & Barsoux, 2012). This instrument was previously established and has been used previously by researchers from related research field (Heller & Mount, 2002).

In the 1970s, Paul Costa and Robert McCrae created a new personality inventory which based on Goldberg's theory. The new inventory included three factors. They are Neuroticism, Extraversion, and Openness (NEO) (Costa & McCrae, 1976). Therefore, according to the new three factors, this inventory was called NEO. Later, in the 1980s, Costa and McCrae revised the NEO Personality Inventory by adding two more additional factors and they were Agreeableness and Conscientiousness (Costa & McCrae, 1989). Later, this revised inventory was identified as revised NEO Personality Inventory. The revised NEO Personality Inventory (Costa & McCrae, 1992) has been translated in over 30 languages (Benet & John, 1998). There has been evidence that the supports construct validity of the Big Five Personality Traits, which including convergent and discriminant validity across multiple raters and instrument types, with high internal reliability, and high predictive validity for a variety of important life outcomes (Deary, Weiss, & Batty, 2010; DeYoung, 2006; John, Naumann, & Soto, 2008; Judge, Higgins, Thoresen, & Barrick, 1999; Paunonen, 2003; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007). Although personality variables have been identified in previous related research, the Big Five Personality instrument has been effective in to explaining people's personality in the areas of extraversion, neuroticism,



agreeableness, conscientiousness and openness to experience these different factors (Judge & Bono, 2000). The details of five factors are explained below:

Extraversion: It refers to the positive emotions. High levels of extraversion is always described as attention-seeking, and domineering (Toegel & Barsoux, 2012).

Neuroticism: It is a tendency to describe the degree of emotional stability, and the impulse control (Judge & Zapata, 2015).

Agreeableness: It is a measure of people's trusting degree and helpful nature. High levels of agreeableness is always naive, and full of submissive (Witt, Burke, Barrick, & Mount, 2002).

Conscientiousness: It is a tendency to be well organized and dependable. High levels of conscientiousness people is often perceived as stubbornness and obsession people (Costa, & MacCrae, 1992).

Openness: openness reflects people's degree of intellectual curiosity, creativity and the preference for novelty and variety which always an individual possesses. High levels of openness people can always be perceived as a unpredictability or lack of focus people (Toegel & Barsoux, 2012).

The Big Five Personality Traits have been translated and used in a variety of languages and cultures, and has been translated into Chinese as well (Trull & Geary, 1997). Some research has examined the relationships between personal traits and cultural differences (McCrae & Terracciano, 2005).

## **Cross-Cultural Sensitivity Theory**

Cross cultural sensitivity is the knowledge, awareness, and acceptance which always indicate of other cultures. Being supportive of cultural sensitivity, is always based on ideological or the practical other considerations in some degree. Cross-cultural sensitivity can have the positive effects in the academia fields, and the related training for health care providers can also improve the satisfaction, and health outcomes of patients who from different minority groups. Many approaches have promoted the Cross-Cultural Sensitivity (Loo & Shiomi, 1999). Cushner (1986) created The Inventory of Cross-Cultural Sensitivity (ICCS) which is a 32-item self-report inventory which uses a 7-point Likert scale from strongly agree to strongly disagree, to tap five major aspects of people's Cross-Cultural Sensitivity. The five major dimensions are Cultural Integration, Behavioral Response, Intellectual Integration, Attitudes Toward Others, and Empathy.

The ICCS has been results in useful in helping participants to discover and critically examine about their own views, and to stimulating group discussions on cross-cultural issues from both management and organizational perspectives, as well as in encouraging attitude and behavioral change which toward greater cross-cultural sensitivity while people to recognizing that such change is difficult (Loo & Shiomi, 1999).

### **Significance of the Study**

Chinese students are the largest group of international students in the United States according to the fact. Understanding Chinese international students' cross-cultural sensitivity dimensions and personality traits would be essential to provide appropriate instruction and

services to Chinese international students. Being able to adapt is one important factor in a college students' life, especially for international students. Compared to the domestic students, the Chinese international students group may have characteristics worth examining in the related literature fields. The current study identifies suggestions for both of the instructors, administrators, and researchers in the international study related field. As a result, it would be beneficial to study and understand Chinese international students' personality traits and cultural sensitivity about in this specific group. Furthermore, it will list appropriate instructional resources and methods which may help Chinese international students enhance intellectual interaction with others and improve their empathy.

### **Limitations of the Study**

There are three main limitations in this study. The first limitation is the sample limitation. The sample in this study was from one southeastern university campus. Therefore, the results may not be generalizable to other institutions in the United States, whose population and study environment may not precisely parallel international students in higher education institutions in the United States as well. Location and academic factors may affect the conditions when researchers used to compare to other universities. Although the international students can be a large segment of the student population, they are still a small and limited number of students when compared to domestic students. Chinese students are the largest number of international students at this research campus. The second limitation is the degree major. For example, the Chinese students who are in the sample may in specific academic majors and departments. In this study, most of the participated are in business and

engineering related major. The students who choose those major may have similar traits which influence study results. Thirdly, this is a self-reported survey. Some of the students may not completely understand themselves and their living, learning condition well when they taking the survey.

### **Definition of Terms**

*Big Five Model (or five-factor model)*, describes individual differences along five broad personal dimensions: extraversion, agreeableness, conscientiousness, neuroticism and openness (Digman, 1990; John, Naumann, & Soto, 2008; McCrae & John, 1992).

*Cross-cultural sensitivity* is people's knowledge, awareness, and acceptance of other cultures (Loo & Shiomi, 1999).

*International students* are those students who do not hold citizenship or permanent residency status in the United States.

*Personality Traits* are the patterns of the thoughts, feelings, and their behaviors which will reflect people's characteristic. Most of the time, personality traits are considered as consistent and stable (Goldberg, 1992).

*Traits* are the personality structure which always used to describe people's distinctive characteristics (Pervin & John, 1999).

### **Organization of the Study**

This study is organized into five chapters. The Chapter 1 is the introduction to the study. It includes an overview, problem statement, purpose of the study, research questions, theoretical frameworks, significance of the study, limitations of the study, and definition of

terms. The Chapter 2 provides a review related research literature relevant to the research questions. The Chapter 3 describes the methods of for the study. It includes sample selection, instruments, and data interpretation. The Chapter 4 contains the findings including demographics for the study and survey results. The Chapter 5 provides the implications. In addition, it provides recommendations for further research, references, and appendices.

## CHAPTER II: LITERATURE REVIEW

### **Overview**

The review of the literature introduces and discusses theories of Big Five Personal Traits and Cross-Cultural Sensitivity. The theoretical framework of Big Five Personal Traits was first discussed and then the conceptual framework of the Cross-Cultural Sensitivity was introduced. The theoretical framework of Big Five Personal Traits includes theory overview, theory origin, personality traits conception, and theory practical use. The theoretical framework of Cross-Cultural Sensitivity includes culture theory, Cross-Cultural Research Theory, Cultural Sensitivity Theory, and Cross-Cultural Sensitivity Theory. Finally, the summary for Big Five Personal Traits theory and Cross-Cultural Sensitivity theory were presented.

### **Purpose of the Study**

The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions. This study included Chinese students as target group due to they are the largest international student population in higher education institutions in the United States (Chow & Bhandari, 2010). Participants were enrolled in a public four-year southeastern university and were from different majors and schools in this university. All had participated in related intensive English learning programs.

## **Research Questions**

The following research questions were used in this study:

1. What are the personality traits of Chinese international students?
2. What are the cross-cultural sensitivity dimensions of Chinese international students?
3. What is the relationship between demographics and personality traits?
4. What is the relationship between demographics and cross-cultural sensitivity dimensions?
5. What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?

## **Big Five Personality Traits Theory**

### **Origin of the Big Five Personality Traits Theory**

In the year of 1884, Sir Francis Galton investigated one hypothesis, which was always called to lexical hypothesis. This hypothesis 'investigated make it is possible to derive one comprehensive taxonomy of people or we called human personality traits by sampling their language (Shrout & Fiske, 1995). In the year of 1936, researchers Allport and Odbert try to put Sir Francis Galton's lexical hypothesis into practice (Allport & Odbert, 1936). Allport and Odbert identified total 4504 adjectives and try to describe people's traits from these different dictionaries. In 1940, Raymond Cattell started continued Allport and Odbert's study and successfully reduced these adjectives to 171 factors. He also designed a self-report

instrument system which was always called the Sixteen Personality Factor Questionnaire (Cattell, 1957). In the year of 1961, researchers Ernest Tupes and Raymond Christal started to label some factors based on Raymond Cattell's study. These factors or dimensions were dependability, emotional stability, agreeableness, and culture (Tupes & Christal, 1961). In the year of 1963, Warren Norman replaced the dependability with another factor conscientiousness (Norman, 1963).

During the 1980s, emerging methodologies always challenged these points of view. Instead of trying to predict human individual behavior, researchers were paying more attention to predicting people's patterns of behavior by gathering large numbers of observations (Epstein & O'Brien, 1985). As a result, correlations between the personality and people's behavior increased substantially. Later, the researchers found the personalities do exist (Kenrick & Funder, 1988). Therefore, trait theories were being validated a lot and more and more researchers focused on this field of study (Eysenck & Eysenck, 1980). In the 1980s, Lewis Goldberg started to focus on a lexical project which people named the Big Five Personality Traits (Goldberg, 1981).

In the 1970s, researchers Paul Costa and Robert McCrae created a new personality inventory based on Goldberg's previous theory. The new inventory was including three new factors. They are Neuroticism, Extraversion, and Openness (NEO) (Costa & McCrae, 1976). This inventory is used to measure the five dimensions of neuroticism, and openness, extraversion, agreeableness, conscientiousness. The Big Five Personality Traits do not



measure people's differences personality in only five traits (John & Srivastava, 1999). These five dimensions do represent human personality at the broadest level of their abstraction (John & Srivastava, 1999). These basic dimensions of human personality are regarded as the most important approach in which individuals are results in differ in their handling of emotional, attitudinal, motivational styles, and interpersonal, experiential (McCrae & John, 1992).

### **Big Five Model Traits Theory Overview**

The most widely accepted and regarded as dimensional model of understanding people personality traits is the Big Five Model which used to describes individual differences along five different dimensions: extraversion, agreeableness, neuroticism, openness, and conscientiousness (Digman, 1990; John, Naumann, & Soto, 2008; McCrae & John, 1992). These five different dimensions have been identified to using descriptive adjectives of human personality in various languages and different cultures, usually represented by the acronyms OCEAN (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) or CANOE (Conscientiousness, Agreeableness, Neuroticism, Openness, and Extraversion). The revised version NEO (Neuroticism, Extraversion, and Openness) Personality Inventory (Costa & McCrae, 1992) has been translated into over 30 languages in the world. The five dimensions or factors have been used in 26 cultures, particularly such as neuroticism and conscientiousness, and other dimensions least clearly replicated has been called the openness to experience (Benet & John, 1998). There has been several evidence that supports the

research validity of the Big Five Model, which also includes convergent and discriminant the validity across multiple raters and the instrument types, the high internal reliability, and the predictive validity for different types of important life outcomes (Deary, Weiss, & Batty, 2010; DeYoung, 2006; John, Naumann, & Soto, 2008; Judge, Higgins, Thoresen, & Barrick, 1999; Paunonen, 2003; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007).

The Big Five personality framework is widely accepted in some of the organizational sciences related fields and can be used to predict numerous different organizational outcomes (Barrick & Mount, 1991; Judge, Heller, & Mount, 2002). In addition, the personality traits have the potential use to either facilitate or debilitate people to learn a second or foreign language (MacIntyre & Charos, 1996; O'Connor & Paunonen, 2007).

In the Big Five Personality Traits theory, personality traits were always measured using different instruments. Different Big Five Personality Traits instruments were used to indicated the different research questions under different situations which related to personality traits. Previous tested reliability of the Big Five Personality Traits was typically ranged from 0.79 to 0.88 (Hee, 2014). Table 1 shows the instrument used in each study (Mendiburo-Seguel, Paez, & Martinez-Sanchez, 2005).

Table 1

*Different instruments of Big Five Personality Traits theory*

Study	Sample Characteristics	Big Five instrument used
Veselka, Schermer, Martin, Cherkas, Spector and Vernon (2010)	1,186 pairs of twins: 664 monozygotic twin pairs (604 female pairs and 60 male pairs) and 522 dizygotic twin pairs (482 female pairs and 40 male pairs). Ages from 18 to 92 years ( $M = 56.4$ , $SD = 13.2$ ).	60-item HEXACO Personality Inventory
Vernon, Villani, Schermer <i>et al.</i> (2009)	Three hundred pairs of adult MZ twins (230 female pairs, 70 male pairs) and 156 pairs of adult DZ twins (61 female pairs, 45 male pairs, 50 opposite sex pairs) took part in this study. Ages from 18 to 74 years (mean = 41.2, $s = 10.7$ ).	NEO PI-R
Stokenberga (2008)	One hundred and eighty three students from psychology, communications and political science courses (152 females and 31 males, ranging in age from 18 to 38 years, $M = 20.01$ , $SD = 2.02$ ) on a voluntary basis.	NEO PI-R
Jovanovic (2011)	225 (125 females, 100 males) young adults, mostly undergraduate students in various departments of the University of Novi Sad. The mean age of the participants was 23.61 years ( $SD = 3.83$ ), with a range of 18–36 years.	Big Five plus Two-Short Form (VP+2-SF).
Özyesil, Deniz and Kesici (2013)	435 (40.2% male) students. The sample ranged in age from 18 to 26.	Adjective Based Personality Test (ABPT)
Greengross and Miller (2008)	Students. 64 female participants (mean age = 20.0 years, $SD = 2.3$ ) and 32 male participants (mean age = 21.2, $SD = 5.5$ ).	NEO PI-R
Saroglou and Scariot (2002)	94 students (51 women) between 16 y 18 years old.	Bipolar rating scales based on the Five-Factor Model of personality
Martin, Puhlik-Doris, Larsen, Gray and Weir (2003)	152 adults (46 male, 106 female).	NEO PI-R
Greven, Chamorro-Premuzic, Arteché and Furnham (2008)	1,038 (300 male, 738 female) university students aged between 17 and 48 years ( $M = 24.15$ , $SD = 6.29$ years).	The Big Five Inventory (BFI).
Páez, Mendiburo-Seguel and Martínez-Sánchez (2013)	57 people (Mean age = 32.44; $SD = 14.41$ ), 59.7% women.	Big Five Inventory (BFI)
Páez, Mendiburo-Seguel and Martínez-Sánchez (2013)	243 university students (Mean age = 22.05; $SD = 5.12$ ), 74.22% women.	Big Five Inventory (BFI).
Harris (2010)	292 female university students. The age of the participants ranged from 17 to 45 years old ( $M = 18.95$ , $SD = 2.29$ ).	Big Five Inventory (BFI).
Greengross, Martin and Miller (2012)	31 standup comedians and 400 university students.	NEO-FFI-R Survey (Costa & McCrae, 1992)
Ruch and Heintz (2013)	162 participants (24% men) with a median age of 24 ( $M = 27.33$ , $SD = 9.37$ ). Most participants were Swiss (61%), German (29%).	Big Five Inventory (BFI).
D'anello, D'orazio, Barreat Montero and Escalante (2009)	158 teachers from public schools.	The Spanish Big Five Inventory

Source: (Mendiburo-Seguel, Paez, & Martinez-Sanchez, 2005)

Traits are the personality structure defined by researchers which can be used to describe people' distinctive characteristics (Pervin & John, 1999). Traits related theorists

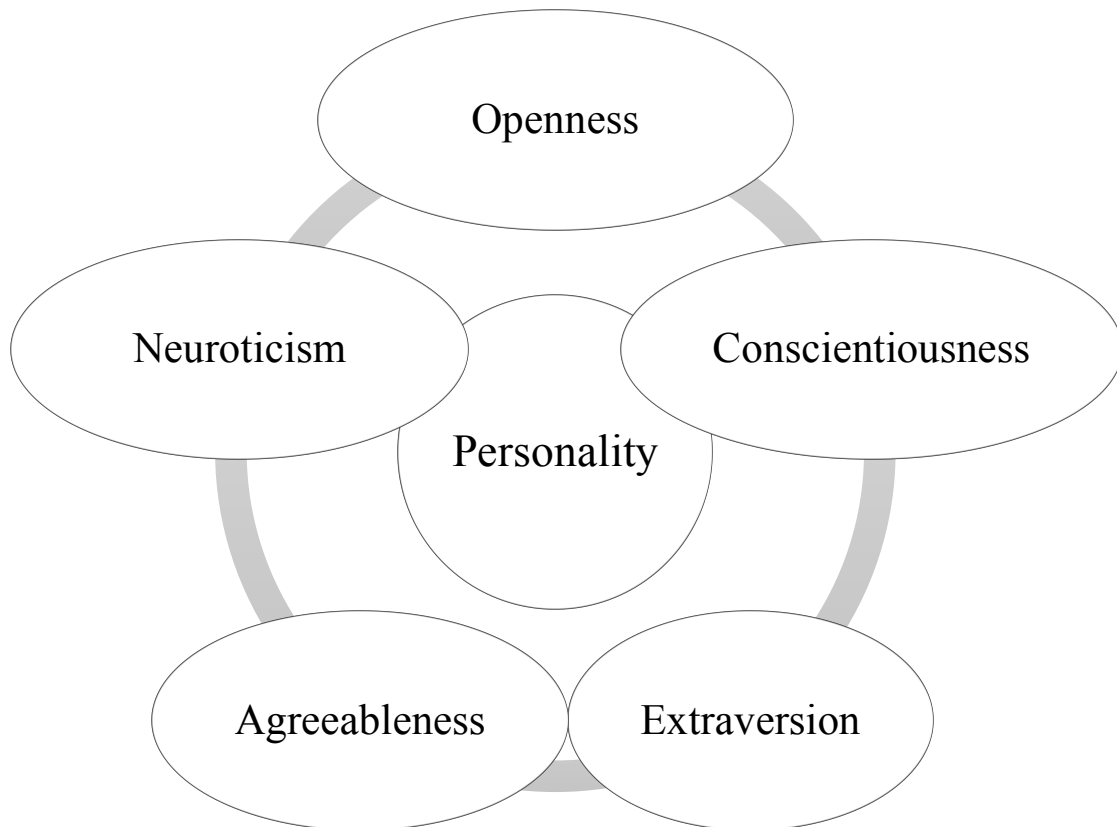
have always recommended relate to different Big Five personality traits to identify people traits (John, Robins, & Pervin, 2008). The Big Five Personality Traits has been used in different cultures and is accepted as a basis for contrasting, integrating and comparing diverse personality traits all over the world (McCrae & Terracciano, 2005). However, there is a lack of studies that examine the relationship between Big Five personality traits and Cross-Cultural Sensitivity.

Personality Traits are hierarchically organized by researchers into five different domains, consisting of agreeableness, conscientiousness, extraversion, neuroticism and openness (Markon & Krueger, 2005). The Big Five Traits has identified people behaviors, affective experiences and cognitive processes across different cultures in the world (McCrae, 2009). Previous studies have suggested that the human or more specified student personality traits should be taken into consideration in education programs designed to enhance empathy in different cultural situations. These studies showed that the agreeableness was the most important predictor of empathy scale across different cultures among both campus students and adult learners (Costa Jr, Terracciano, & McCrae, 2001; Melchers, Li, Haas, Reuter, Bischoff, & Montag, 2016). There is documented evidence which indicating that agreeableness, which always represents the tendency to being altruistic, cooperative, helpful and sympathetic, tender-minded is responsible for daily and social behavior, or the behavior which beneficial for other people in the same society (Graziano & Eisenberg, 1997; Srivastava, 1999). Previous research also indicated that agreeableness is always correlated

with empathic scale, which reflects people emotions of helping other people who in need or let people always feeling responsibility and concerns to be the well-being for others (Mooradian, Davis, & Matzler, 2011).

In addition, the neuroticism, which characterized by one inappropriate level of emotional arousal (Eisenberg, 2000) and one negative emotions such as anxiety, self-consciousness, and depression usually shares many core features with people's personal distress which always reflects the self-centered human being's feelings of discomfort and anxiety when other people are distressed by other condition according to the different environment (Davis, 1980; Lee, 2009). Also, openness was expected to have tendency about positive associations with people's cognitive empathy, which usually implies human being's ability to understand other people's internal thought which includes their thoughts (Hogan, 1969; Magalhães, Costa, & Costa, 2012). The third (conscientiousness), fourth (neuroticism) and the fifth (openness) dimensions are more intrapersonal related to research study in nature. These three factors refer to the approach people carry out tasks and then regulate their emotions and cognitions in society (McCrae & Costa, 2010).

Furthermore, the conscientiousness was results to have predictive value for people empathy emotion as well (Melchers, Li, Haas, Reuter, Bischoff, & Montag, 2016). Figure 1 shows the Big Five Personality Traits which is composed of five dimensions. They are Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. In the following sections, the dimensions will be described in details.



*Figure 1.* Model of the Big Five Personality Traits Theory Dimensions

### **Extraversion**

The extraversion dimensions always describe people's interpersonal traits by two different sides, extraversion or introversion, which usually indicates people's preference of interacting with other people or being alone. People who have this trait or have high score on this traits in survey according to the results will have more tendency to show energy, positive emotions, assertiveness, sociability, also the tendency to seek stimulation in one working place of other people, and show talkativeness (Toegel & Barsoux, 2012). Extraverted people will more likely to perform well in conditions which can utilizing their strong social skills.

Ashton, Lee and Paunonen indicated (2002) that the most frequently noted feature of

extraversion by researchers is the people's social attention (Ashton, Lee, & Paunonen, 2002). Extraversion includes the emotion such as warmth, gregariousness, stimulation-seeking and tendency to experience positive emotions, activity (Mendiburo-Seguel, Páez, & Martínez-Sánchez, 2015). The research in related correlational and experimental study fields has consistently found that the extraversion factor always associated with people's positive effect (Costa & Terracciano, & McCrae, 2001). It has been confirmed and have plenty evidence all over the world that the core aspect of extraversion is the greater sensitivity to rewards (Lucas, Diener, Grob, Suh, & Shao, 2000). The extraversion which related to the temperamental traits of sociability (the tendency to interact with other people) and activation (the high intensity and rapid pace of people's behavior).

According to Ashton et al. (2002) study, extraverted people are more likely to enjoy the social attention compare to their introverted counterparts (Ashton, Lee, & Paunonen, 2002). Furthermore, the extraverted people have better adaptation at social environment, emotional control, and emotional sensitivity compare with others (Riggio, 1986). In addition, the extraverted people are more likely to be described as the high-energy excitement seekers (Costa & McCrae, 1992; Goldberg, 1992). Previous research usually suggests that the extraverted people more likely to enjoy competitive environments (Bentea & Anghelache, 2012; Graziano, Feldesman, & Rahe, 1985; Kirkcaldy & Furnham, 1991). Extraverted people always tend to perform better than introverted people when all of them were putting into competitive groups (Bentea & Anghelache, 2012). Obviously, the

extraverted people should be particularly have more skilled at handling problems requiring social interaction compared with others (Tett & Burnett, 2003). Highly extraverted people will usually be described as attention-seeking person or the person who likely have domineering. On the opposite side, individuals with low extraversion always seem reserved, and have a reflective personality which often described as aloof or self-absorbed according to the study (Toegel, & Barsoux, 2012). Therefore, the extraverted individuals are primed to exhibit more valued work behaviors in occupations which require strong social skills, occupations which are competitive in nature, and should have occupations which require dealing with unpleasant or angry people in working environment (Judge & Zapata, 2015).

According to The Big Five Inventory, there were eight sample terms included in Extraversion. They are:

- Talkative
- Reserved
- Full of energy
- Generates a lot of enthusiasm
- Tends to be quiet
- Has an assertive personality
- Is sometimes shy, inhibited
- Is outgoing, sociable



According to the inventory scale scoring results, people who have low extraversion score can be called introverts by researchers. On the opposite way, people who have high extraversion score can be called as extraverts people. Introverts tend to have lower social engagement and lower energy levels compare to extraverts. Introverts can be seen as more quiet, less involved in the social world and deliberated in working place. But people who are introverts are not means they are unfriendly or antisocial. According to the related research results, under most of the conditions, introverts are reserved in social situations (Rothmann & Coetzer, 2003).

### **Agreeableness**

Compare to extraversion dimension, the agreeableness is an interpersonal trait (Graziano & Eisenberg, 1997). Agreeableness is a tendency to be compassionate with other people and show more cooperative rather than suspicious to people and antagonistic towards others in society (Toegel & Barsoux, 2012). Agreeableness factor is always used as a measure of people's trusting and helpful nature, and to check whether a person is generally well-tempered or not. People who have high score in agreeableness trait are more likely to have positive relations with others (Costa & McCrae, 1992). High agreeableness is usually seen as naive or submissive in social environment (Toegel & Barsoux, 2012). Agreeableness in people is more likely to described as trusting, kind, cooperative, warm, and modest by other people (Costa & McCrae, 1992; Goldberg, 1992). Agreeableness is one personality traits dimension which includes emotion of trust, altruism, cooperativeness, moderation,

modesty and compassion (Costa & McCrae, 1992). Graziano, Jensen-Campbell, and Hair (1996) found that people who results in high agreeableness score always reported higher levels of deal with the randomly assigned partner (Graziano & Eisenberg, 1997). In addition, Mount et al. (1998) found that the agreeableness was always positively related to people performance for situations which requiring to have dyadic interactions (Mount, Barrick, & Stewart, 1998). The agreeableness characteristics include the tendency to cooperate with other people and avoid conflict (Costa & McCrae, 1992; Goldberg, 1992). It also often associated with likely to demonstrations of caring and concern for other people in society (Costa & McCrae, 1992). In other words, the agreeable group of people always want to maintain the positive relationships with other people (Witt, Burke, Barrick, & Mount, 2002). People who get low agreeableness score are usually competitive or like to challenging others. This group of people can always be described as argumentative or untrustworthy people. In summary, people who are agreeable are helpful during different conditions which require strong social skills, and in dealing with unpleasant or angry individuals, as well as survive in competitive environments in society competition (Judge & Zapata, 2015).

According to The Big Five Inventory, there were nine sample terms included in Agreeableness. They are:

- Tends to find fault with others
- Is helpful and unselfish with others
- Starts quarrels with others

- Has a forgiving nature
- Is generally trusting
- Can be cold and aloof
- Is considerate and kind to almost everyone
- Is sometimes rude to others
- Likes to cooperated with others

According to the inventory scale scoring results, people who have low agreeableness score can be called as disagreeable individuals. On the opposite way, people who have the high agreeableness score can be described as agreeable individuals. The agreeable people doing well in getting along with others, and always have an optimistic view of other people because the function of agreeableness trait is to reflecting people differences in general concern for social harmony. The disagreeable people are willing to pay more attention on themselves compared to learn, understand, and getting along with others. Some of them are likely to be unfriendly, suspicious, and uncooperative due to their skeptical about others' motives (Bartneck, Van Der Hoek, Mubin, & Al Mahmud, 2007).

### **Conscientiousness**

The conscientiousness dimension in the Big Five Personality Traits as people's tendency to always be self-disciplined and goal-directed. In other words, the Conscientiousness factor can represent one people's trait to be well organized and dependable, high passion on achievement, and make everything well planned rather than

spontaneous behavior (Toegel & Barsoux, 2012). The conscientiousness always associated with people's health-enhancing behaviors and the negatively associated with people's health-damaging behaviors (Bogg & Roberts, 2004). The Conscientiousness dimension includes the competence emotion with other people in society, well-ordered, duty-oriented, and tend to toward achievement, cautiousness and self-discipline (Mendiburo-Seguel, Páez, & Martínez-Sánchez, 2015). This trait has always associated with people's academic success, and it also including people's interpersonal traits. Finally, it is always associated with impulsive temperament (McCrae & Costa, 2010). Moreover, the Big Five are not a completely independent dimensions personality compare with other traits (Goldberg, 1992), so it is important for researchers to evaluate the interaction between Big Five Personality traits (Hampson, Edmonds, Barckley, Goldberg, Dubanoski, & Hillier, 2016).

McCrae (2005) indicated that when individuals are under specific situations, their characteristic adaptations should force them changed naturally and translate into effective job performance. Also, people whose traits more likely relevant with others will more likely represent performance recognized by other people. Furthermore, traits will guide people to recognize their own traits from observation of others' behavior, and others may show back on high performance if the people' traits seem relevant to the environment (Goldberg, 1992).

In particular, conscientious people always perform well compare with others in occupations requiring independence, and the conscientious people are often described as achievement striving people (Costa & McCrae, 1992) and full of ambitious (Goldberg, 1992).

When it comes to the conscientiousness traits, Costa and McCrae (1992) noted that to allow conscientiousness individuals to work independently should enhance the positive effect of conscientiousness on working performance (Costa & McCrae, 1992).

In addition, Costa and McCrae (1992) indicated that the conscientious individuals are described as responsible, reliable, and dependable people. Jackson et al. (2003) found that the conscientious students were more likely to reported as behaviors associated with education organization. For example, the conscientious students were reported try to using a system for keep their important documents and systematically make plan to keeping track of important work dates and do schedule to track on daily activities while they were less likely to report as behaviors which associated with disorganization, such as forgetting important appointments and meetings (Judge & Zapata, 2015). Previous research has found that the conscientious people are willing to set personal work goals for themselves compare to the people who have low score in conscientiousness traits always demonstrating more commitment (Barrick, Mount, & Strauss, 1993).

Mount, Barrick, and Stewart (1998) examined some research which provide evidence that the conscientiousness people have tendency to report positivite relationships with others (Barrick, Stewart, Neubert, & Mount, 1998). According to The Big Five Inventory, there were eight sample terms included in Conscientiousness. They are:

- Can be somewhat careless
- Is a reliable worker

- Tends to be disorganized
- Tends to be lazy
- Perseveres until the task is finished
- Does things efficiently
- Makes plans and follows through with them
- Is easily distracted

According to the inventory scale scoring results, people will divide to high conscientiousness people group and low conscientiousness people group depending on their different personal traits. Conscientiousness trait is examining that always related to the approach in how people control, regulate, and direct their own work. In summary, the high conscientiousness people always prefer making plans rather than doing the spontaneous behavior (Costa, & MacCrae, 1992).

### **Neuroticism**

The personality trait factor Neuroticism is refined to a personal affective trait (Costa & McCrae, 1989). It is described as people's tend to deal with unpleasant emotions well, such as anger, depression, vulnerability, and anxiety (Toegel, & Barsoux, 2012).

Neurotic individuals are less susceptible compare to others' emotions, and they are more likely equipped with environments well in which require to deal with unpleasant or angry individuals in complicated situations. In addition, the Neurotic individuals are less likely to

appraise the stressful situations such as threats, and they will respond appropriately in difficult social situations especially in working place (Judge & Zapata, 2015).

Neuroticism is defined as a personality factor characterized by the tend to deal with negative emotions, and is always associated with emotional distress or negatively effects by other people (Mendiburo-Seguel, Páez, & Martínez-Sánchez, 2015). People who have high score in Neuroticism according to the survey results will more likely to have greater anxiety, emotional vulnerability, impulsiveness, and self-consciousness in the society. The adjectives used for neuroticism people have covered two different areas: (1) the impulsiveness, which made up for adjectives such as “impulsive,” and (2) Affective instability, which related to being changeable and opposite to keep calm (Smith & Bond, & Kagitcibasi, 2006).

According to The Big Five Inventory, there were eight sample terms included in Neuroticism.

They are:

- Is depressed, blue
- Is relaxed, handles stress well
- Can be tense
- Worries a lot
- Is emotionally stable, not easily upset
- Can be moody
- Remains calm in tense situations
- Gets nervous easily

According to the self-reported survey results, people will have two different score tendency which are high neuroticism or low neuroticism. High neuroticism people are more likely to do emotionally reactive and easily to feel vulnerable and stress. High neuroticism individuals are more likely to interpret the ordinary conditions as threatening situations. Compared with the low neuroticism group individuals, high neuroticism individuals more tend to display skin-conductance reactivity (Norris, Larsen, & Cacioppo, 2007). People with high neuroticism score in survey tend to experience more negative life events, compare to neuroticism also make changes in results in positive and negative life experiences (Reynaud, El Khoury-Malhame, Rossier, Blin, & Khalfa, 2012).

### **Openness**

Openness is a personality trait factor which are able to help people perform well in occupations requiring independence (Judge, & Zapata, 2015). Openness dimension reflects people's degree of intellectual curiosity and creativity. Usually it is show the extent to a person's imaginative or independent degree. The openness dimension includes the aesthetic openness and the openness to individuals' feelings, activities, ideas and values (McCrae & Costa, 2010).

Hmel and Pincus (2002) found that all segments of openness were tightly associated with self-govern tendency. Openness is always associated with reactive autonomy (Koestner & Losier, 1996). People who have high score in openness can be described as unpredictable people. They more likely to pursue self-actualization and lack of focus



specifically by euphoric experiences. McCrae (1992) reported that the openness were always positively related to creativity and divergent thinking (Raja & Johns, 2010). In addition, King et al. (1996) found that the openness dimension was positively correlated with individuals' creative ability and creative accomplishments. Previous research suggests that people who have high score on openness trait will perform well in occupations requiring independence, in addition in occupations with strong demand. People who have low openness score according to the survey results refers to individuals who seek to gain fulfillment through perseverance, and are regarded as dogmatic and closed-minded (Toegel & Barsoux, 2012). According to The Big Five Inventory, there were ten sample terms included in Openness. They are:

- Is original, comes up with new ideas
- Is curious about many different things
- Is ingenious, a deep thinker
- Has an active imagination
- Is inventive
- Values artistic, aesthetic experiences
- Prefers work that is routine
- Likes to reflect, play with ideas
- Has few artistic interests
- Is sophisticated in art, music, or literature

According to the inventory scale scoring results, people will have either high score openness or low score openness. High openness people are individuals tend to be pay attention on curious, and willing to try new things all the time. But usually, low openness traits score and high openness traits score will be founded in an specific individual. For example, one people may have high openness on learning new things compare to low openness on learning old things (Toegel & Barsoux, 2012).

### **The Big Five Personality Traits Theory Development in Adulthood**

Some research has shown the evidence effect on a maturation, which always use to indicated people's grew up degree, the levels of agreeableness and conscientiousness typically how to increase with time, compare to extraversion, neuroticism, and openness have tendency to decrease (Srivastava, John, Gosling, & Potter, 2003). In addition, the changes in the Big Five Personality Traits theory depended on the people's recent stage of development, such as their levels of agreeableness and conscientiousness will demonstrate the negative trend during their childhood and individuals' early adolescence before them grows from late adolescence and then into adulthood (Soto, John, Gosling, & Potter, 2011). Therefore, the Big Five Personality Traits identifies people's differences traits and different stage (Roberts & Mroczek, 2008).

Research in related field regarding the personality and progressing ages showed that when individuals enter their elder years, people who have lower IQ will more likely to show a rise in extraversion, while a decline in conscientiousness trait and physical well-being

(Mottus, Johnson, Starr, & Deary, 2012). Research related to the workforce field indicated that personality traits were generally stable among adult workers compared to other workers (Cobb-Clark, 2012).

### **Gender Difference in Big Five Inventory**

Previous research has shown the gender differences on Big Five Inventory (Cavallera, Passerini, & Pepe, 2013). In general, women more tend to have higher Neuroticism, Agreeableness, Extraversion and Openness score reports compare to men consistently report openness (Costa, Terracciano, & McCrae, 2001).

Gender differences in personality traits are largest in following fields: prosperous and healthy. In addition, in gender-egalitarian cultures, gender differences will more obviously. Women in well-developed countries are more likely to be attributed to their personality, rather than attributed to represent gender roles within collectivist and traditional countries (Costa, Terracciano, & McCrae, 2001). For male, the people who lived in well-developed countries were less likely to show neurotic, extraverted, conscientious and agreeable rather than people who came from developing countries (Schmitt, Realo, Voracek, & Allik, 2008).

### **Cultural Difference in Big Five Personality Traits**

The Big Five Personality Traits have been translated into different languages and used in different cultures all over the world (McCrae & Terracciano, 2005). There is one study found that the countries develop degree always influence values individualism, and also correlates with its average extraversion, while people living in cultures which are accepting

of large power structures society have a tendency to score relatedly higher on conscientiousness (McCrae & Terracciano, 2005).

### **Big Five Personality Traits in Education**

Research identifies that people's personality traits usually plays an important role in academic achievement outcome assessment. The conscientiousness and agreeableness traits have a positive relationship with different learning styles, compare to neuroticism always has an inverse relationship with specific learning styles (Komarraju, Karau, Schmeck, & Avdic, 2011). In addition, the intellectual curiousness dimension can have an positive effect on students' academic performance if they were able to put their academic interest in the information processing for effective approach in academic area research (Komarraju, Karau, Schmeck, & Avdic, 2011), which means intellectual curiousness usually help students do better in their academic performance when they have good information processing ability. Research related to gifted programs indicated that students who were in gifted programs more likely had higher scores on openness and lower scores on neuroticism compare with other students (Zeidner & Shani-Zinovich, 2011).

Studies which conducted on college students' group revealed that high score on neurotic tendencies students were less likely to show hopeful tendencies and likely to have negatively associated with well-being (Singh, Singh, & Singh, 2012). The Big Five Personality Traits can be used for value people's stages of life or predicting their educational identity because individuals who are in different stages of life or educational identity always

show specific characters in the Big Five Personality Traits (Klimstra, Luyckx, Germeijs, Meeus, & Goossens, 2012).

### **The Big Five Personality Traits Theory and Learning Styles Theory**

In 1977, Smeck, Ribicj, and Ramanaih defined four types of learning styles. They were synthesis analysis, methodical study, fact retention, and elaborative processing (Komarraju, Karau, Schmeck, & Avdic, 2011). Synthesis analysis shows human being's functions of processing information, forming categories, and organizing them into hierarchies (Komarraju, Karau, Schmeck, & Avdic, 2011). Also, there have different kinds of learning style which show people's academic performance (Komarraju, Karau, Schmeck, & Avdic, 2011). The methodical study represents people's function of methodical behavior when they completing academic assignments, the fact retention represents people's function of focusing on the actual result, and elaborative processing represents people's function of connecting and applying new ideas (Komarraju, Karau, Schmeck, & Avdic, 2011).

In the research related to the Big Five Personality Traits and the learning styles study field, openness always leads to academic success. Conscientiousness and openness traits may be able to predict students' learning styles. For example, individuals who show discipline and determination are more likely to exhibit specific learning styles (Komarraju, Karau, Schmeck, & Avdic, 2011).

In 2011, Komarraju, Karau, Schmeck and Avdic's research indicated that the conscientiousness and agreeableness traits were positively related with all learning styles,

while neuroticism negatively related with all learning styles. In addition, extraversion and openness were positively related to students' elaborative processing, and openness correlated with people's academic achievement (Komarraju, Karau, Schmeck, & Avdic, 2011).

Based on research findings, most of the Big Five personality traits helped researchers predict the educational identity of students (Klimstra, Luyckx, Germeijs, Meeus, & Goossens, 2012). One study suggested that Big Five personality traits combined with learning styles can predict students' academic performance and their academic motivation (De Feyter, Caers, Vigna, & Berings, 2012). For example, high conscientiousness score people has consistently as a stable predictor of good exam performance (Klimstra, Luyckx, Germeijs, Meeus, & Goossens, 2012).

### **The Big Five Personality Traits Theory and Work Performance**

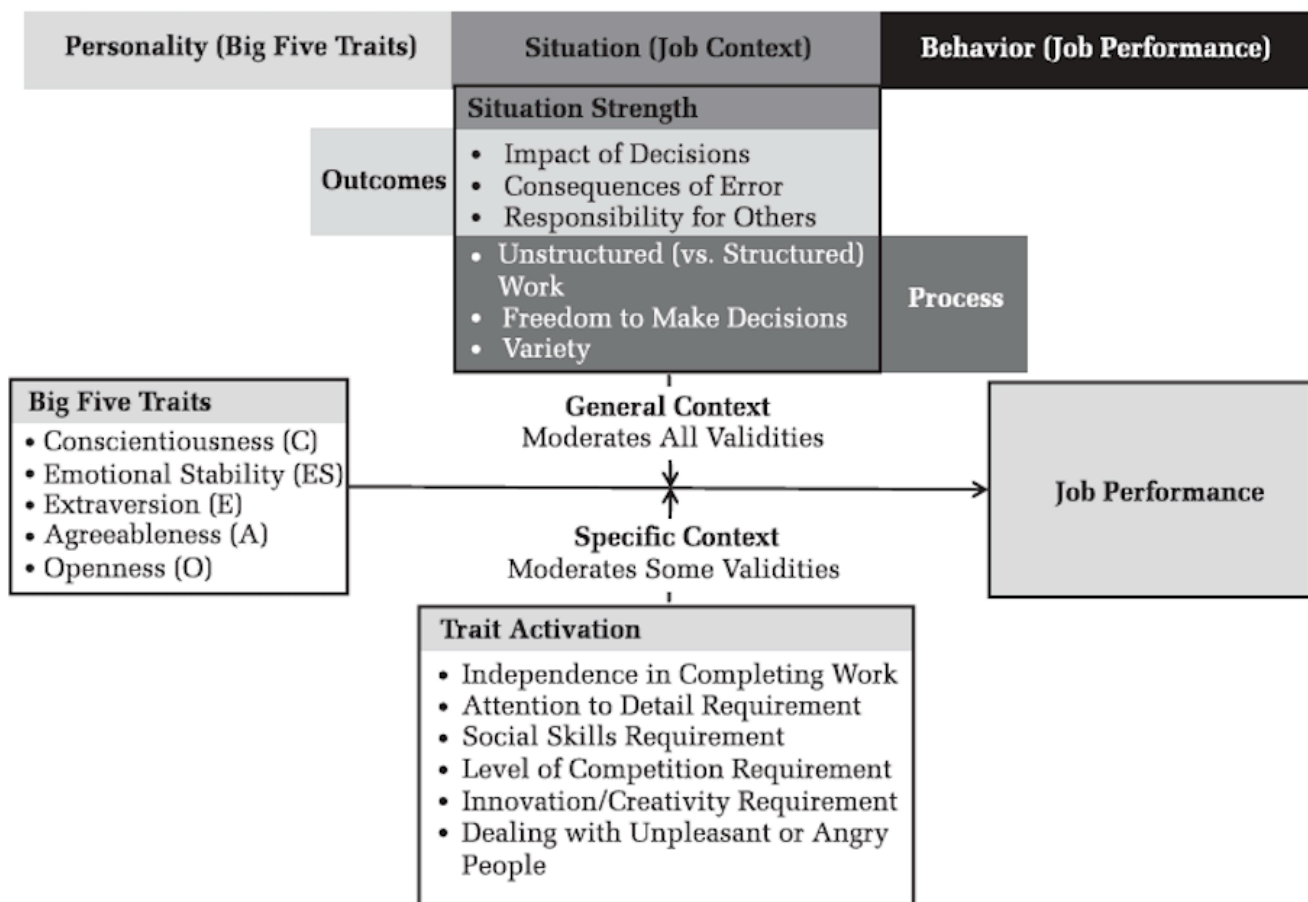
There has been several research and studies focused on the relationship between work performance and conscientiousness and openness personality traits. The research results showed that beneficial ideas related to both personality traits and people's origin of country (Steel, Rinne, & Fairweather, 2012).

There are lots companies and organizations that evaluate individuals based on the Big Five Personality traits (Judge & Cable, 1997). Research has suggested that people who have low neurotic traits score, high levels of openness score, and balanced levels of conscientiousness and extraversion will more likely become a leader in the future (Judge & Cable, 1997). In addition, research indicated that people who have high score in

agreeableness will be less successful financially compared with others in working environment (Judge, Livingston, & Hurst, 2012).

The Personality-Situation theoretical model appears in Figure 3. The band at the top of the figure presents the three different central concepts: personality (the “Big Five” traits), situation (job context), and behavior (job performance). The Big Five Traits and context all influence people’s job performance. This study developed the model using the Big Five Personality Traits and job performance theory (Judge & Zapata, 2015).

### Personality–Situation Interactional Theoretical Model<sup>a</sup>



<sup>a</sup> Impact of Decisions = Impact of Decisions on Coworkers/Results.  
 Responsibility for Others = Responsibility for Health/Safety of Others.

Figure 2. Big Five Personality Traits and Job Performance (Judge & Zapata, 2015)

## **The Big Five Personality Traits' Predictive Power**

One study indicated that the personality traits may be use to strong predictors of people's divorce and job performance (Robert, Kuuncel, Shiner, Caspi, & Goldberg, 2007). People who have high neurotic scores will have more tendency to have disorders traits (Jeronimus, Kotov, Riese, & Ormel, 2016). Both of the social and contextual parameters may play an important role in working performance but their interaction is not yet research in details (Jeronimus, Kotov, Riese, & Ormel, 2016).

## **Cross-Cultural Sensitivity**

### **Culture Theory**

Culture has been defined in variety of ways by different researchers. It is often defined as a pattern of behavior which transmitted by ethnic, religious, racial, or other sociodemographic groups (Jahoda, 2012). Culture is learned and influenced by different variables, including people's family structure, different community environment, immigration status, the geography, multi-religion, educational background, socioeconomic status, and personal experiences (Kodjo, 2009). In addition, culture it is based on social and historical contexts, and it always influences people's views of the world and the view human being express themselves (Arora, Godoy, & Hodgkinson, 2017).

There are multiple terms which are used to describe the cultural process by related research fields researchers: cultural adaptation, cultural grounding, cultural targeting and cultural tailoring (Barrera, Castro, Strycker, & Toobert, 2013; Castro, Barrera, & Holleran-



Steiker, 2010; Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000). Cultural adaptation which also called cultural tailoring, is the process by how to modified one program as appropriate as the target audience, and preserving the program's original value and core components (Barrera, Castro, Strycker, & Toobert, 2013). Some researchers have argued that culturally adapting is one strategy for make engagement maxing among minority families (Bernal, 2006; Bernal, Jiménez-Chafey, & Domenech Rodríguez 2009; Lau, 2006; Parra-Cardona, Domenech Rodriguez, Forgatch, Sullivan, Bybee, Holtrop, & Bernal, 2012). The cultural adaptation is defined as one systematic modifications process to let people consider language and culture different which is compatible with family's cultural patterns, meanings, and values (Bernal Jimenez-Chafey, & Domenech Rodriguez, 2009). Some scholars have indicated that the cultural adaptations may be beneficial when data-based evidence supports people's need to address a distinct set of risk and resilience other factors which contribute to disruptive behavior among the minority group, and people's need to enhance the social validity of the intervention for minority families (Butler & Titus, 2015., Lau, 2006).

Wasson (2002) indicated that the national initiatives reform challenge the schools, research institutions, and universities to be the place to learning for all students (Wasson & Jackson, 2002). The increasing complexity and diversity of U.S. society has enhanced and make the challenge more complicated. In addition, there has been an increase of one million English-language learners during the past 10 years, and these learners now comprise 5.5 percent of the total school-aged population in the United States (Clair & Adger, 1999). That

means one in five children enrolled nationally will speak a language other than English (Clair & Adger, 1999). The number of English language learners will continue to grow rapidly but along with the increasing diversification of the U.S. population, and resulting from the immigration rates, aging trends, and higher birth rates for Asian and Latino cultural groups (Kagan & Garcia, 1991; Phillips & Cabrera, 1996). This group of individuals entered the United States' culture at different ages and stages of development, and they will represent a diversity of languages, working culturally and living environment.

### **Cross-Cultural Research Theory**

“Multiculturalism as the culmination of this culturally sensitive stance, has been identified as a fourth force” (Pedersen, 1991 p.4) and it following the previous psychodynamic, humanistic movements and behavioral in education academic settings (Sullivan & Cottone, 2010). Beyond 1960s and 1970s when people from various places experienced the world in diversity and different ways, culturally sensitive has become one benefit and specific view in research field and other different fields, particularly the cultural anthropology, sociology, and intercultural communications study fields (Geertz, 1973; Hall, 1976).

Cross-cultural research provides different opportunities for people to gain more awareness and insight into how and why cultures and people are differ (Oyserman, Coon, & Kimmelmeier, 2002). Also, research which involving different cultures can provide a better understanding of the cultural impact on human being's value, beliefs, and behaviors. Greater

sensitivity to these differences will be an important step forward in increasing contextual understanding of different cultural groups (Pedersen, Draguns, Lonner, & Trimble, 2015; Sue & Sue, 2012).

In addition, cross-cultural research expresses the sensitivity of how language and culture have interaction. Recognizing that language and culture are essential factors in human being society to understand different people groups will force researchers pay more attention on getting the research conclusions in related fields.

### **Cultural Sensitivity Theory**

Cultural sensitivity is awareness the cultural differences and similarities between human beings exist without assigning people better or worse, right or wrong, value-positive or negative (Bennett, 1998). It simply means that individuals can realize that their culture is no better or well-developed than any other culture. Bennett also indicated that cultural sensitivity implies both the groups' understand and respect each other's people characteristics.

Bennett (1998) developed a framework to understand people's various stages of cultural sensitivity which a person may experience during life. He argues that as people become more and more culturally sensitive, they will more likely to process from having an ethnocentric orientation to a more ethno relative worldview. In his opinion, the more ethnocentric orientations can be seen as the way of avoiding cultural differences against with other culture, or by minimizing its own importance. The more ethno relative worldviews are

ways of seeking people's cultural difference, either by accepting its' importance, and integrating the whole concept into identity definition (Bennett, 1998).

Some researchers regard the terms cultural sensitivity, cross-cultural expertise, cross-cultural effectiveness, culturally skilled, cross-cultural competence cultural responsiveness, cultural awareness, and as the same meaning (Whaley, 2008). However, these terms often appear in the multicultural literature as though they were always regard as synonymous (Ridley, Mendoza, Kanitz, Angermeier, & Zenk, 1994). Actually, some of these terms though seem highly related, but not all of them are the totally same. "Although scholars may excuse inattention to language precision during the initial stages of theory building, continual inattention acts as a hindrance to the communication of ideas, the formulation of testable hypotheses, and the advancement of knowledge" (Ridley, Mendoza, Kanitz, Angermeier, & Zenk, 1994 p.125).

Cultural sensitivity was selected because several evidence suggests that it is the most popular term to describe this conception (Betancourt, Green, Carrillo, & Ananeh-Firempong, 2016; Lopez, 1997; Lopez, Grover, Holland, Johnson, Kain, Kanel, & Rhyne, 1989; Ridley, Baker, & Hill, 2001). Brown (2005) indicated that especially in higher education programs, cross-cultural sensitivity of students and teachers was significantly influenced by the programs design quality, and practical quantity (Rubino, 1994).

## **Cross-Cultural Sensitivity Theory**

Cross cultural sensitivity is a knowledge, acceptance and awareness of other cultures (Loo & Shiomi, 1999). Support of cultural sensitivity is based on people's ideological and practical considerations. Cultural sensitivity was considered as an essential value in the modern world by the United Nations (Loo & Shiomi, 1999). Cross-cultural sensitivity can impact the operating income of corporations which seeking to expand their activities to foreign markets. In addition, it can increase the security of travelers because of the lacking awareness of foreign cultures can have adverse legal consequences in insecurity society environment. Cross-cultural sensitivity can have positive effects in both of the academia and the related training in health care providers which can improve the satisfaction and health outcomes of patients from different minority groups all over the world (Loo & Shiomi, 1999). Many approaches have promoted the Cross-Cultural Sensitivity (Loo & Shiomi, 1999). In these approaches, Cross-Cultural Communications Training and the Comprehensive Cross-Cultural Training Program are the most effective practices practicing attempts (Brislin, Landis, & Brandt, 1983). The Inventory of Cross Cultural Sensitivity (ICCS) is one of the approaches which is a self-report inventory.

### **The Inventory of Cross Cultural Sensitivity (ICCS)**

The ICCS (Cushner, 1986) is a 32-item self-report inventory which uses a 7-point Likert scale from strongly agree to strongly disagree to identify five major aspects of Cross-Cultural Sensitivity. The five major aspects are Cultural Integration, Behavioral Response,

Intellectual Integration, Attitudes Toward Others, and Empathy. Previous tested reliability of the Inventory of Cross Cultural Sensitivity was typically ranged from 0.85 to 0.77 (Loo & Shiomi, 1999).

### **Cultural Integration**

Cultural Integration reflects people's willingness to integrate with other cultures (Cushner, 1986). In this section, it includes ten items. They are Q1) I speak only one language. Q6) I cannot eat with chopsticks. Q11) I have never lived outside my own culture for any great length of time. Q12) I have foreigners over to my home on a regular basis. Q17) I listen to music from another culture on a regular basis. Q18) I decorate my home or room with artifacts from other countries. Q23) I dislike eating foods from other cultures. Q24) I think about living within another culture in the future. Q29) I read more national news than international news in the daily newspaper. Q32) I eat ethnic foods at least twice a week.

### **Behavioral Response**

Behavioral Response taps people's perception of one's behavior towards others (Cushner, 1986). In this section, it includes six items. They are Q2) The way other people express themselves is very interesting to me. Q7) I avoid people who are different from me. Q13) It makes me nervous to talk about people who are different than me. Q19) I feel uncomfortable when in a crowd of people. Q25) Moving into another culture would be easy. Q30) Crowds of foreigners frighten me.

### **Intellectual Interaction**

Intellectual Interaction reflects people's intellectual orientation toward interactions with other cultures (Cushner, 1986). In this section, it includes six items. They are Q3) I enjoy being with people from other cultures. Q8) It is better that people from other cultures avoid one another. Q14) I enjoy studying about people from other cultures. Q20) The very existence of humanity depends upon our knowledge about other people. Q26) I like to discuss issues with people from other cultures. Q31) When something newsworthy happens I seek out someone from that part of the world to discuss the issue with.

### **Attitudes Toward Others**

Attitudes Toward Others taps people's attitudes towards people from other cultures (Cushner, 1986). In this section, it includes five items. They are Q4) Foreign influence in our country threatens our national identity. Q9) Culturally mixed marriages are wrong. Q15) People from other cultures do things differently because they do not know any other way. Q21) Residential neighborhoods should be culturally separated. Q27) There should be tighter controls on the number of immigrants allowed into my country.

### **Empathy**

Empathy reflects people's ability to empathize with people from other cultures (Cushner, 1986). In this section, it includes five items. They are Q5) Others' feelings rarely influence decisions I make. Q10) I think people are basically alike. Q16) There is usually

more than one good way to get things done. Q22) I have many friends. Q28) The more I know about people, the more I dislike them.

From each scale, scores are calculated individually, and then summed to a total score. The higher scores indicate people have greater cross cultural sensitivity (Shiomi & Loo, 1999). This inventory was developed as a self-assessment survey. Cushner (1986) provides a rating guide based upon the participants used in his study. Table 2 shows the rating levels, which indicate low, average, and high cross-cultural sensitivity (Shiomi & Loo, 1999).

Table 2

*Guide of determining levels of Cross-Cultural Sensitivity on the ICCS*

**Guide for determining levels of cross-cultural sensitivity on the ICCS**

<b>ICCS scales</b>	<b>Low sensitivity</b>	<b>Average sensitivity</b>	<b>High sensitivity</b>
<b>Cultural integration</b>	10-30	31-50	51-70
<b>Behavioural response</b>	6-15	16-30	31-42
<b>Intellectual integration</b>	6-15	16-30	31-42
<b>Attitudes toward others</b>	5-14	15-24	25-35
<b>Empathy</b>	5-14	15-24	25-35
<b>Total score</b>	32-95	96-160	161-224

There have lots evidence proven that the ICCS is useful in helping participants discover and critically examine their own views. This survey can occur in stimulation group discussions on cross-cultural issues from organizational and management perspectives. In addition, it is effective in encouraging people’s attitude and behavioral change toward greater cross-cultural sensitivity while human beings recognizing that such change is difficult (Loo & Shiomi, 1999)



Pruegger (1993) indicated the programs designed will enhance multicultural understanding among majority group members which will beginning to appear in a number of industrial and related educational contexts. However, assessment of these emerging management and teaching tools is impaired by the lack of effective measures which allow evaluation of people's attitudes and values toward other cultures (Pruegger & Rogers, 1993). Using instruments to measure people's cross-cultural sensitivity should be an important ingredient to develop society multicultural understanding.

### **Summary**

This chapter has briefly reviewed theories of Big Five Personal Traits and Cross-Cultural Sensitivity.

The most widely accepted dimensional model of human personality is the Big Five Model, which describes the individual differences along five different broad dimensions: extraversion, agreeableness, conscientiousness, neuroticism and openness (Digman, 1990; John, Naumann, & Soto, 2008; McCrae & John, 1992). In the 1980s, Lewis Goldberg started his study which was named "the Big Five Personality Traits" (Goldberg, 1981). Later, the Big Five Personality Traits was improved by Costa and McCrae, who developed the NEO Five-Factor Inventory (Costa & McCrae, 1989) later. Previous tested reliability of the Big Five Personality Traits was typically ranged from 0.79 to 0.88 (Hee, 2014).

Extraversion dimensions describe people's interpersonal traits: extraversion or introversion. These two traits indicated people's preference of interacting with other people

or being alone by themselves. People who have this trait will have more tendency to show energy, assertiveness, sociability, positive emotions, and willing to seek stimulation in the company of others, and more talkativeness (Toegel & Barsoux, 2012). Agreeableness is a tendency to cooperative with other people rather than suspicious and antagonistic towards others (Toegel & Barsoux, 2012). Conscientiousness can represent personality traits that include people's tendency to being organized and dependable, aim for achievement, and prefer planned and make schedule rather than spontaneous behavior (Toegel & Barsoux, 2012). Neurotic is a tendency for people to experience unpleasant emotions easily and well, such as anger, anxiety, vulnerability, and depression (Toegel, & Barsoux, 2012). Neurotic people are less susceptible to others' emotions, as well as they were more likely to better equipped with working environments which require frequently dealing with unpleasant or angry individuals. Openness is a personality traits that refers to people's ability of individuals performing well in occupations requiring independence (Judge, & Zapata, 2015). Openness reflects individuals' degree of intellectual curiosity and creativity.

Cross cultural sensitivity is a knowledge, acceptance, and awareness of other cultures (Loo & Shiomi, 1999). Cushner (1986) created the Cross-Cultural Sensitivity Inventory and it is a 32-item self-report inventory which uses a 7-point Likert scale from strongly agree to strongly disagree identify five major aspects of Cross-Cultural Sensitivity. The five major aspects are Cultural Integration, Behavioral Response, Intellectual Integration, Attitudes Toward Others, and Empathy.

Cultural Integration reflects person's willingness to integrate with other cultures.

Behavioral Response refers to individual perception of their behavior towards others.

Intellectual Interaction reflects people's intellectual orientation toward interactions with other

cultures. Attitudes Toward Others taps individuals' attitudes towards people from other

cultures. Empathy reflects people's ability to empathize with people from other cultures

(Cushner, 1986). The Inventory of Cross Cultural Sensitivity (ICCS) is a self-report

inventory that measures people's cultural sensitivity dimensions. Previous tested reliability of

the Inventory of Cross Cultural Sensitivity was typically ranged from 0.85 to 0.77 (Loo &

Shiomi, 1999). After this review of the literature, Chapter III will demonstrate the methods of

this study in detail.

## CHAPTER III: METHODS

### **Overview**

This study included an analysis of data gathered from self-report questionnaires, which were voluntarily completed by students who were enrolled in an international accelerator program at a large U.S. southeastern research institution during the 2017 fall semester. The questionnaires chosen to collect data for this research were the Big Five Personality (BFI) traits and Cross-Cultural sensitivity instruments.

This chapter is comprised of six sections. First, the problem statement, purpose of the study, and research questions are described. Secondly, a description of the participants and related Instruments are provided. Thirdly, the data collection procedures and data analysis procedures are described. In the end, there is a Summary.

### **Purpose of the Study**

The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions. This study included Chinese students as this group is the largest international student population in higher education international accelerator program institutions in the United States. Participants were enrolled in a public four-year southeastern university and were from different majors and schools in this university. All had participated in related intensive English learning programs.

## **Research Questions**

The following research questions were used in this study:

1. What are the personality traits of Chinese international students?
2. What are the cross-cultural sensitivity dimensions of Chinese international students?
3. What is the relationship between demographics and personality traits?
4. What is the relationship between demographics and cross-cultural sensitivity dimensions?
5. What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?

## **Participants**

This study explored students' Personality Traits and Cross-Cultural Sensitivity dimensions. The participants were students who were enrolled and studying at a large southeastern research institution during the Fall semester in 2017. These students were selected as possible participants because they were international students, were Chinese are age 19 or older, and were enrolled in an international accelerator program.

## **Instruments**

The instruments used in this study consisted of a demographic information section, the Big Five Inventory (BFI), and the Inventory of Cross-Cultural Sensitivity (ICCS) (Appendix A). The demographic information was developed based on learners'

characteristics. It included demographic information such as gender, age, educational background, and major. This section was designed to provide additional information about the participants and help contextualize the results of the Big Five Inventory and the Inventory of Cross-Cultural Sensitivity.

### **The Big Five Personality Traits Inventory**

The Big Five Personality Traits was created by Goldberg (1992) and is widely accepted and a commonly used model of personality in the academic psychology and education related research fields. The Big Five Personality Traits Inventory is a 44-item 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Costa & McCrae, 1992). Previous tested reliability of the Big Five Personality Traits was typically ranged from .79 to .88 (Hee, 2014). The Big Five Personality Traits is an instrument which is based on common language descriptors of personality such as, “I see myself as someone who can be somewhat careless”, “I see myself as someone who is a reliable worker”, “I see myself as someone who is ingenious, a deep thinker.” The instrument is based on word association and suggests different factor dimensions commonly used to describe people’s personality traits (Toegel, 2012). Although personality variables have been identified in the previous study, the Big Five Personality instrument has been effective in explaining people’s personality in the areas of extraversion, neuroticism, agreeableness, conscientiousness and openness to experience (Judge & Bono, 2000). The five dimensions are explained below:

Table 3

*The Big Five Personality Traits Dimensions' Definition*

Personality Traits	Definition	Example Question
Openness	Openness reflects the degree of intellectual curiosity, creativity and a preference for novelty and variety that an individual possesses. High levels of openness can be perceived as unpredictability or lack of focus.	I see myself as someone who is original, comes up with new ideas
Conscientiousness	A tendency to be organized and dependable. High levels of conscientiousness is often perceived as stubbornness and obsession.	I see myself as someone who is a reliable worker
Extraversion	It refers to positive emotions. High levels of extraversion is described as attention-seeking, and domineering.	I see myself as someone who is talkative
Agreeableness	It is a measure of people's trusting and helpful nature. High levels of agreeableness is often naive and submissive.	I see myself as someone who is helpful and unselfish with others
Neuroticism	The tendency to describe the degree of emotional stability and impulse control.	I see myself as someone who is depressed, blue

The Big Five inventory have been translated and used in a variety of languages and cultures all over the world. Some have studied the relationships between personal traits and cultural differences and found they have interaction in some degree (McCrae & Terracciano, 2005)

**Cross-Cultural Sensitivity Inventory**

Cross cultural sensitivity is the knowledge, acceptance, and awareness of other cultures. Support of cultural sensitivity is based on both of the ideological and practical

considerations. Many approaches have promoted Cross-Cultural Sensitivity (Loo & Shiomi, 1999). Cushner (1986) created The Inventory of Cross-Cultural Sensitivity which is a 32-item self-report inventory that uses a 7-point Likert scale from strongly agree to strongly disagree to identify five major aspects of Cross-Cultural Sensitivity (Cushner, 1986). The five major aspects are Cultural Integration, Behavioral Response, Intellectual Integration, Attitudes Toward Others, and Empathy.

The Cross-Cultural Sensitivity Inventory is an instrument evaluates participant's Cross Cultural Sensitivity regarding their cultural adaptation such as, "It makes me nervous to talk about people who are different than me", "The way other people express themselves is very interesting to me.", "The very existence of humanity depends upon our knowledge about other people." In order to maintain consistency with the Big Five Personality Traits Inventory, the Cross-Cultural Sensitivity Inventory was modified from a 7-point Likert scale to 5-point Likert scale. In this study, the Cross-Cultural Sensitivity Inventory combined 2 and 3 to one scale called "Somewhat disagree". In addition, 5 and 6 were combined to one scale called "Somewhat agree". Cronbach Coefficient Alpha test can show the results for reliability. Previous tested reliability of the Inventory of Cross Cultural Sensitivity was typically ranged from .85 to .77 (Loo & Shiomi, 1999). The values for the Cronbach's Alpha for cultural integration, behavioral scale, intellectual interaction, attitude toward others, and empathy scale in this study were .800, .768, .771, .816, .610. Therefore, the revised inventory has acceptable reliability.



## **Data Collection Procedures**

Permission to conduct this research was granted by the IRB office (Appendix B).

The researcher first contacted the head director and students' service director of the international accelerator program to receive permission to conduct this study with their students. After obtaining permission from them, the researcher asked the teachers to send email to students announced the survey activity before class. After getting students' permission, researcher was get teacher's assistant to sending the survey link to the students in their class. After distribute the surveys to students, researcher get the data responses.

With the assistance from the international accelerator program, 150 students completed the surveys in the Fall semester of 2017 of which 128 respondents were usable, which was an 85.3% response rate. The students in this program need to learn English during their academic learning. In addition, there have total number of 1243 Chinese international students in this research institution, and 442 of the Chinese international students are female, and 801 of Chinese international students are male. After pass the English test which designed by international accelerator program office, students can move to higher level of academic learning classroom. At beginning of the data collection process, participants were informed of the purpose of the research and the expected time to complete the surveys. It was also noted that their participation in this study was voluntary. They were also informed that no foreseeable risks were associated with this study. In addition, participants were requested to answer in terms of how well the statement described themselves according to their

experience in a course in their major that they recently took or were taking. Then they were told that there were no right or wrong answers for each item. Furthermore, participants were informed that all of the personal information, answers, and responses collected from them would be kept confidential.

### **Data Analysis Procedures**

Data was analyzed using the SPSS-MAC 24.0. The survey results were examined for reliability and descriptive and inferential statistics were used to analyze the data. Analysis methods were selected and employed based on each research question. Descriptive statistics were used to explore the personality traits of Chinese international students and the Cross-Cultural Adaptability styles of Chinese international students. A Factorial MANOVA was applied to investigate the relationship between the demographics and Big Five Traits inventory. A Factorial MANOVA also was used to explore the relationship between the demographics and Cross-Cultural Adaptability styles. At last, multiple regression analysis was conducted to investigate the relationship between big five personality traits and cross-cultural adaptability.

### **Summary**

This chapter provided a review about the methods that were used to investigate personality traits and cross-cultural adaptation. The participants in this study were international Chinese students enrolled in a large U.S southeastern research institution during the Fall semester in 2017. The instruments that were used for data collection were the Big

Five Personality Traits and Cross-Cultural Inventories. Descriptive statistics, Factorial MANOVA, and multiple regression analyzes were used to analyze the quantitative data. Findings and results will be presented and addressed based on the different research questions in the following chapter.

## CHAPTER IV: FINDINGS

### **Overview**

In this chapter, demographic data, results, and findings from data analysis will be presented. The results and findings for each research question are described along with the multivariate analysis in tables and figures.

### **Purpose of the Study**

The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions. This study included Chinese students as this group is the largest international student population in higher education international accelerator program institutions in the United States. Participants were enrolled in a public four-year southeastern university and were from different majors and schools in this university. All had participated in related intensive English learning programs.

### **Research Questions**

The following research questions were used in this study:

1. What are the personality traits of Chinese international students?
2. What are the cross-cultural sensitivity dimensions of Chinese international students?
3. What is the relationship between demographics and personality traits?

4. What is the relationship between demographics and cross-cultural sensitivity dimensions?

5. What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?

### **Demographic Results**

A total number of 150 students participated in the study. Among the total replies, 128 responses were usable (usable rate equals to 85.3%) and were included in the analysis. Table 1 shows the frequency distribution of the 128 survey participants by each demographic group; however, some participants did not identify their demographic information.

Among the valid respondents, 85 were 17-20 years of age (66.4%), 24 were 21-24 years' of age (18.8%), and 2 were 25-26 years' old participants (1.6%). In terms of gender, 79 were male participants (61.7%), and 32 were female participants (25%). Additionally, 48 participants have been stayed in the U.S. for 0-3 month (37.5%), 13 participants have lived in the U.S. for 4-6 months (10.2%), 43 participants have been in the U.S. for 7-12 months (33.6%), and 7 participants have lived in the U.S. for over 13 months (5.5%). In terms of which degree they are seeking, 84 participants were seeking a Bachelor Degree (65.6%), 18 participants were a seeking Master's Degree (14.1%), and 6 participants were seeking other degrees (4.7%). The participants who fill age range 25-99, have over 80% missing answers. So those data are deleted.

Table 4

*Demographic Characteristics of Participants*

Characteristics	<i>N</i>	Percent
Age		
17-20	85	66.4%
21-24	24	18.8%
25-26	2	1.6%
Gender		
Male	79	61.7%
Female	32	25.0%
Length of Time in the U.S.		
0-3 Months	48	37.5%
4-6 Months	13	10.2%
7-12 Months	43	33.6%
over 13 Months	7	5.5%
Degree Seeking		
Bachelor's Degree	84	65.6%
Master's Degree	18	14.1%
Other	6	4.7%

---

*N*=128

## **Reliability**

Using the Cronbach Coefficient Alpha test, the results for the Big Five Inventory and Inventory of Cross-Cultural Sensitivity in this study are presented in Table 5. A value of .70 or higher was considered evidence of reliability, a value between 0.6 and 0.7 is acceptable, a value between 0.5 and 0.6 is considered poor reliability, while a value that is below 0.5 is unacceptable (Becker, 2000). The values of Cronbach's Alpha in this study for extraversion, agreeableness, conscientiousness, neuroticism, and openness were .832, .770, .825, .811, .886, respectively. The values for the Cronbach's Alpha in this study for cultural integration, behavioral scale, intellectual interaction, attitude toward others, and empathy scale were .800, .768, .771, .816, .610. So these instruments are reliable instruments.

Table 5

*Reliability of the Big Five Inventory and Inventory of Cross-Cultural Sensitivity*

	Items	Cronbach's Alpha
<b>Big Five Inventory</b>		
Extraversion	8	.832
Agreeableness	9	.770
Conscientiousness	8	.825
Neuroticism	8	.811
Openness	10	.886
<b>Inventory of Cross-Cultural Sensitivity</b>		
Cultural Integration	10	.800
Behavioral Scale	6	.768
Intellectual Interaction	6	.771
Attitude Toward Others	5	.816
Empathy Scale	5	.610

**Discussion of Findings**

Descriptive statistics were used to examine the first two research questions. One-way MANOVA was applied to investigate the following two research questions, and multiple regression analysis was conducted to address the last research question.

**Research Question 1: What are the personality traits of Chinese international students?**

According to the Big Five Personality Traits, there are five factors commonly used to describe personality (Toegel, 2012). Table 5 shows the descriptive statistics results for the five factors of the participants in this study, and the ranges were from 1 to 5. The means for



extraversion, agreeableness, conscientiousness, neuroticism, and openness were 2.95, 3.24, 3.07, 2.96, and 3.19. The minimums and maximums for extraversion were 1.67 to 3.88; for agreeableness were 2.00 to 4.60; for conscientiousness were 1.00 to 4.25; for neuroticism were 1.80 to 3.88; for openness were 1.00 to 4.50. Results indicated that the participants had a higher score in agreeableness, and lower scores in extraversion.

The instrument used a 5-point Likert scale ranges from 1 (Strongly disagree) to 5 (Strongly agree). Therefore, the average personality traits score of Chinese international students showed that they tended to neither agree nor disagree in Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness in the Big Five Inventory.

Table 6

*Personality Traits of Participants*

	Minimum	Maximum	Mean	Std. Deviation
<b>Big Five Inventory</b>				
Extraversion	1.67	3.88	2.9511	.43138
Agreeableness	2.00	4.60	3.2434	.53058
Conscientiousness	1.00	4.25	3.0743	.44969
Neuroticism	1.80	3.88	2.9595	.38664
Openness	1.00	4.50	3.1900	.53838

**Research Question 2: What are the cross-cultural sensitivity dimensions of Chinese international students?**

The Cross-Cultural Sensitivity instrument includes five dimensions. Table 6 shows the descriptive statistics results for the dimensions. The means for Cultural Integration, Behavioral Scale, Intellectual Interaction, Attitude Toward Others, and Empathy Scale were 3.15, 2.95, 3.36, 2.97, and 3.25. The minimums and maximums for Cultural Integration were 2.50 to 4.10; for Behavioral Scale were 1.83 to 4.00; for Intellectual Interaction were 1.67 to 4.67; for Attitude Toward Others were 1.00 to 5.00; for Empathy Scale were 2.20 to 4.60. Results indicated that Chinese international students had a higher score in Intellectual Interaction, and lower scores in the Behavioral Scale.

The instrument used a 5-point Likert scale ranges from 1 (Strongly disagree) to 5 (Strongly agree). Therefore, the Cross-Cultural Sensitivity dimensions of Chinese international students revealed that the students tended to Neither agree nor disagree in Cultural Integration, Behavioral Scale, Intellectual Interaction, Attitude Toward Others, and Empathy Scale in terms of the Cross-Cultural Sensitivity dimensions.

Table 7

*Cross-Cultural Sensitivity of Participants*

	Minimum	Maximum	Mean	Std. Deviation
Inventory of Cross-Cultural Sensitivity Dimensions				
Cultural Integration	2.50	4.10	3.1467	.35557
Behavioral Scale	1.83	4.00	2.9471	.42003
Intellectual Interaction	1.67	4.67	3.3617	.57154
Attitude Toward Others	1.00	5.00	2.9678	.79116
Empathy Scale	2.20	4.60	3.2454	.45766

**Research Question 3: What is the relationship between demographics and personality traits?**

Factorial MANOVA was conducted to answer the research question. Box's M test ( $F_{(45, 1420.046)} = 2.159, p < .001$ ) indicated that covariance matrices of the dependent variables were not equal across groups. Therefore, a Pillai's Trace statistic was used to assess the relationship. According to Pillai's Trace statistic (Pillai's Trace = .159,  $F_{(45, 1420.046)} = 2.377, P = .049$ , Gender had a significant influence on personality traits with a large effect size (partial  $\eta^2 = .159$ ). Following table indicate the Big Five Personality Traits Descriptive Statistics information.

Table 8

*The Big Five Personality Traits Descriptive Statistics: Extraversion*

		Mean	Std. Deviation
Age	17-20	2.99	0.433
	21-24	2.85	0.413
Gender	Male	2.98	0.439
	Female	3.01	0.429
Length of Stay in the U.S.	0-3 Month	2.97	0.463
	4-6 Month	3.21	0.144
	7-12 Month	3.02	0.411
	Above 13 Month	2.38	0.177
	Bachelor		
Degree Seeking	Degree	2.95	0.432
	Master Degree	2.92	0.434

Table 9

*The Big Five Personality Traits Descriptive Statistics: Agreeableness*

		Mean	Std. Deviation
Age	17-20	3.27	0.534
	21-24	3.26	0.519
Gender	Male	3.29	0.581
	Female	3.25	0.436
Length of Stay in the U.S.	0-3 Month	3.37	0.712
	4-6 Month	3.04	0.169
	7-12 Month	3.23	0.360
	Above 13 Month	3.00	0.314
	Bachelor		
Degree Seeking	Degree	3.26	0.523
	Master Degree	3.30	0.632

Table 10

*The Big Five Personality Traits Descriptive Statistics: Conscientiousness*

		Mean	Std. Deviation
Age	17-20	3.12	0.495
	21-24	2.98	0.311
Gender	Male	3.12	0.584
	Female	3.08	0.241
Length of Stay in the U.S.	0-3 Month	3.04	0.575
	4-6 Month	2.93	0.292
	7-12 Month	3.16	0.352
	Above 13 Month	3.05	0.068
	Bachelor		
Degree Seeking	Degree	3.11	0.473
	Master Degree	2.96	0.341

Table 11

*The Big Five Personality Traits Descriptive Statistics: Neuroticism*

		Mean	Std. Deviation
Age	17-20	2.93	0.414
	21-24	3.12	0.269
Gender	Male	2.95	0.403
	Female	2.99	0.356
Length of Stay in the U.S.	0-3 Month	2.94	0.475
	4-6 Month	3.05	0.184
	7-12 Month	3.01	0.304
	Above 13 Month	2.75	0.453
	Bachelor		
Degree Seeking	Degree	2.97	0.381
	Master Degree	2.98	0.389

Table 12

*The Big Five Personality Traits Descriptive Statistics: Openness*

		Mean	Std. Deviation
Age	17-20	3.21	0.550
	21-24	3.24	0.481
Gender	Male	3.24	0.561
	Female	3.14	0.437
Length of Stay in the U.S.	0-3 Month	3.26	0.565
	4-6 Month	3.03	0.389
	7-12 Month	3.29	0.466
	Above 13 Month	2.62	0.589
	Bachelor		
Degree Seeking	Degree	3.27	0.504
	Master Degree	2.94	0.500

Age had no significant influence on personality traits ( $F_{(45, 1420.046)}=0.67, p=.755$ ).

Gender had a significant influence on personality traits ( $F_{(45, 1420.046)}=2.38, p=.049$ ) with a large effect size (partial  $\eta^2=.159$ ), how long have you been in U.S. had no significant influence on personality traits ( $F_{(45, 1420.046)}=1.52, p=.100$ ), and degree seeking had no significant influence on personality traits ( $F_{(45, 1420.046)}=0.77, p=.656$ ).

Table 13

*Multivariate Tests' Results*

Multivariate Tests	$F_{(45, 1420.046)}$	$p$	$\eta^2$
Age	0.67	.755	0.049
Gender	2.38	.049	0.159
How long have you been in U.S.	1.52	.100	0.105
Degree seeking	0.77	.656	0.057

Table 14 shows the tests of between-subjects effects. Since the gender was significant, the test of Between-subjects was conducted and revealed that the openness personality trait was different between males and females ( $F_{(1,96)}=4.79, p=.032$ , partial  $\eta^2=0.067$ ) and with a large effect size.

Table 14

*Tests of Between-Subjects Effects*

Tests of Between-Subjects Effects	$F_{(1,96)}$	$p$	$\eta^2$
Gender			
Extraversion	0.210	.648	0.003
Agreeableness	1.187	.280	0.017
Conscientiousness	1.662	.202	0.024
Neuroticism	0.252	.617	0.004
Openness	4.794	.032	0.067

Based on the Tests Between-subjects finding, the openness trait was further examined. According to the results, Male's openness mean was 3.23, Female's openness

mean was 3.15. The scale is 1 to 5. Males have higher scores on the openness factor compared to females.

Table 15

*Personality Trait: Openness*

	Total Mean	Std. Deviation
Openness		
Male	3.23	0.594
Female	3.15	0.457

Table 16 shows the Multivariate Tests Results. Age\*Gender's not have significant influence on personality traits ( $F_{(45, 1420.046)}=0.604, p=.0697, \text{partial } \eta^2=0.046$ ) and with a medium effect size, Age\*How long have you been in the U.S. not have significant influence on personality traits 's ( $F_{(45, 1420.046)}=0.562, p=.936, \text{partial } \eta^2=0.041$ ) and with a medium effect size, Age\*Degree Seeking have significant influence on personality traits ( $F_{(45, 1420.046)}=2.391, p=.048, \text{partial } \eta^2=0.160$ ) and with a large effect size, Gender\*How long have you been in the U.S. not have significant influence on personality traits ( $F_{(45, 1420.046)}=0.473, p=.952, \text{partial } \eta^2=0.035$ ) and with a large effect size, Gender\*Degree Seeking not have significant influence on personality traits ( $F_{(45, 1420.046)}=0.931, p=.058, \text{partial } \eta^2=0.068$ ) and with a large effect size, How long have you been in the U.S.\*Degree Seeking not have significant influence on personality traits ( $F_{(45, 1420.046)}=1.467, p=.072, \text{partial } \eta^2=0.099$ ) and with a large effect size. The results indicated that only the Age and Degree Seeking had an interaction ( $p=.048$ ). Following study were present below.



Table 16

*Multivariate Tests*

Multivariate Tests	$F_{(45, 1420.046)}$	$p$	$\eta^2$
Age * Gender	0.604	.697	0.046
Age * How long have you been in the U.S.	0.562	.936	0.041
Age * Degree Seeking	2.391	.048	0.160
Gender * How long have you been in the U.S.	0.473	.952	0.035
Gender * Degree Seeking	0.931	.058	0.068
How long have you been in the U.S. * Degree Seeking	1.467	.072	0.099

Table 17 shows the results of the follow up Test. When age group between 17-20, Degree Seeking have no significant influence on agreeableness ( $F_{(2,70)}=1.512, p =0.228$ , partial  $\eta^2=0.041$ ) and with a large effect size. When age group between 21-24, Degree Seeking have significant influence on agreeableness ( $F_{(2,70)}=4.968, p =0.037$ , partial  $\eta^2=0.037$ ) and with a large effect size.

Table 17

*Follow up Test Results*

Age	$F_{(2,70)}$	$p$	$\eta^2$
17-20	1.512	0.228	0.041
21-24	4.968	0.037	0.037

Table 18 shows the degree seeking in the descriptive statistics results. The mean for bachelor's degree seeking is 3.38, mean for master's degree seeking is 2.84, The bachelor's degree seeking mean is larger than the master's degree seeking mean, so the students who are seeking a bachelor's have a higher agreeableness score compared with the students who are seeking a master's degree.

Table 18

*Descriptive Statistics: Degree Seeking*

Degree Seeking	Mean	Std. Deviation
Bachelor Degree	3.37	0.532
Master Degree	2.84	0.069
Total	3.25	0.519

**Age and Degree Seeking Interaction Processing**

First, the age groups were divided to see if there were any age grouping similarities, specifically, to check agreeableness traits between individuals who were bachelor's degree seeking and master's degree seeking. The age group 21-24 seeking degree had different agreeableness level. Then, compared with the mean, the results showed that so students who were seeking the bachelor's had higher agreeableness score compared with the students who were seeking the master's degree.

Secondly, the degree seeking and groups were divided, to see if there were any differences between age groups and agreeableness levels. Then we found if people all in the

master degree seeking group, according to different people's age, people's agreeableness are different.

**Research Question 4: What is the relationship between demographics and cross-cultural sensitivity dimensions?**

Factorial MANOVA was conducted to answer the research question and the Cross-Cultural Sensitivity's Box's M test ( $F_{(45, 1511.548)}=2.063, p<.001$ ). The results indicate that covariance matrices of the dependent variables are not equal across groups. Therefore, a Pillai's Trace statistic was used to assess the relationship. According to Pillai's Trace statistic (Pillai's Trace = 0.361,  $F_{(45, 1511.548)} = 2.337, p = .016$ ), Degree Seeking had a significant influence on Cross-Cultural Sensitivity with a large effect size (partial  $\eta^2=.181$ ). Following table indicate the Cross-Cultural Sensitivity Descriptive Statistics information.

Table 19

*The Cross-Cultural Sensitivity Descriptive Statistics: Cultural Integration*

		Mean	Std. Deviation
Age	17-20	3.16	0.354
	21-24	3.12	0.386
Gender	Male	3.13	0.368
	Female	3.20	0.343
Length of Stay in the U.S.	0-3 Month	3.28	0.394
	4-6 Month	2.98	0.241
	7-12 Month	3.10	0.293
	Above 13 Month	3.10	0.579
	Bachelor		
Degree Seeking	Degree	3.15	0.372
	Master Degree	3.15	0.360

Table 20

*The Cross-Cultural Sensitivity Descriptive Statistics: Behavioral Scale*

		Mean	Std. Deviation
Age	17-20	2.94	0.427
	21-24	2.93	0.406
Gender	Male	2.94	0.437
	Female	2.97	0.394
Length of Stay in the U.S.	0-3 Month	3.04	0.487
	4-6 Month	2.90	0.415
	7-12 Month	2.89	0.363
	Above 13 Month	2.93	0.560
	Bachelor		
Degree Seeking	Degree	2.93	0.434
	Master Degree	2.97	0.361

Table 21

*The Cross-Cultural Sensitivity Descriptive Statistics: Intellectual Interaction*

		Mean	Std. Deviation
Age	17-20	3.40	0.578
	21-24	3.37	0.497
Gender	Male	3.35	0.962
	Female	3.41	0.510
Length of Stay in the U.S.	0-3 Month	3.34	0.569
	4-6 Month	3.30	0.351
	7-12 Month	3.39	0.604
	Above 13 Month	3.50	0.913
	Bachelor		
Degree Seeking	Degree	3.41	0.604
	Master Degree	3.28	0.372

Table 22

*The Cross-Cultural Sensitivity Descriptive Statistics: Attitude Toward Others*

		Mean	Std. Deviation
Age	17-20	2.93	0.811
	21-24	2.95	0.701
Gender	Male	3.02	0.819
	Female	2.85	0.753
Length of Stay in the U.S.	0-3 Month	3.29	0.660
	4-6 Month	2.71	0.394
	7-12 Month	2.74	0.854
	Above 13 Month	3.08	1.270
	Bachelor		
Degree Seeking	Degree	2.95	0.809
	Master Degree	2.92	0.798

Table23

*The Cross-Cultural Sensitivity Descriptive Statistics: Empathy Scale*

		Mean	Std. Deviation
Age	17-20	3.27	0.445
	21-24	3.22	0.507
Gender	Male	3.24	0.453
	Female	3.26	0.486
Length of Stay in the U.S.	0-3 Month	3.40	0.493
	4-6 Month	3.26	0.336
	7-12 Month	3.16	0.375
	Above 13 Month	2.80	0.707
	Bachelor		
Degree Seeking	Degree	3.25	0.461
	Master Degree	3.23	0.466

Table 24 provides the multivariate tests results. Age had no significant influence on Cultural Sensitivity ( $F= 1.75, p = .08, \text{partial } \eta^2=0.142$ ) and with a large effect size. Gender had no significant influence on Cultural Sensitivity ( $F=1.14, p =.35, \text{partial } \eta^2=0.098$ ) and with a medium effect size. How long have you been in the U.S. had no significant influence on Cultural Sensitivity ( $F=1.14, p = .32, \text{partial } \eta^2=0.096$ ) and with a medium effect size. Degree Seeking had a significant influence on Cultural Sensitivity ( $F=2.34, p =.02, \text{partial } \eta^2=0.181$ ) and with a large effect size.

Table 24

*Multivariate Tests*

Multivariate Tests	$F_{(45, 1511.548)}$	$p$	$\eta^2$
Age	1.75	.079	0.142
Gender	1.14	.354	0.098
How long have you been in Auburn	1.14	.323	0.096
Degree Seeking	2.34	.016	0.181

Table 25 provides the Tests of Between-Subjects Effects results. Because Degree Seeking was significant, checking the Tests of Between-Subjects Effects table was required. According to the results, none of the factors were significant.

Table 25

*Tests of Between-Subjects Effects*

Tests of Between-Subjects Effects	$F_{(1, 84)}$	$p$	$\eta^2$
Degree Seeking			
Cultural Integration	2.026	.141	0.067
Behavioral Scale	1.370	.263	0.047
Intellectual Interaction	2.921	.062	0.094
Attitude Toward Others	1.250	.294	0.043
Empathy Scale	1.156	.322	0.040

Table 26 shows Multivariate Tests' results. Age\*Gender had no significant influence on Cultural Sensitivity ( $F_{(45, 1511.548)} = 0.433, p = .824, \text{partial } \eta^2 = 0.040$ ) and with a medium effect size, Age\*How long have you been in the U.S. had no significant influence on Cultural Sensitivity ( $F_{(45, 1511.548)} = 0.697, p = .827, \text{partial } \eta^2 = 0.060$ ) and with a medium effect size, Age\*Degree Seeking had no significant influence on Cultural Sensitivity ( $F_{(45, 1511.548)} = 1.725, p = .145, \text{partial } \eta^2 = 0.142$ ) and with a large effect size, Gender\*How long have you been in the U.S. had no significant influence on Cultural Sensitivity ( $F_{(45, 1511.548)} = 1.629, p = .071, \text{partial } \eta^2 = 0.131$ ) and with a large effect size, Gender\*Degree Seeking had no significant influence on Cultural Sensitivity ( $F_{(45, 1511.548)} = 0.447, p = .920, \text{partial } \eta^2 = 0.040$ ) and with a medium effect size, How long have you been in the U.S.\*Degree Seeking had no significant influence on Cultural Sensitivity ( $F_{(45, 1511.548)} = 0.757, p = .795, \text{partial } \eta^2 = 0.063$ ) and with a medium effect size. Therefore, none of the interaction had significant on Cross-Cultural Sensitivity.

Table 26

*Multivariate Tests*

Multivariate Tests	$F_{(45, 1511.548)}$	$p$	$\eta^2$
Age * Gender	0.433	.824	0.040
Age * How long have you been in Auburn	0.697	.827	0.060
Age * Degree Seeking	1.725	.145	0.142
Gender * How long have you been in Auburn	1.629	.071	0.131
Gender * Degree Seeking	0.447	.920	0.040
How long have you been * Degree Seeking	0.757	.795	0.063

**Research Question 5: What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?**

After dummy coding 0 for male, and 1 for female in gender factor, dummy coding 0 for 17-20, and 1 for 21-24 in age factor, all length of stay in the U.S. factor was dummy coded by 0 and 1, dummy coding 0 for Bachelor Degree Seeking students and 1 for Master Degree Seeking students, linear regression analysis showed the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions. Linear Regression with backward was used to conduct this question. Table 20 shows the relationship between students' gender, age, length of stay in



the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions when cultural integration is the dependent variable.

$$\text{Cultural Integration} = (-0.28) * \text{Extraversion} + (0.24) * \text{Openness} + 3.206$$

Cultural integration decreases 0.28 unit when Extraversion increases every unit when other variables stay the same. Cultural integration increases 0.24 unit when Openness increases every unit when other variables stay the same. According to ANOVA test results,  $F_{(2,74)} = 5.614, p = .005$ , so it is a good regression model. 13.2% Cultural integration can be represented by Extraversion and Openness ( $R^2 = 0.132$ ). Coefficient table results shows only Extraversion and Openness can good predict Cultural Integration.

Table 27

*Dependent Variable: Cultural Integration*

Model	Unstandardized		Standardized		
	B	Std. Error	Beta	t	p
Constant	3.206	0.360		8.909	.000
Extraversion	-0.280	0.103	-.0308	-2.729	.008
Openness	0.240	0.091	0.298	2.636	.010

Table 28 shows the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions when Behavioral Scale is the dependent variable.

$$\text{Behavioral Scale} = (0.289) * \text{Extraversion} + (-0.220) * \text{Openness} + 1.946$$

Behavioral Scale increases 0.289 unit when Extraversion increases every unit when other variables stay the same. Cultural integration decreases 0.22 unit when Openness increases every unit when other variables stay the same. According to ANOVA test results,  $F_{(3,73)} = 3.934, p = .012$ , so it is a good regression model. 13.9% Behavioral Scale can be represented by Extraversion and Openness ( $R^2 = 0.139$ ). Coefficient table results shows only Extraversion and Openness can good predict Behavioral Scale.

Table 28

*Dependent Variable: Behavioral Scale*

Model	Unstandardized		Standardized		
	B	Std. Error	Beta	t	p
Constant	1.946	.557		3.491	.001
Extraversion	.289	.118	.277	2.441	.017
Conscientiousness	.273	.138	.217	1.976	.052
Openness	-.216	.112	-.249	-1.926	.058

Table 29 showed the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions when the Intellectual Interaction was the dependent variable.

$$\text{Intellectual Interaction} = (0.27) * \text{Extraversion} + (0.265) * \text{Agreeableness} + (0.559) * \text{Openness} + (0.831) * (0\text{-}3 \text{ Month Length dummy}) + (-0.104)$$

Intellectual Interaction increases 0.27 unit when Extraversion increases every unit when other variables stay the same. Intellectual Interaction increases 0.265 unit when

Agreeableness increases every unit when other variables stay the same. Intellectual Interaction increases 0.559 unit when Openness increases every unit when other variables stay the same. Intellectual Interaction increases 0.831 unit when 0-3 Month Length dummy increases every unit when other variables stay the same. According to ANOVA test results,  $F_{(4,72)} = 14.398, p < .001$ , so it is a good regression model. 44.4% Intellectual Interaction can be represented by Extraversion, Agreeableness, Openness, and 0-3 Month Length dummy ( $R^2 = 0.444$ ). Coefficient table results shows only Extraversion, Agreeableness, Openness, and 0-3 Month Length dummy can good predict Intellectual Interaction.

Table 29

*Dependent Variable: Intellectual Interaction*

Model	Unstandardized		Standardized		
	B	Std. Error	Beta	t	p
Constant	-.104	.509		-.205	.838
Extraversion	.270	.127	.197	2.135	.036
Agreeableness	.265	.109	.229	2.432	.017
Openness	.559	.120	.459	4.671	.000
Time_dummy1	.831	.223	.337	3.725	.000

Table 30 shows the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions when the Attitude Toward Others is the dependent variable.

$$\text{Attitude Toward Others} = (0.549) * \text{Conscientiousness} + (-0.649) * \text{Openness} + (-0.789) * (0\text{-}3 \text{ Month Length dummy}) + (-0.469) * (4\text{-}6 \text{ Month Length dummy}) + (-0.535) * (7\text{-}12 \text{ Month Length dummy}) + 2.572$$

Attitude Toward Others increases 0.549 unit when Conscientiousness increase every unit when other variables stay the same. Attitude Toward Others decreases 0.649 unit when Openness increases every unit when other variables stay the same. Attitude Toward Others decreases 0.789 unit when 0-3 Month Length dummy increase every unit when other variables stay the same. Attitude Toward Others decreases 0.469 unit when 4-6 Month Length dummy increase every unit when other variables stay the same. Attitude Toward Others decreases 0.535 unit when 7-12 Month Length dummy increase every unit when other variables stay the same. According to ANOVA test results,  $F_{(6,70)} = 5.474$ ,  $p < .001$ , so it is a good regression model. 31.9% Attitude Toward Others can be represented by Conscientiousness, Openness, 0-3 Month Length dummy, 4-6 Month Length dummy, and 7-12 Month Length dummy ( $R^2 = 0.319$ ). Coefficient table results shows only Conscientiousness, Openness, 0-3 Month Length dummy, 4-6 Month Length dummy, and 7-12 Month Length dummy can good predict Attitude Toward Others.

Table 30

*Dependent Variable: Attitude Toward Others*

Model	Unstandardized		Standardized		<i>p</i>
	B	Coefficients Std. Error	Beta	t	
Constant	2.572	0.935		2.750	.008
Agreeableness	.321	.184	.202	1.750	.085
Conscientiousness	.549	.233	.241	2.351	.022
Openness	-.649	.186	-.387	-3.482	.001
0-3 Month dummy	-.789	.360	-.233	-2.196	.031
4-6 Month dummy	-.469	.181	-.308	-2.596	.011
7-12 Month dummy	-.535	.237	-.249	-2.256	.027

Table 31 showed the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions when Empathy Scale was the dependent variable.

$$\text{Empathy Scale} = (0.319) * \text{Extraversion} + (0.387) * \text{Agreeableness} + 1.040$$

Empathy Scale increases 0.319 unit when Extraversion increases every unit when other variables stay the same. Empathy Scale increases 0.387 unit when Agreeableness increases every unit when other variables stay the same. According to ANOVA test results,  $F_{(2,74)} = 13.504, p < .001$ , so it is a good regression model. 26.7% Empathy Scale can be represented by Extraversion and Agreeableness ( $R^2 = 0.267$ ). Coefficient table results shows only Extraversion and Agreeableness can good predict Empathy Scale.

Table 31

*Dependent Variable: Empathy Scale*

Model	Unstandardized		Standardized		
	B	Std. Error	Beta	t	p
Constant	1.040	.437		2.382	.020
Extraversion	.319	.115	.279	2.780	.007
Agreeableness	.387	.097	.401	3.996	.000

### Summary

The quantitative data addressed the five research questions of the present study: 1) What are the personality traits of Chinese international students? 2) What are the cross-cultural sensitivity dimensions of Chinese international students? 3) What is the relationship between demographics and personality traits? 4) What is the relationship between demographics and cross-cultural sensitivity dimensions? 5) What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?

For research question 1, results of descriptive statistic indicated that Chinese international students have higher scores in agreeableness and lower scores in extraversion. For research questions 2, results of descriptive statistics indicated that Chinese international students had higher scores in Intellectual Interaction, and lower scores in Behavioral Scale.

For research question 3, results of Factorial MANOVA was applied to investigate the relationship between demographics and personality traits. The results showed males have

more openness traits compared to females. In addition, Age and Degree Seeking had an interaction. The Post Hoc Test results showed that when age group between 21-24, Degree Seeking have significant influence on agreeableness. The students who are seeking a bachelor's have a higher agreeableness score compared with the students who are seeking a master's degree. Master's Degree Seeking had significant influence on Age. At last, in masters for the Degree Seeking group, the 17-20 age group had higher agreeableness scores compare with the 21-24 age group.

For research question 4, the relationship between demographics and Cross-Cultural Sensitivity was researched using a Factorial MANOVA approach. The results showed that none of the factors were significant. In addition, none of the interaction had significant on cross-cultural sensitivity.

For research question 5 linear regression analysis was conducted. Results indicate that only Extraversion and Openness can good predict Cultural Integration, Extraversion and Openness can good predict Behavioral Scale, Extraversion, Agreeableness, Openness, and 0-3 Month Length dummy can good predict Intellectual Interaction, Conscientiousness, Openness, 0-3 Month Length dummy, 4-6 Month Length dummy, and 7-12 Month Length dummy can good predict Attitude Toward Others, and Extraversion and Agreeableness can good predict Empathy Scale.

## CHAPTER V: SUMMARY, CONCLUSIONS, IMPLICATIONS, LIMITATIONS, AND RECOMMENDATIONS

This chapter presents the summary of this study, conclusions based on the data analysis, implications of the findings and results, and recommendations for future research.

### **Purpose of the Study**

The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions. This study included Chinese students as this group is the largest international student population in higher education institutions in the United States (Chow & Bhandari, 2010). Participants were enrolled in a public four-year southeastern university and were from different majors and schools in this university. All had participated in related intensive English learning programs.

### **Research Questions**

The following research questions were used in this study:

1. What are the personality traits of Chinese international students?
2. What are the cross-cultural sensitivity dimensions of Chinese international students?
3. What is the relationship between demographics and personality traits?



4. What is the relationship between demographics and cross-cultural sensitivity dimensions?

5. What is the relationship between students' gender, age, length of stay in the U.S., degree seeking, personality traits, and the cross-cultural sensitivity dimensions?

## **Summary**

### **Study Overview**

Some research has explored immigrant's learning and study experiences in the United States. However, there are limited studies focusing on understanding the condition of cross-cultural sensitivity of international students residing in the United States. Some studies have focused on Chinese immigrants' experience (Allison & Geiger, 1993; Walker, Deng, & Dieser, 2001; Yu & Berryman, 1996). Due to differences in education and life experiences as compared with domestic students, there has been little research focusing on personality traits that may influence international students' cross cultural sensitivity. The purpose of this study was to examine Chinese international students' Personality Traits and Cross-Cultural Sensitivity dimensions.

The most widely accepted dimensional model of human personality is the Big Five Model, which describes individual differences along five different dimensions: extraversion, agreeableness, conscientiousness, neuroticism and openness (Digman, 1990; John, Naumann, & Soto, 2008; McCrae & John, 1992). In the 1980s, Lewis Goldberg started focused a study project which was named Big Five Personality Traits (Goldberg, 1981). In the 1970s, Paul

Costa and Robert McCrae created a new personality inventory based on Goldberg's theory. The new inventory included three factors. They are Neuroticism, Extraversion, and Openness (NEO) (Costa & McCrae, 1976).

Extraversion dimensions describe interpersonal people's traits: extraversion or introversion, which use to indicates people's preference of interacting with others or being alone with themselves. Agreeableness is people's tendency to be compassionate and cooperative with other people rather than suspicious and antagonistic towards others (Toegel & Barsoux, 2012). Conscientiousness can represent people's trait to have tendency be organized and dependable, aim for achievement, and prefer planned and making schedule rather than spontaneous behavior (Toegel & Barsoux, 2012). Neuroticism is individuals' tendency to experience unpleasant emotions easily and well, such as anger, anxiety, vulnerability, and depression (Toegel, & Barsoux, 2012). Openness is a personality trait that should help individuals perform well in occupations requiring independence in society (Judge, & Zapata, 2015).

Cross cultural sensitivity is the knowledge, acceptance, and awareness of other cultures (Loo & Shiomi, 1999). Cushner created the Cross-Cultural Sensitivity Inventory at 1986. The Cushner's Cross-Cultural Sensitivity Inventory include five dimensions. They are Cultural Integration, Behavioral Response, Intellectual Integration, Attitudes Toward Others, and Empathy.

Cultural Integration reflects people's willingness to integrate with other cultures (Cushner, 1986). Behavioral Response taps individuals' perception of their behavior towards others. Intellectual Interaction reflects people's intellectual orientation toward interactions with other cultures. Attitudes Toward Others taps individuals' attitudes towards people from other cultures. Empathy reflects person ability to empathize with people from other cultures (Cushner, 1986). Cross-cultural sensitivity can have positive effects in both of the academia and related training. The Inventory of Cross Cultural Sensitivity (ICCS) is one of the approach which is the use of a self-report inventory.

With the assistance from an international accelerator program, 150 students completed the survey in the Fall semester of 2017 of which 128 respondents were usable, which was 85.3% response rate.

Data was analyzed using the SPSS-MAC 24.0. Descriptive statistics were used to explore the personality traits of Chinese international students and the Cross-Cultural Adaptability styles of Chinese international students. A Factorial MANOVA was applied to investigate the relationship between the demographics and Big Five Traits inventory. A Factorial MANOVA also was used to explore the relationship between the demographics and Cross-Cultural Adaptability styles. At last, multiple regression analysis was conducted to investigate the relationship between big five personality traits and cross-cultural sensitivity.

## **Findings of the Surveys**

For research question 1, results of descriptive statistic indicated that Chinese international students have higher scores in agreeableness and lower scores in extraversion.

For research questions 2, results of descriptive statistics indicated that Chinese international students had higher scores in Intellectual Interaction, and lower scores in Behavioral Scale.

For research question 3, results of Factorial MANOVA was applied to investigate the relationship between demographics and personality traits. The results showed males have more openness traits compared to females. In addition, Age and Degree Seeking had an interaction. The Post Hoc Test results showed that when age group between 21-24, Degree Seeking have significant influence on agreeableness. The students who are seeking a bachelor's have a higher agreeableness score compared with the students who are seeking a master's degree. Master's Degree Seeking had significant influence on Age. At last, in masters for the Degree Seeking group, the 17-20 age group had higher agreeableness scores compare with the 21-24 age group.

For research question 4, the relationship between demographics and Cross-Cultural Sensitivity was researched using a Factorial MANOVA approach. The results showed that none of the factors were significant. In addition, none of the interaction had significant on cross-cultural sensitivity.

For research question 5 linear regression analysis was conducted. Results indicate that only Extraversion and Openness can good predict Cultural Integration, Extraversion and

Openness can good predict Behavioral Scale, Extraversion, Agreeableness, Openness, and 0-3 Month Length dummy can good predict Intellectual Interaction, Conscientiousness, Openness, 0-3 Month Length dummy, 4-6 Month Length dummy, and 7-12 Month Length dummy can good predict Attitude Toward Others, and Extraversion and Agreeableness can good predict Empathy Scale.

### **Conclusions**

One conclusion of this quantitative study was that Chinese international students had higher scores in the agreeableness traits, and lower score in extraversion on the Big Five Personality Traits survey, Chinese international students had higher scores in Intellectual Interaction, and lower scores in Behavioral Scale on the Cross-Cultural Sensitivity Inventory.

The results showed males have more openness traits compared to females. In addition, Age and Degree Seeking had an interaction. The students who are seeking a bachelor's have a higher agreeableness score compared with the students who are seeking a master's degree. At last, in masters for the Degree Seeking group, the 17-20 age group had higher agreeableness scores compare with the 21-24 age group.

### **Implications**

Important educational implications for higher education institutions and educators was suggested as a result of this study in order to address development and improvement areas for Chinese students. Doing so will assist in promoting higher education for international students' academic learning and cultural adaptation.

According to the present study findings, Chinese international students had higher scores in agreeableness, and lower scores in extraversion in the Big Five Personality Traits instrument. Agreeableness is a tendency to cooperative with others rather than suspicious and antagonistic towards others (Toegel & Barsoux, 2012). Extraversion dimensions describe people's interpersonal traits: extraversion or introversion, which always indicated if people preference of interacting with others or being alone by themselves. Therefore, Chinese students tend to cooperate with others and stay alone. These two results are not in conflict with each other. Educators can design more cooperative class activities but give enough private learning time for classes.

According to the present study findings, Chinese international students have higher scores in Intellectual Interaction, and lower scores in Behavioral Scale on the Cross-Cultural Sensitivity Inventory. Intellectual Interaction reflects people's intellectual orientation toward interactions with other cultures' people. Behavioral Response refers to individuals' perception of their behavior towards others. Therefore, educators can try different kinds of culture communication activities for Chinese students due to their high intellectual orientation toward interactions to raise their perception of other people's behavior.

The results of Big Five Personality Traits instrument indicated that males had more openness factors compared with females. Openness is the personality traits that should help individuals perform well in occupations requiring independence (Judge, & Zapata, 2015). So

educators can design more cooperative tasks for Chinese students. This implication has interaction with the first results as well.

For international educators, the Big Five Personality Traits and Cross-Cultural Sensitivity inventory are good survey for students who are willing to study abroad in the future. Students' survey results can give educators and students suggestions for future study. After taking those self-report survey, both of the students and educators will learn about students' characters better. According to their different characters, well-designed course can be settled. For example, for students who have low extroversion score, educators can pay more attention on students' emotion and give them more positive encouragement.

### **Limitations**

There are several limitations in this study. First, the present study involves the use of self-reported questionnaires. So students may not thoroughly understand their choices while completing the survey. As international students, the participants may have different conceptions about the United States' culture when it comes to specific survey questions. Second, information was collected from participants in a large southeastern research institution, which may not represent all adult and traditional learners in the U.S. Finally, most of the participants' age group was 17-20. Thus, information was collected from a limited age group, which may not represent all age groups of Chinese students' and their personality traits and cross-cultural sensitivity.

## **Recommendations for Future Research**

The following are recommendations for future research:

1. Further research with a large number of participants in a larger community to examine factors that influence Chinese students' personality traits and cross-cultural sensitivity.
2. Further research with broader scope for international students group, not only limited in Chinese students who study in the United States.
3. Instructor's perspectives can be investigated together with student's perspectives in classrooms.
4. Qualitative studies can be combined with quantitative studies to further explore international students' personality traits and cross-cultural sensitivity.
5. Further follow-up studies are needed to find relationships between learning styles, personality traits, and cross-cultural sensitivity.
6. Further Follow-up studies are needed to be conducted with sample group students who have lived and studied in the United States for a long time, such as more than one year.
7. Future follow-up studies are needed to research the personality traits and cross-culture sensitivity for United States' students who study in foreign countries.
8. Future research are needed to make connection of the Big Five Personality Traits and Cross-Cultural Sensitivity Dimensions instruments.
9. Future research are needed to make practical guidance for international students succeed.



## References

- Allison, M. T., & Geiger, C. W. (1993). Nature of leisure activities among the Chinese-American elderly. *Leisure Sciences, 15*(4), 309-319.
- Allport, G. W., & Odbert, H. S. (1936). Trait-names: A psycho-lexical study. *Psychological monographs, 47*(1), i.
- Al-Sunaidy, A., & Green, R. (2006). Electricity deregulation in OECD (Organization for Economic Cooperation and Development) countries. *Energy, 31*(6), 769-787.
- Andrews, G., Page, A. C., & Neilson, M. (1993). Sending your teenagers away: Controlled stress decreases neurotic vulnerability. *Archives of General Psychiatry, 50*(7), 585-589.
- Arora, P. G., Godoy, L., & Hodgkinson, S. (2017). Serving the underserved: Cultural considerations in behavioral health integration in pediatric primary care. *Professional Psychology: Research and Practice, 48*(3), 139.
- Ashton, M. C., Lee, K., & Paunonen, S. V. (2002). What is the central feature of extraversion? Social attention versus reward sensitivity. *Journal of personality and social psychology, 83*(1), 245.
- Auriol, L., Felix, B., & Schaaper, M. (2010). Mapping Careers and Mobility of Doctorate Holders: Draft Guidelines, Model Questionnaire and Indicators--the OECD/UNESCO

- Institute for Statistics/EUROSTAT Careers of Doctorate Holders Project. *OECD Science, Technology and Industry Working Papers*, 2010(1), 1.
- Barrera Jr, M., Castro, F. G., Strycker, L. A., & Toobert, D. J. (2013). Cultural adaptations of behavioral health interventions: A progress report. *Journal of consulting and clinical psychology*, 81(2), 196.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology*, 44(1), 1-26.
- Barrick, M. R., Mount, M. K., & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology*, 78(5), 715.
- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of applied psychology*, 83(3), 377.
- Bartneck, C., Van Der Hoek, M., Mubin, O., & Al Mahmud, A. (2007, March). Daisy, Daisy, give me your answer do!: switching off a robot. In *Proceedings of the ACM/IEEE international conference on Human-robot interaction* (pp. 217-222). ACM.
- Becker, G. (2000). Creating comparability coefficients: The case of Cronbach alpha and Cohen kappa. *Psychological Reports*, 87, 1171-1182

- Benet-Martinez, V., & John, O. P. (1998). Los Cinco Grandes across cultures and ethnic groups: Multitrait-multimethod analyses of the Big Five in Spanish and English. *Journal of personality and social psychology, 75*(3), 729.
- Bennett, M. J. (1998). *Developmental model of intercultural sensitivity*. John Wiley & Sons, Inc..
- Bentea, C. C., & Anghelache, V. (2012). Teachers' motivation and satisfaction for professional activity. *Procedia-Social and Behavioral Sciences, 33*, 563-567.
- Bernal, G. (2006). Intervention development and cultural adaptation research with diverse families. *Family process, 45*(2), 143-151.
- Bernal, G., Jiménez-Chafey, M. I., & Domenech Rodríguez, M. M. (2009). Cultural adaptation of treatments: A resource for considering culture in evidence-based practice. *Professional Psychology: Research and Practice, 40*(4), 361.
- Betancourt, J. R., Green, A. R., Carrillo, J. E., & Owusu Ananeh-Firempong, I. I. (2016). Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. *Public health reports*.
- Bogg, T., & Roberts, B. W. (2004). Conscientiousness and health-related behaviors: a meta-analysis of the leading behavioral contributors to mortality. *Psychological bulletin, 130*(6), 887.

- Bogg, T., & Roberts, B. W. (2012). The case for conscientiousness: Evidence and implications for a personality trait marker of health and longevity. *Annals of Behavioral Medicine, 45*(3), 278-288.
- Brislin, R. W., Landis, D., & Brandt, M. E. (1983). Conceptualizations of intercultural behavior and training. *Handbook of Intercultural Training, Issues in Theory and Design, 1*, 1-34.
- Brown, E. L. (2005). Using photography to explore hidden realities and raise cross-cultural sensitivity in future teachers. *The Urban Review, 37*(2), 149.
- Butler, A. M., & Titus, C. (2015). Systematic review of engagement in culturally adapted parent training for disruptive behavior. *Journal of early intervention, 37*(4), 300-318.
- Castro, F. G., Barrera Jr, M., & Holleran Steiker, L. K. (2010). Issues and challenges in the design of culturally adapted evidence-based interventions. *Annual Review of Clinical Psychology, 6*, 213-239.
- Cattell, R. B. (1957). Personality and motivation structure and measurement.
- Cavallera, G. M., Passerini, A., & Pepe, A. (2013). Personality traits and the role of gender in swimmers at the leisure level. *Social Behavior and Personality: an international journal, 41*(4), 693-703.
- Cheung, F. M., van de Vijver, F. J., & Leong, F. T. (2011). Toward a new approach to the study of personality in culture. *American Psychologist, 66*(7), 593-597.

- Chow, P., New York Institute of International Education, & Bhandari, R. (2010). *Open doors 2010: report on international educational exchange*. Institute of International Education.
- Clair, N., & Adger, C. T. (1999). Professional Development for Teachers in Culturally Diverse Schools. ERIC Digest.
- Cobb-Clark, D. A., & Schurer, S. (2012). The stability of big-five personality traits. *Economics Letters*, 115(1), 11-15.
- Costa Jr, P., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: robust and surprising findings.
- Costa Jr, P. T., & McCrae, R. R. (1976). Age differences in personality structure: A cluster analytic approach. *Journal of gerontology*, 31(5), 564-570.
- Costa, P. T., & McCrae, R. R. (1989). NEO five-factor inventory (NEO-FFI). *Odessa, FL: Psychological Assessment Resources*.
- Costa, P. T., & McCrae, R. R. (1992). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological assessment*, 4(1), 5.
- Crawford, J. (2004). *Educating English learners: Language diversity in the classroom*. Bilingual Education Serv.
- Cushner, K. (1986). The inventory of cross-cultural sensitivity. *School of Education, Kent State University*.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy.

- Davis, S. L., & Finney, S. J. (2006). A factor analytic study of the cross-cultural adaptability inventory. *Educational and Psychological Measurement, 66*(2), 318-330.
- De Feyter, T., Caers, R., Vigna, C., & Berings, D. (2012). Unraveling the impact of the Big Five personality traits on academic performance: The moderating and mediating effects of self-efficacy and academic motivation. *Learning and Individual Differences, 22*(4), 439-448.
- Deary, I. J., Weiss, A., & Batty, G. D. (2010). Intelligence and personality as predictors of illness and death: How researchers in differential psychology and chronic disease epidemiology are collaborating to understand and address health inequalities. *Psychological science in the public interest, 11*(2), 53-79.
- DeYoung, C. G. (2006). Higher-order factors of the Big Five in a multi-informant sample. *Journal of personality and social psychology, 91*(6), 1138.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual review of psychology, 41*(1), 417-440.
- Edmonds, G. W., Goldberg, L. R., Hampson, S. E., & Barckley, M. (2013). Personality stability from childhood to midlife: relating teachers' assessments in elementary school to observer-and self-ratings 40years later. *Journal of research in personality, 47*(5), 505-513.
- Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual review of psychology, 51*(1), 665-697.

- Epstein, S., & O'Brien, E. J. (1985). The person–situation debate in historical and current perspective. *Psychological bulletin*, 98(3), 513.
- Eysenck, M. W., & Eysenck, H. J. (1980). Mischel and the concept of personality. *British Journal of Psychology*, 71(2), 191-204.
- Geertz, C. (1973). *The interpretation of cultures* (Vol. 5019). Basic books.
- Goldberg, L. R. (1981). Language and individual differences: The search for universals in personality lexicons. *Review of personality and social psychology*, 2(1), 141-165.
- Goldberg, L. R. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment*, 4(1), 26-30.
- Graziano, W. G., Jensen-Campbell, L. A., & Hair, E. C. (1996). Perceiving interpersonal conflict and reacting to it: the case for agreeableness. *Journal of personality and social psychology*, 70(4), 820.
- Graziano, W. G., & Eisenberg, N. (1997). Agreeableness: A dimension of personality. *Handbook of personality psychology*, 18(2), 185-213.
- Graziano, W. G., Feldesman, A. B., & Rahe, D. F. (1985). Extraversion, social cognition, and the salience of aversiveness in social encounters. *Journal of Personality and Social Psychology*, 49(4), 971.
- Hall, E. T. (1976). *Beyond Culture*, Anchor. Garden City, NY.
- Hampson, S. E., Edmonds, G. W., Barckley, M., Goldberg, L. R., Dubanoski, J. P., & Hillier, T. A. (2016). A Big Five approach to self-regulation: Personality traits and health

- trajectories in the Hawaii longitudinal study of personality and health. *Psychology, health & medicine*, 21(2), 152-162.
- Hee, O. C. (2014). Validity and reliability of the big five personality traits scale in malaysia. *International Journal of Innovation and Applied Studies*, 5(4), 309.
- Hmel, B. A., & Pincus, A. L. (2002). The meaning of autonomy: On and beyond the interpersonal circumplex. *Journal of personality*, 70(3), 277-310.
- Hodges, P. W., Cresswell, A. G., Daggfeldt, K., & Thorstensson, A. (2001). In vivo measurement of the effect of intra-abdominal pressure on the human spine. *Journal of biomechanics*, 34(3), 347-353.
- Hogan, R. (1969). Development of an empathy scale. *Journal of consulting and clinical psychology*, 33(3), 307.
- Hong, S. (2016). *Exploring English Language Learners' Self-Efficacy Beliefs, Language Learning Strategies and Goal Orientation* (Doctoral dissertation).
- Huang, W. W., Zhou, F. S., Bushnell, D. M., Diakite, C., & Yang, X. H. (2007). Cultural adaptation and application of the IBS-QOL in China: a disease-specific quality-of-life questionnaire. *Quality of Life Research*, 16(6), 991-996.
- Jackson, J. F., & Heggins III, W. J. (2003). Understanding the collegiate experience for Asian international students at a Midwestern research university. *College Student Journal*, 37(3), 379-391.



- Jahoda, G. (2012). Critical reflections on some recent definitions of “culture”. *Culture & Psychology, 18*(3), 289-303.
- Jeronimus, B. F., Kotov, R., Riese, H., & Ormel, J. (2016). Neuroticism's prospective association with mental disorders halves after adjustment for baseline symptoms and psychiatric history, but the adjusted association hardly decays with time: a meta-analysis on 59 longitudinal/prospective studies with 443 313 participants. *Psychological medicine, 46*(14), 2883-2906.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative big five trait taxonomy. *Handbook of personality: Theory and research, 3*, 114-158.
- John, O. P., Robins, R.W., & Pervin, L. A. (2008). *The handbook of personality psychology: Theory and research*. New York, NY: Guilford Press.
- John, O. P., Robins, R. W., & Pervin, L. A. (2008). *Handbook of personality: Theory and research*. New York.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research, 2*(1999), 102-138.
- Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of applied psychology, 85*(5), 751.
- Judge, T. A., & Cable, D. M. (1997). Applicant personality, organizational culture, and organization attraction. *Personnel psychology, 50*(2), 359-394.

- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: a meta-analysis.
- Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel psychology*, 52(3), 621-652.
- Judge, T. A., Livingston, B. A., & Hurst, C. (2012). Do nice guys—and gals—really finish last? The joint effects of sex and agreeableness on income. *Journal of personality and social psychology*, 102(2), 390.
- Judge, T. A., & Zapata, C. P. (2015). The person–situation debate revisited: Effect of situation strength and trait activation on the validity of the Big Five personality traits in predicting job performance. *Academy of Management Journal*, 58(4), 1149-1179.
- Kagan, S. L., & Garcia, E. E. (1991). Educating culturally and linguistically diverse preschoolers: Moving the agenda. *Early Childhood Research Quarterly*, 6(3), 427-443.
- Kasworm, C. E., Polson, C. J., & Fishback, S. J. (2002). Responding to Adult Learners in Higher Education. Professional Practices in Adult Education and Human Resource Development Series. Melbourne, FL: Krieger Publishing Company.
- Kelley, C., & Meyers, J. (1995). *CCAI: Cross-Cultural Adaptability Inventory: Self-assessment*. Pearson Education.

- Kenrick, D. T., & Funder, D. C. (1988). Profiting from controversy: Lessons from the person-situation debate. *American psychologist*, *43*(1), 23.
- King, L. A., Walker, L. M., & Broyles, S. J. (1996). Creativity and the five-factor model. *Journal of research in personality*, *30*(2), 189-203.
- Kirkcaldy, B., & Furnham, A. (1991). Extraversion, neuroticism, psychoticism and recreational choice. *Personality and individual Differences*, *12*(7), 737-745.
- Klimstra, T. A., Luyckx, K., Germeijs, V., Meeus, W. H., & Goossens, L. (2012). Personality traits and educational identity formation in late adolescents: Longitudinal associations and academic progress. *Journal of Youth and Adolescence*, *41*(3), 346-361.
- Kodjo, C. (2009). Cultural competence in clinician communication. *Pediatrics in review/American Academy of Pediatrics*, *30*(2), 57.
- Koestner, R., & Losier, G. F. (1996). Distinguishing reactive versus reflective autonomy. *Journal of Personality*, *64*(2), 465-494.
- Komarraju, M., Karau, S. J., Schmeck, R. R., & Avdic, A. (2011). The Big Five personality traits, learning styles, and academic achievement. *Personality and individual differences*, *51*(4), 472-477.
- Lau, A. S. (2006). Making the case for selective and directed cultural adaptations of evidence-based treatments: examples from parent training. *Clinical psychology: Science and practice*, *13*(4), 295-310.

- Lee, S. A. (2009). Does empathy mediate the relationship between neuroticism and depressive symptomatology among college students?. *Personality and Individual Differences, 47*(5), 429-433.
- Leong, C. H., & Ward, C. (2000). Identity conflict in sojourners. *International Journal of Intercultural Relations, 24*(6), 763-776.
- Li, M. Z., & Stodolska, M. (2006). Transnationalism, leisure, and Chinese graduate students in the United States. *Leisure Sciences, 28*(1), 39-55.
- Loo, R., & Shiomi, K. (1999). A structural and cross-cultural evaluation of the inventory of cross-cultural sensitivity. *Journal of Social Behavior and Personality, 14*(2), 267.
- Lopez, S. R. (1997). Cultural competence in psychotherapy: A guide for clinicians and their supervisors.
- Lopez, S. R., Grover, K. P., Holland, D., Johnson, M. J., Kain, C. D., Kanel, K., ... & Rhyne, M. C. (1989). Development of culturally sensitive psychotherapists. *Professional Psychology: Research and Practice, 20*(6), 369.
- Lucas, R. E., Diener, E., Grob, A., Suh, E. M., & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of personality and social psychology, 79*(3), 452.
- MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of language and social psychology, 15*(1), 3-26.

- Magalhães, E., Costa, P., & Costa, M. J. (2012). Empathy of medical students and personality: evidence from the Five-Factor Model. *Medical teacher, 34*(10), 807-812.
- Markon, K. E., Krueger, R. F., & Watson, D. (2005). Delineating the structure of normal and abnormal personality: an integrative hierarchical approach.
- Martinez Jr, C. R., & Eddy, J. M. (2005). Effects of culturally adapted parent management training on Latino youth behavioral health outcomes. *Journal of consulting and clinical psychology, 73*(5), 841.
- McCrae, R. R. The five-factor model of personality traits: consensus and controversy. In. GMPJ Corr, editor. *Cambridge Handbook of Personality Psychology*, 148-161.
- McCrae, R. R., & Costa, P. T. (2010). NEO Inventories professional manual. *Lutz, FL: Psychological Assessment Resources*.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of personality, 60*(2), 175-215.
- McCrae, R. R., & Terracciano, A. (2005). Universal features of personality traits from the observer's perspective: data from 50 cultures. *Journal of personality and social psychology, 88*(3), 547.
- McCrae, R. R., & Terracciano, A. (2005). Personality profiles of cultures: aggregate personality traits. *Journal of personality and social psychology, 89*(3), 407.

- Melchers, M. C., Li, M., Haas, B. W., Reuter, M., Bischoff, L., & Montag, C. (2016). Similar personality patterns are associated with empathy in four different countries. *Frontiers in psychology, 7*.
- Mendiburo-Seguel, A., Páez, D., & Martínez-Sánchez, F. (2015). Humor styles and personality: A meta-analysis of the relation between humor styles and the Big Five personality traits. *Scandinavian journal of psychology, 56*(3), 335-340.
- Mooradian, T. A., Davis, M., & Matzler, K. (2011). Dispositional empathy and the hierarchical structure of personality. *The American journal of psychology, 124*(1), 99-109.
- Mõttus, R., Johnson, W., Starr, J. M., & Deary, I. J. (2012). Correlates of personality trait levels and their changes in very old age: The Lothian Birth Cohort 1921. *Journal of Research in Personality, 46*(3), 271-278.
- Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Five-factor model of personality and performance in jobs involving interpersonal interactions. *Human performance, 11*(2-3), 145-165.
- Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. *The Journal of Abnormal and Social Psychology, 66*(6), 574.

- Norris, C. J., Larsen, J. T., & Cacioppo, J. T. (2007). Neuroticism is associated with larger and more prolonged electrodermal responses to emotionally evocative pictures. *Psychophysiology*, *44*(5), 823-826.
- O'Connor, M. C., & Paunonen, S. V. (2007). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences*, *43*(5), 971-990.
- Office of Immigration Statistics, US Dep't of Homeland Security. (2004). 2003 Yearbook of Immigration Statistics.
- Olsen, L. (1997). *Made in America: Immigrant students in our public schools*. The New Press, 450 West 41st Street, New York, NY 10036.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses.
- Parra-Cardona, J. R., Domenech Rodríguez, M. M., Forgatch, M. S., Sullivan, C. M., Bybee, D., Holtrop, K., ... & Bernal, G. (2012). Culturally adapting an evidence-based parenting intervention for Latinos: Preliminary implications for family therapy practice and research. *Family Process*, *51*(1), 56.
- Paunonen, S. V. (2003). Big Five factors of personality and replicated predictions of behavior. *Journal of personality and social psychology*, *84*(2), 411.
- Pedersen, P. B. (1991). Introduction to the special issue on multiculturalism as a fourth force in counseling. *Journal of Counseling & Development*, *70*(1), 4-4.

- Pedersen, P. B., Lonner, W. J., Draguns, J. G., Trimble, J. E., & Scharron-del Rio, M. R. (Eds.). (2015). *Counseling across cultures*. Sage.
- Pervin, L. A., & John, O. P. (Eds.). (1999). *Handbook of personality: Theory and research*. Elsevier.
- Phillips, D. A., & Cabrera, N. J. (1996). Roundtable on head start research board on children, youths and families. National Research Council and Institute of Medicine.
- Pruegger, V. J., & Rogers, T. B. (1993). Development of a scale to measure cross-cultural sensitivity in the Canadian context. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 25(4), 615.
- Raja, U., & Johns, G. (2010). The joint effects of personality and job scope on in-role performance, citizenship behaviors, and creativity. *Human Relations*, 63(7), 981-1005.
- Resnicow, K., Soler, R., Braithwaite, R. L., Ahluwalia, J. S., & Butler, J. (2000). Cultural sensitivity in substance use prevention. *Journal of community psychology*, 28(3), 271-290.
- Reynaud, E., El Khoury-Malhame, M., Rossier, J., Blin, O., & Khalfa, S. (2012). Neuroticism modifies psychophysiological responses to fearful films. *PloS one*, 7(3), e32413.
- Ridley, C. R., Baker, D. M., & Hill, C. L. (2001). Critical issues concerning cultural competence. *The Counseling Psychologist*, 29(6), 822-832.



- Ridley, C. R., Mendoza, D. W., Kanitz, B. E., Angermeier, L., & Zenk, R. (1994). Cultural sensitivity in multicultural counseling: A perceptual schema model. *Journal of Counseling Psychology, 41*(2), 125.
- Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology, 51*(3), 649.
- Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science, 2*(4), 313-345.
- Roberts, B. W., & Mroczek, D. (2008). Personality trait change in adulthood. *Current directions in psychological science, 17*(1), 31-35.
- Rothmann, S., & Coetzer, E. P. (2003). The big five personality dimensions and job performance. *SA Journal of Industrial Psychology, 29*(1), 68-74.
- Rubino, N. (1994). Alternative Teacher Certification: An Avenue for Quality and Diversity in Public Education.
- Schmeck, R. R., Ribich, F., & Ramanaiah, N. (1977). Development of a self-report inventory for assessing individual differences in learning processes. *Applied psychological measurement, 1*(3), 413-431.

- Schmitt, D. P., Realo, A., Voracek, M., & Allik, J. (2008). Why can't a man be more like a woman? Sex differences in Big Five personality traits across 55 cultures. *Journal of personality and social psychology, 94*(1), 168.
- Searle, W., & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International journal of intercultural relations, 14*(4), 449-464.
- Shiomi, K., & Loo, R. (1999). Cross-cultural response styles on the Kirton Adaption-Innovation Inventory. *Social Behavior and Personality: an international journal, 27*(4), 413-419.
- Shrout, P. E., & Fiske, S. T. (1995). Personality research, methods, and theory.
- Singh, A. K., Singh, S., & Singh, A. P. (2012). Does trait predict psychological well-being among students of professional courses?. *Journal of the Indian Academy of Applied Psychology, 38*(2), 234-241.
- Smith, J. (2014). US Census Bureau.
- Smith, P. B., Bond, M. H., & Kagitcibasi, C. (2006). *Understanding social psychology across cultures: Living and working in a changing world*. Sage.
- Soto, C. J., John, O. P., Gosling, S. D., & Potter, J. (2011). Age differences in personality traits from 10 to 65: Big Five domains and facets in a large cross-sectional sample. *Journal of personality and social psychology, 100*(2), 330.

- Srivastava, S., John, O. P., Gosling, S. D., & Potter, J. (2003). Development of personality in early and middle adulthood: Set like plaster or persistent change?. *Journal of personality and social psychology*, *84*(5), 1041.
- Steel, G. D., Rinne, T., & Fairweather, J. (2012). Personality, nations, and innovation: Relationships between personality traits and national innovation scores. *Cross-Cultural Research*, *46*(1), 3-30.
- Stodolska, M. (2000). Changes in leisure participation patterns after immigration. *Leisure Sciences*, *22*(1), 39-63.
- Stodolska, M., & Alexandris, K. (2004). The role of recreational sport in the adaptation of first generation immigrants in the United States. *Journal of Leisure Research*, *36*(3), 379.
- Stodolska, M., & Yi, J. (2003). Impacts of immigration on ethnic identity and leisure behavior of adolescent immigrants from Korea, Mexico and Poland. *Journal of Leisure research*, *35*(1), 49.
- Sue, D. W., & Sue, D. (2012). *Counseling the culturally diverse: Theory and practice*. John Wiley & Sons.
- Sullivan, C., & Cottone, R. R. (2010). Emergent Characteristics of Effective Cross-Cultural Research: A Review of the Literature. *Journal of Counseling & Development*, *88*(3), 357-362.

- Swartz-Kulstad, J. L., & Martin, W. E. (1999). Impact of culture and context on psychosocial adaptation: The cultural and contextual guide process. *Journal of Counseling & Development, 77*(3), 281-293.
- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology, 88*(3), 500.
- Thomas, D. C., & Ravlin, E. C. (1995). Responses of employees to cultural adaptation by a foreign manager. *Journal of Applied Psychology, 80*(1), 133.
- Toegel, G., & Barsoux, J. L. (2012). How to become a better leader. *MIT Sloan Management Review, 53*(3), 51.
- Trull, T. J., & Geary, D. C. (1997). Comparison of the big-five factor structure across samples of Chinese and American adults. *Journal of Personality Assessment, 69*(2), 324-341.
- Tupes, E. C., & Christal, R. E. (1961). *Recurrent personality factors based on trait ratings* (No. ASD-TR-61-97). PERSONNEL RESEARCH LAB LACKLAND AFB TX.
- Walker, G. J., Deng, J., & Dieser, R. B. (2001). Ethnicity, acculturation, self-construal, and motivations for outdoor recreation. *Leisure Sciences, 23*(4), 263-283.
- Wasson, D. H., & Jackson, M. H. (2002). Assessing cross-cultural sensitivity awareness: A basis for curriculum change. *Journal of Instructional Psychology, 29*(4), 265.

- Whaley, A. L. (2008). Cultural sensitivity and cultural competence: toward clarity of definitions in cross-cultural counselling and psychotherapy. *Counselling Psychology Quarterly*, 21(3), 215-222.
- Witt, L. A., Burke, L. A., Barrick, M. R., & Mount, M. K. (2002). The interactive effects of conscientiousness and agreeableness on job performance. *Journal of Applied Psychology*, 87(1), 164.
- Yu, P., & Berryman, D. L. (1996). The relationship among self-esteem, acculturation, and recreation participation of recently arrived Chinese immigrant adolescents. *Journal of Leisure Research*, 28(4), 251.
- Zeidner, M., & Shani-Zinovich, I. (2011). Do academically gifted and nongifted students differ on the Big-Five and adaptive status? Some recent data and conclusions. *Personality and Individual Differences*, 51(5), 566-570.
- Zimmermann, J., & Neyer, F. J. (2013). Do we become a different person when hitting the road? Personality development of sojourners. *Journal of personality and social psychology*, 105(3), 515.

## APPENDIX A

### The Online Survey

## Default Question Block

---

### INFORMATION LETTER

For a Research Study entitled

“An Examination of Chinese International Students’ Personality Traits and Cross-Cultural Adaptation”

**You are invited to participate in a research study to investigate relationship between Personality Traits and Cross-Cultural Adaptation for Chinese international students.** This study is being conducted by Mingyu Huang, a PhD student of the Department of Educational Foundations, Leadership, and Technology at Auburn University, under the direction of Dr. Maria M. Witte, Professor of Department of Educational Foundations, Leadership, and Technology at Auburn University. You are invited to participate because you are enrolled in Auburn Global Program. The sample includes both male and female individuals who are 18 years of age and older.

**What will be involved if you participate?** Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete the instrument and questionnaire. The instrument and questionnaire will be administered in electronic form and will take 10 minutes to complete.

**Are there any risks or discomforts?** You should not encounter any reasonable risks if you decide to participate in this research study because there are no known risks or discomforts

**Are there any benefits to yourself or others?** There is no benefit.

**Will you receive compensation for participating?** There is no compensation for participating in the study.

**Are there any costs?** If you decide to participate, you will not have to pay anything.

If you decide to participate in this research study, you will be asked to take an anonymous online survey through Qualtrics. Your total time commitment will be approximately 10 minutes. If you feel uncomfortable answering any questions, you can withdraw from the survey at any time by closing your browser window. Once you’ve submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or

not to participate will not jeopardize your future relations with the Department of EFLT and Auburn University. If you have any questions about this study, please ask them now or contact Mingyu Huang at [mzh0066@auburn.edu](mailto:mzh0066@auburn.edu)

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

---

1. What is your age?

---

2. What is your gender?

- Male  
 Female

---

3. Which program are you in Auburn Global?

---

4. What is your major?

---

5. How long have you been in Auburn?



6. Do you have experience of living abroad before you came to Auburn? Which country and how long? (e.g. Canada, 2 months)

7. Which degree are you seeking in Auburn?

Bachelor Degree

Master Degree

Others

### The Big Five Inventory (BFI)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

Please indicate whether or not you believe each statement applies to you by marking whether you:

1.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is Talkative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Tends to find fault with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is depressed, blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

4.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is original, comes up with new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

5.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is reserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

6.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is helpful and unselfish with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

7.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Can be somewhat careless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

8.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is relaxed, handles stress well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

9.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is curious about many different things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

10.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is full of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

11.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Starts quarrels with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

12.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is a reliable worker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

13.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Can be tense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

14.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is ingenious, a deep thinker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

15.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Generates a lot of enthusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

16.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Has a forgiving nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

17.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Tends to be disorganized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

18.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Worries a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

19.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Has an active imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

20.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Tends to be quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

21.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is generally trusting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

22.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Tends to be lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

23.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
--	-------------------	-------------------	----------------------------	----------------	----------------

Is emotionally stable,  
not easily upset

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

---

24.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is inventive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

25.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Has an assertive personality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

26.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Can be cold and aloof	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

27.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Perseveres until the task is finished	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

28.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
--	-------------------	-------------------	----------------------------	----------------	----------------

Can be moody                                                                                                             

---

29.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Values artistic, aesthetic experiences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

30.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is sometimes shy, inhibited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

31.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is considerate and kind to almost everyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

32.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Does things efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

33.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

Remains calm in tense situations                             

---

34.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Prefers work that is routine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

35.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is outgoing, sociable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

36.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is sometimes rude to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

37.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Makes plans and follows through with them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

38.

Strongly	Somewhat	Neither agree	Somewhat	Strongly
----------	----------	---------------	----------	----------



	disagree	disagree	nor disagree	agree	agree
Gets nervous easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

39.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Likes to reflect, play with ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

40.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Has few artistic interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

41.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Likes to cooperate with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

42.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Is easily distracted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

43.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
--	-------------------	-------------------	----------------------------	----------------	----------------

Is sophisticated in art,  
music, or literature

---

### Inventory of Cross-Cultural Sensitivity

Please read the instructions on this page. Then, select the option the best corresponds to your level of agreement with each statement below.

---

1.

Strongly  
disagree

Somewhat  
disagree

Neither agree  
nor disagree

Somewhat  
agree

Strongly  
agree

I speak only two  
languages.

2.

Strongly  
disagree

Somewhat  
disagree

Neither agree  
nor disagree

Somewhat  
agree

Strongly  
agree

The way other people  
express themselves is  
very interesting to me.

3.

Strongly  
disagree

Somewhat  
disagree

Neither agree  
nor disagree

Somewhat  
agree

Strongly  
agree

I enjoy being with  
people from other  
cultures.

4.

Strongly  
disagree

Somewhat  
disagree

Neither agree  
nor disagree

Somewhat  
agree

Strongly  
agree

Foreign influence in our country threatens our national identity.

---

5.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Others' feelings rarely influence decisions I make.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

6.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I can only eat either with chopsticks or fork.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

7.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I avoid people who are different from me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

8.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
It is better that people from other cultures avoid one another.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

9.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Culturally mixed marriages are wrong.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

10.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I think people are basically alike.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

11.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I have never lived outside my own culture for any great length of time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

12.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I have foreigners over to my home on a regular basis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

13.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I makes me nervous to talk about people who	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

are different than me.

---

14.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I enjoy studying about people from other cultures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

15.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
People from other cultures do things differently because they do not know any other way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

16.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There is usually more than one good way to get things done.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

17.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I listen to music from another culture on a regular basis.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

18.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I decorate my home or room with artifacts from other countries.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

19.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I feel uncomfortable when in a crowd of people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

20.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The very existence of humanity depends upon our knowledge about other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

21.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Residential neighborhoods should be culturally separated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

22.

	Strongly	Somewhat	Neither agree	Somewhat	Strongly
--	----------	----------	---------------	----------	----------

	disagree	disagree	nor disagree	agree	agree
I have many friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

23.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I dislike eating foods from other cultures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

24.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I think about living within another culture in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

25.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Moving into another culture would be easy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

26.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I like to discuss issues with people from other cultures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

27.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There should be tighter controls on the number of immigrants allowed into my country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

28.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The more I know about people, the more I dislike them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

29.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I read more national news than international news in the daily newspaper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

30.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Crowds of foreigners frighten me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

31.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
--	-------------------	-------------------	----------------------------	----------------	----------------

---



When something newsworthy happens I seek out someone from that part of the world to discuss the issues with.

---

32.

Strongly disagree      Somewhat disagree      Neither agree nor disagree      Somewhat agree      Strongly agree

I eat ethnic foods at least twice a week.

## APPENDIX B

### Information Letter of the Online Survey for this Study

Add this approval information in sentence form to your electronic information letter!



The Auburn University Institutional Review Board has approved this Document for use from 09/15/2017 to 09/14/2020  
Protocol # 17-347 EX 1709

## AUBURN UNIVERSITY

COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

### INFORMATION LETTER

For a Research Study entitled

*“An Examination of Chinese International Students’ Personality Traits and Cross-Cultural Adaptation”*

You are invited to participate in a research study to investigate *relationship between Personality Traits and Cross-Cultural Adaptation for Chinese international students*. This study is being conducted by Mingyu Huang, a PhD student of the Department of Educational Foundations, Leadership, and Technology at Auburn University, under the direction of Dr. Maria M. Witte, Professor of Department of Educational Foundations, Leadership, and Technology at Auburn University. You are invited to participate because you are enrolled in Auburn Global Program. The sample includes both male and female individuals who are 18 years of age and older.

**What will be involved if you participate?** Your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete the instrument and questionnaire. The instrument and questionnaire will be administered in electronic form and will take 10 minutes to complete.

**Are there any risks or discomforts?** You should not encounter any reasonable risks if you decide to participate in this research study because there are no known risks or discomforts.

**Are there any benefits to yourself or others?** There is no benefit.

**Will you receive compensation for participating?** There is no compensation for participating in the study.

**Are there any costs?** If you decide to participate, you will not have to pay anything.

If you decide to participate in this research study, you will be asked to take an anonymous online survey through Qualtrics. Your total time commitment will be approximately 10 minutes. If you feel uncomfortable answering any questions, you can withdraw from the survey at any time by closing your browser window. Once you’ve submitted anonymous data, it cannot be withdrawn since it will be unidentifiable. Your decision about whether or not to participate will not jeopardize your future relations with the Department of EFLT and Auburn University.

4036 Haley Center, Auburn, AL 3684-5221; Telephone: 334-844-4460; Fax: 334-844-3072

w w w . a u b u r n . e d u



**AUBURN UNIVERSITY**

COLLEGE OF EDUCATION

EDUCATIONAL FOUNDATIONS, LEADERSHIP AND TECHNOLOGY

If you have any questions about this study, please ask them now or contact Mingyu Huang at [mzh0066@auburn.edu](mailto:mzh0066@auburn.edu)

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu) or [IRBChair@auburn.edu](mailto:IRBChair@auburn.edu).

**HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.**

Mingyu Huang      08/12/2017

Investigator's signature      Date

Mingyu Huang

Print Name

Dr. Maria M. Witte

Co-Investigator

**Add this approval information in sentence form to your electronic information letter!**

The Auburn University Institutional Review Board has approved this Document for use from 09/15/2017 to 09/14/2020  
Protocol # 17-347 EX 1709

4036 Haley Center, Auburn, AL 3684-5221; Telephone: 334-844-4460; Fax: 334-844-3072

w w w . a u b u r n . e d u

APPENDIX C

Approved Email from Office of Research Compliance of Auburn University

## Approval, Exempt Protocol #17-347 EX 1709

IRB Administration <irbadmin@auburn.edu>

Fri 9/15/2017 9:50 AM

Inbox

To: Mingyu Huang <mzh0066@tigermail.auburn.edu>;

Cc: Maria Witte <wittemm@auburn.edu>;

📎 2 attachments (2 MB)

Investigators Responsibilities rev 1-2011.docx; Huang 17-347 EX 1709 Revisions 1.pdf;

Use [IRBsubmit@auburn.edu](mailto:IRBsubmit@auburn.edu) for protocol-related submissions and [IRBadmin@auburn.edu](mailto:IRBadmin@auburn.edu) for questions and information.

The IRB only accepts forms posted at <https://cwt.auburn.edu/ypr/compliance/humansubjects/Forms> and submitted electronically.

Dear Ms. Huang,

Your protocol entitled "An Examination of Chinese International Students' Personality Traits and Cross-Cultural Adaptation" has been approved by the IRB as "Exempt" under federal regulation 45 CFR 46.101(b)(2).

### Official notice:

This e-mail serves as official notice that your protocol has been approved. A formal approval letter will not be sent unless you notify us that you need one. By accepting this approval, you also accept your responsibilities associated with this approval. Details of your responsibilities are attached. Please print and retain.

### Electronic Information Letter:

A copy of your approved protocol is attached. However you still need to *add the following IRB approval information to your information letter(s): "The Auburn University Institutional Review Board has approved this document for use from September 15, 2017 to September 14, 2020. Protocol #17-347 EX 1709"*

You must use the updated document(s) to consent participants. *Please forward the actual electronic letter(s) with a live link so that we may print a final copy for our files.*

### Expiration – Approval for three year period:

Your protocol will expire on **September 14, 2020**. About three weeks before that time you will need to submit a renewal request.

When you have completed all research activities, have no plans to collect additional data and have destroyed all identifiable information as approved by the IRB, please notify this office via e-mail. A final report is no longer required for Exempt protocols.

If you have any questions, please let us know.  
Best wishes for success with your research!

IRB Admin  
Office of Research Compliance  
115 Ramsay Hall