



ANGLIA RUSKIN UNIVERSITY

FACULTY OF ARTS, HUMANITIES AND SOCIAL SCIENCES

PERSONALITY TRAITS AS INDICATORS OF INTERNATIONAL  
STUDENTS' INTERCULTURAL COMMUNICATION COMPETENCE

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A thesis in partial fulfilment of the requirements of Anglia Ruskin University for  
the degree of Doctor of Philosophy

Submitted: January 2020

## **Acknowledgements**

Undertaking research and completing a PhD thesis are proud achievements for any academic, largely because it is not an easy process, and there have been many hurdles along my own path to success. For this reason, there are a number of people to whom I am eternally indebted for their support and love, with whom I have shared this stressful but deeply fulfilling journey, and without whom this thesis would never have been completed. First, I would like to thank my supervisors Professor Guido Rings and Dr. Bettina Beinhoff, who have guided me through the most difficult times of the writing process. I left every supervision meeting and class feeling more inspired, more knowledgeable and perhaps most important, more capable of my own abilities. Their patience and support have been unwavering throughout my time as a PhD researcher at Anglia Ruskin University. Moreover, their wisdom and insight have helped to make this project the best it can be. I would like to thank everybody at the school of humanities and social sciences at Anglia Ruskin University who taught me, either formally or informally, and who made my time here so enjoyable and rewarding. Anglia Ruskin University is an inspiring place where I felt nurtured. The encouragement to pursue my own goals and discuss my ideas with peers and tutors has developed my academic mind. Knowledge and a persistence for questioning are skills I will keep with me throughout my career.

I would also like to offer my deepest gratitude to my wife Seham, who has supported me unconditionally. There have been moments of great stress and sadness over the past few months in particular, and my wife has guided me through these. Her patience seems to know no bounds. For this and so many other reasons, my love and devotion towards her are unwavering.

My parents, Salim and Mariyam, also have been great sources of support. They gave me a thirst for knowledge as well as the persistence and perseverance to strive for the things that I want from life. Without their input throughout the years, I would not have developed the inquisitive mind or

the stubborn determination needed to become a successful academic. I thank you from the bottom of my heart for everything you have done for me.

On a more practical note, I acknowledge and give thanks to my uncle Saleh, who provided the financial support necessary for me to follow my dreams and undertake a postgraduate degree. Without your help, this would not have been possible. I am eternally grateful for the opportunities your kindness and benevolence you have provided for me and my family. I know that the rewards will be great. Knowledge is a powerful tool and the most important gift one can receive from life. Thank you so much.

Thanks must also go to my friend Mohammad, who sadly passed away of leukaemia before I was able to finish this project. He never got to see me finish my thesis or graduate, as we had both hoped. Still, he is forever in my heart. I am eternally grateful for all the moments I shared with him over the years. His encouragement during my PhD journey was invaluable to me in so many ways. It is with the deepest sadness that I acknowledge the loss of such a dear and wise friend. Rest in Peace.

Last but by no means least, I would like to thank my two children, Abdullah and Sattam. You are the future generation of this family and the world. You are the light of my life, and I do everything out of love for you both. I want you to grow up with a role model who shows you that all of your dreams can be achieved and that you have the unconditional support and encouragement needed to do wonderful and great things in your lives. I dedicate my thesis to you both.

Thanks must also go to my friends and family, as well as the proof-readers who have indirectly offered me support, guidance, or love throughout my life, allowing me in one way or another to achieve this milestone.

ANGLIA RUSKIN UNIVERSITY

**ABSTRACT**

FACULTY OF ARTS, HUMANITIES AND SOCIAL SCIENCES

DOCTOR OF PHILOSOPHY

PERSONALITY TRAITS AS INDICATORS OF INTERNATIONAL  
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January 2020

This longitudinal PhD thesis investigates the relationship between personality traits and intercultural communication competence among international students in Saudi Arabia. The study also explores whether various demographic and contextual factors affect intercultural communication competence. The work addresses two gaps in the literature relating to (1) the lack of research on the link between personality traits and intercultural communication competence and (2) the paucity of research on intercultural competence in the Saudi educational context. Personality traits can affect how people interact with others and how they behave in new situations. This study uses mixed-methods approach to explore the relationship between personality traits and intercultural communication competence. Participants' intercultural communication competence was measured using the Assessment of Intercultural Competence and the International Personality Item Pool for personality traits of neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. A total of 95 international students at Umm Al Qura University completed the surveys in April 2017, 53 of whom repeated the assessment in April 2019. Interviews were conducted with 12 students to clarify survey results. The key survey findings included lower neuroticism and higher openness predicted participants' overall intercultural competence at both assessment points. Other personality traits predicted specific intercultural abilities: agreeableness predicted intercultural awareness, conscientiousness predicted intercultural knowledge and skills and extroversion fostered intercultural attitudes and skills. After two years in Saudi Arabia, extroversion enhanced intercultural knowledge and skills. The surveys also found that participation in an orientation programme did not affect students' intercultural communication competence at the two time points. Interviews confirmed that intercultural competence depended more on openness than extroversion and orientation programme was insufficiently developed. To improve international students' intercultural communication competence, educational institutions should develop intercultural training programmes that offer particular support for neurotic, agreeable and conscientious students, as these individuals are least likely to have well-developed intercultural competence.

Key words: Personality Traits, Five-Factor Model, Intercultural Communication Competence, Saudi Arabia

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## **Copyright Declaration**

As the author of this thesis, I confirm that all text was written by me. I was the sole researcher behind this work, meaning that I gathered and analysed all data. The whole thesis, therefore, is my own original work. I further declare that the thesis does not contain material that, in its original form, belongs to a third party. To the best of my knowledge, I have not plagiarised other authors' work, nor have I included other researchers' charts or diagrams without modification. All third-party material has been appropriately cited and fully referenced in the thesis. I have obtained permission to use other authors' questionnaires. I further declare that I am supplying the copy of this thesis under the condition that the third parties acknowledge my ownership of this work.

# 1. Introduction

In the age of globalisation, intercultural communication competence (ICC) is a necessity (Emert, 2008, p. 41; Moodian, 2008, p. 3; Xiaochi, 2012, p. 62) for managing changes such as new global businesses, increasing migration and new technology. ICC is also an essential feature of human development, as it develops a multicultural vision, enriches worldviews, facilitates successful communication and business, boosts the bond of humanity and promotes an international perspective. Schmid (2009, p. 165) defined ICC as the ability to understand different cultures, accept individuals from different cultures and interact with a wide range of individuals without showing prejudice and aggression.

The broader literature suggests that cultural competence development is enhanced by certain personality traits and hindered by others (Wilson, Ward and Fischer, 2013, p. 913) which has led me to explore this link in greater detail. Several theories and models that have been developed to conceptualise personality traits and draw parallels between people's traits and their intercultural views and between traits and behaviour in intercultural situations. Among the most influential theories are van der Zee and van Oudenhoven's (2000, p. 291) Multicultural Personality Model which explores the role of personality traits in intercultural adaptation. Tett and Burnett's (2003, p. 505) Trait Activation Theory is another theoretical perspective which offers interesting insight into relationships between situational factors and personality traits in organisational settings. Furthermore, Costa and McCrae's (1992a, p. 635) Five-Factor Model of Personality is another influential theory which identifies five personality traits: neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. These models, regardless of their strengths and weaknesses, succeed in capturing fundamental personality dimensions and explaining the personality-behaviour link.

A common argument in the literature is that personality traits play central roles in a person's interactions with others and their behaviour in new situations, such as when entering new cultures

(van Driel and Gabrenya, 2012, p. 874). In addition, it is believed that personality traits affect how one deals with cultural differences and makes decisions (Liles and Melissa, 2016, n.p.). Consequently, it could be theorised that understanding the relationship between personality traits and ICC could give valuable insights into how to ‘create a composite personality profile’ (McCrae, 2001, p. 832) and reinforce ICC in international students. However, despite the potential importance of personality traits for ICC, there is a gap in research that investigates this association in significant depth, because the analysis of factors that affect international students’ ICC has so far focused on cultural values and culture shock (see for example, Bhugra 2015 and Shi and Wang 2014).

This doctoral study attempts to explore the potential impact of personality traits on international students’ ICC while studying at a university in the Kingdom of Saudi Arabia because in the context of increasing migration to Saudi Arabia, from cheap labour to international students (Karolak and Guta, 2014, p. 41), as well as enhanced globalisation and virtual communication, there is a growing need for the development of intercultural skills, yet a relative lack of research on the development of ICC and the variables that shape this development. The present study intends to reduce this gap in research by exploring the role of personality traits in ICC development among international students of Umm Al Qura University which provides a multicultural campus. Through exploring this role, the thesis also contributes to the broader academic literature on the link between personality traits and ICC.

### **1.1. Research Questions and Objectives**

This research explores the relationship between personality traits among international students in Saudi Arabia and their ICC. To understand this relationship, ICC will be placed within a specific context. The key research questions of this study are as follows:

1. Can specific personality traits of international students enhance the success (or failure) of ICC development?
2. How far can specific personality traits influence the ability of international students to communicate effectively in an intercultural context?

The project will explore the following:

1. How far personality traits can support the development of ICC among international students in Saudi Arabia; and
2. Which personality traits tend to enhance or challenge ICC development in this context.

## **1.2. Gaps in Knowledge**

Prior research has mainly focused on measuring ICC and on assessing the impact of studying abroad on its development (Deardorff, 2006, p. 245; Salisbury, 2011, p. 10; Stemler, Imada and Sorkin, 2014, p. 26). Although some researchers (van der Zee and van Oudenhoven, 2013, p. 929; Leung, Ang and Tan, 2014, p. 489) have explored psychological attributes (e.g. self-efficacy and self-confidence [Baier, 2005, p. 49]), that help students engage in intercultural communication, the contribution of personality traits to ICC is an under-researched area. Thus, the present study intends to address this gap by exploring the relationship between personality traits and ICC within the Saudi context.

The results of this study will help clarify how personality traits can enhance or inhibit the development of ICC. In particular, understanding the link between personality traits and ICC can help identify the types of students who are least likely to develop ICC. This knowledge can help inform education policymakers, cross-cultural human resource management and international organisations, such as the United Nations, European Union and Organisation of Islamic Cooperation. In the context of cross-cultural human resource management, understanding the association between personality traits and ICC also can be useful in designing recruitment and

assessment procedures by recognising job candidates and employees with high ICC who would be suitable for international positions.

In addition, the choice of the Saudi context helps close a significant gap in the research on ICC in Saudi Arabia. Karolak and Guta (2014, p. 41) specify two factors that make this setting worth exploring: (1) the increase in scholarship programmes that attract international students (2) the growth of intercultural communication in Saudi Arabia due to the country's shift towards a knowledge-based economy which leads to increasing the number of foreign employees joining the Saudi labour market. The Demographic Survey in 2016 reveals 11,677,338 non-Saudis working in Saudi Arabia (General Authority for Statistics, 2016, p. 49). These factors tend to be interrelated. The shift towards a knowledge-based economy signals dependence on knowledge, information and skills. These dependencies attract international students and require high levels of ICC. Still, although ICC plays a crucial role in enhancing both the employability of students and a knowledge-based economy, there is a shortage of research and scant empirical evidence on the development of ICC among international students in the Saudi context. A few recent studies have assessed Saudi students' ICC. For instance, Havril (2015, p. 555) conducted a case study that analysed opportunities for developing ICC among Saudi female university students and the ways to spread ICC values among them. Alalwi (2016, p. 23) find that Saudi students failed to develop ICC during their four-month study programmes in the United States. The present study will draw on this work and develop it further by focusing on personality traits.

As will be discussed in the literature review chapter, many studies have assessed international students' ICC in different Arab countries, like a study conducted by Palmer (2013, p. 59) in Syria, Jordan and Morocco, but so far no larger study seems to have assessed international students' ICC in Saudi Arabia in any significant depth. It is important to fill this gap, particularly now, as the increasing number of international students in this country all of whom would immensely benefit from well-developed ICC (Karolak and Guta, 2014, p. 41). This research also fills another gap



relating to the lack of studies that link ICC to personality traits. This goal is achieved by exploring the impact of personality traits on ICC among international students who come to Saudi Arabia to learn its language and culture. Linking personality theories and ICC is of essential importance, as such linkages help identify which individuals are the most and least likely to develop ICC.

### **1.3. Structure of the Thesis**

After these introductory remarks, Chapter 2, titled ‘Personality Traits and Intercultural Communication Competence’, traces the origin of the ICC concept and, by reviewing various conceptualisations of ICC, settles on the working definition that will be used in this thesis. After introducing various ICC models, the focus then moves to linking ICC to education abroad. Factors that affect the development of ICC among international students (e.g. cultural values and culture shock) also will be explored. The chapter introduces and reviews ICC assessment tools and provides a rationale for the choice of tool in the present research. The literature on personality traits is discussed, including several personality theories, all of which conceptualise and link social actors’ traits with their intercultural views. Chapter 2 also explores the association between personality traits and cultural adaptation, the latter of which is linked to ICC.

Chapter 3, titled ‘Personality Traits and Intercultural Communication Competence within the Saudi Context’, starts by delineating the effects of Saudi Arabian culture on various educational outcomes, including pronounced gender inequality in education. A discussion follows about recent trends in Saudi Arabia to reinforce a knowledge-based economy, which requires high ICC among students and employees in the country. The chapter also discusses how cultural and linguistic peculiarities of the Arabic language pose difficulties for international students, preventing them from fully integrating into the culture. ICC among expatriates, particularly foreign teachers, also is discussed, including the hindrances and opportunities for developing ICC among students in Saudi tertiary education. The chapter also discusses the views of Saudi students studying abroad, such as obstacles they face when relocating to a new country. Further literature

is reviewed to understand how researchers have attempted to enhance ICC abilities among Saudi students in an international context. Last, Chapter 3 introduces the research on personality traits within the Saudi context, with a particular emphasis on defining the gaps in the associated literature.

An initial goal of Chapter 4, titled ‘Methodology’, is to discuss the theoretical approach based on Costa and McCrae’s (1992a, p. 635) Five-Factor Model (FFM) of Personality, which describes the traits of neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. The chapter offers a rationale for using the FFM model as a primary personality framework that guides this study. Chapter 4 also outlines the usefulness of the FFM for addressing research questions and generating insights into how personality traits shape international students’ ICC. A discussion follows about the mixed-methods approach used to conduct this doctoral study that explores the relationship between the two phenomena. The ‘Methodology’ also explains how the sequential, explanatory design helps to refine my quantitative results and how qualitative data can build on quantitative results. In addition, it discusses the data collection instruments and the method of translating them, including a pilot study to ensure the reliability and validity of the translated versions. The chapter finishes by describing the data collection site and study participants.

Chapter 5, titled ‘Survey Results’, starts by examining the response rate on the questionnaires and the reliability and validity of the measures used to assess personality traits and ICC. A subsequent section in this chapter, titled ‘Demographic Data and ICC’ has two goals: (1) to assess the demographic characteristics of the sample and (2) to report the results of correlation analyses, at times 1 and 2, that explored the association between demographic data (i.e. age, gender, country of origin) and four ICC abilities (i.e. knowledge, attitude, awareness and skills). The subsection separately describes the findings, at times 1 and 2, concerning seven contextual factors (i.e. length of stay, type of housing, language speaking proficiency, meeting a cultural advisor, volunteering,

attending an orientation programme and conducting a cross-cultural research project). This subsection has two goals: (1) to analyse the data concerning participants' scores on each contextual factor and (2) to report the results of correlation and regression analyses that assessed the association between each contextual factor, four ICC abilities and final ICC scores. Following this, the chapter explores participants' scores on the four ICC abilities and on the Big Five personality traits. The chapter concludes by summarising the results of the correlation and regression analyses, which assessed the relationship between personality traits, ICC abilities and the final ICC scores at times 1 and 2. Finally, the researcher explains which findings will be explored further in interviews and why.

Chapter 6 'Interview Results' outlines and discusses the results of the interviews. After elaborating on the focus of the interviews and the characteristics of participants who took part in interviews (i.e. gender, country of origin, dominant personality trait, Arabic language oral proficiency and Arabic language test scores), the chapter discusses six themes that were extracted from participants' answers in the survey phase. The first theme relates to perceptions of Umm Al Qura University's orientation programme for international students. The second theme addresses how the perceived cultural distance between participants' home and host cultures affected their ICC development. The third theme explores participants' identification as conscientious and its effect on ICC. The fourth theme discusses how contact with the host culture affected participants' ICC. The fifth theme deals with participants' perceptions of how the diglossic nature of the Arabic language impacted their ICC development. The final theme explores participants' understanding of the trait of extroversion and the relationship between their extroversion and ICC. The results of interviews are thoroughly linked to the results of the survey at time 1, with an emphasis on bridging both results.

Chapter 7, 'Conclusion', starts by summarising the gaps in the literature this research sought to fill in, its research questions and the aims of the study. The chapter also summarises the results

obtained from the survey phase and connects them to specific research questions. It then summarises the results of interviews and comments on the findings for the relationship between demographic factors, contextual factors, ICC and personality traits. The thesis concludes by identifying the original contributions of this research, reflecting on the limitations of this research and making recommendations for future research.

## **2. Personality Traits and Intercultural Communication Competence**

This literature review outlines the scholarly work that defines, measures and identifies contributing factors to ICC. It also discusses the current state of scientific knowledge on personality traits using several theories and models to conceptualise personality traits and examine them in the contexts of intercultural views and behaviour in intercultural situations. This chapter also reviews Tett and Burnett's (2003, p. 505) Trait Activation Theory, Costa and McCrae's (1992a, p. 635) Five-Factor Model of Personality and van der Zee and van Oudenhoven's (2000, p. 291) Multicultural Personality Model. It explores the role of personality traits in intercultural adaptation, which is linked to intercultural communication. Taken together, this literature argues that personality traits are among the most critical elements involved in dealing with cultural differences and guiding intercultural decision making (Liles and Melissa, 2016, n.p.). It follows, then, that personality traits are related to ICC as well.

### **2.1. Intercultural Communication Competence**

This section defines ICC and discuss its importance for international students. An initial focus is on tracing the origins of ICC and discussing the dilemma caused by various definitions, models and dimensions of the same concept. The section then outlines the link between ICC and education abroad, delineating the elements of study programmes that foster ICC development among international students. A further focus is on discussing ICC from the perspective of cosmopolitanism, wherein ICC is perceived as a useful tool not only for enhancing human growth but also for fostering a sense of world citizenship (a sense of belonging to a global community rather than a particular nation). The concepts of ICC and cosmopolitanism are further linked to interculturality, which aids individuals' fostering of intercultural communication. Lastly, this section reviews applications of the Self-Categorisation Theory (Tajfel and Turner, 1991, p. 15) to

understand and critically interrogate the links between ICC, interculturality and intercultural citizenships.

### **2.1.1. Origins and Definitions of Intercultural Communication Competence**

According to Fantini (2012, p. 271), ICC as a concept has shown tremendous growth in the second half of the twentieth century. The ICC concept can be traced back to Dell Hyme's notion of 'communicative competence,' which was developed in 1966 in response to Chomsky's 'linguistic competence' (Rajagopalan, 2008, p. 404). Whereas linguistic competence 'includes the knowledge of vocabulary, grammar, semantics and phonology' (Littlewood, 2008, p. 503), communicative competence is 'a social judgment about how well a person interacts with others' (Lustig and Koester, 2010, p. 65). ICC thus is more similar to communicative competence than to linguistic competence, though some international students were found to frequently equate their ICC with their linguistic competence.

A research example can help explain why ICC should not be conceptualised in terms of linguistic competence. Marriott (1995, p. 198) found that Australia-born exchange students who studied in Japan and were confident in their Japanese language ability still used inappropriate or offensive titles and words due to misunderstanding the 'variation in politeness styles related to the use of honorifics'. This finding shows that linguistic competence does not necessarily guarantee ICC, and thus the two concepts should not be mixed. Ahmad and Ahmad (2015, p. 53) similarly argue that ICC does not require perfect knowledge of a host-culture language. To develop ICC in students, it is important to expand their knowledge beyond just language ability to include interaction strategies that help them communicate with people from different cultural backgrounds.

An important question to ask at this point is, if ICC is not a linguistic competence, then what is it? The broader literature on intercultural communication offers many definitions of ICC, each

offering a different context and angle (Spitzberg and Changnon, 2009, p. 5; Deardorff, 2011, p. 66). This lack of academic agreement on a constitutive definition of ICC has led to confusion of the term with concepts such as ‘cross-cultural adaption’, ‘intercultural sensitivity’, ‘intercultural literacy’ and ‘transcultural communication’ (Stemler, Imada and Sorkin, 2014, p. 25; Anderson, et al., 2006, p. 457). This, of course, is not to say that these terms are synonymous, but different researchers tend to equate ICC to various other concepts that do not necessarily have the same meaning. The definition of ICC also varies across cultural contexts, primarily in educational policies that are based on moral, religious, social and political values. It is, therefore, considered a chimera to establish an international agreement on a set of values and standards that compromise ICC.

Different researchers define ICC differently. In the context of international students’ mobility, Schmid (2009, p. 165) characterised ICC as ‘the fundamental acceptance of people who are different from oneself and who exist outside one’s own culture, or the ability to interact with them in a genuinely constructive manner which is free of negative attitude (e.g. prejudice, defensiveness apathy and aggression or the ability to create a synthesis, something which is neither “mine” nor “yours”’. Stier (2006, p. 6) differentiates between ‘content-competencies’ and ‘processual competencies’ in ICC. Content-competencies are the knowledge aspects of both ‘other’ and ‘home’ cultures, including ‘the knowledge of history, language, non-verbal behaviour, world-views, ‘dos and don’ts’, values, norms, habits, customs, taboos, symbols, behavioural patterns, traditions and sex roles’ (Stier, 2006, p. 6). This kind of static knowledge does not guarantee successful intercultural interaction. However, processual competencies relate to knowledge of ‘cultural peculiarities, situational conditions and actors’ that contribute to one’s intercultural interaction (Stier, 2006, p. 6).

As mentioned previously, there are various terms that pertain to ICC, including global competence, cultural intelligence, international competence, multiculturalism and cross-cultural

awareness (Fantini, 2009, p. 196). Koester and Lustig (2015, p. 20) posit that a cross-cultural study compares ‘a particular concept in two or more cultures’, whereas an intercultural study involves interaction and communication among people from different cultural backgrounds. Despite the lack of academic agreement on a constitutive definition of ICC, scholars tend to argue that ICC is an ‘effective and appropriate behaviour and expression of communication in intercultural situations’ (Deardorff, 2011, p. 66). In this sense, Fantini and Tirmizi (2006, p. 12) define ICC as ‘a complex set of abilities needed to be performed effectively and appropriately when interacting with others who are linguistically and culturally different from oneself’. It is remarkable that both definitions describe behaviour and performance as ‘effective’ and ‘appropriate’, but the question that arises is how this appropriate and effective behaviour looks in a given context. Lustig and Koester (2010, p. 67) define appropriate behaviours as ‘those behaviours that are regarded as proper and suitable given the expectations generated by a given culture’ and effective behaviours as those ‘that lead to the achievement of desired outcomes’.

In addition, scholars such as Deardorff (2009, p. 266) and Pusch (2009, p. 70) argue that acceptance and openness to similarities and differences among cultures are critical for ICC. In other words, ICC depends on more than just awareness of differences and mere contact with a foreign culture. Emert (2008, p. 221) argues that other factors play an essential role in ICC development, such as motivation and ability.

ICC comprises individuals’ knowledge, skills and attitudes, accompanied by the values the values they hold (Byram and Nichols, 2001, p. 5). Specifically, Fantini (2012, pp. 271-272) considers ICC as a complex array of knowledge, communication skills, critical abilities, awareness of sociocultural norms and positive attitudes toward cultural differences. Bennett (2011, p. 238) stresses that ICC is formalised through a mix of cognitive, behavioural and affective skills. The extent of individuals’ success in ICC development seems to rely on flexible communication, whereby the intercultural speaker can ‘mediate between a number of cultural perspectives and



between the target language and the first language' (Karabinar and Guler, 2013, p. 1317). Jackson (2011, p. 82) depicts intercultural speakers as those who 'become more aware of how they and their fellow citizens conceptualise, understand and experience their own national identities and how this may affect their relations with others'. Hence, the diverse cultural identities are well-recognised in intercultural communication, as they vary within and across cultures.

Although the initial attempts to conceptualise and define ICC evoked much debate among researchers and educators, today ICC is understood as the combination of knowledge and skills that allows individuals to successfully interact with people from different cultures by sharing messages, demonstrating respect and understanding each other's cultural identities to achieve desired personal and social outcomes (Wiseman, 2002, p. 209). This thesis adopts this definition of ICC, because it grasps the importance of ICC for successful intercultural communication.

This doctoral thesis builds on the concepts and research findings described herein. In terms of Stier's (2006, p. 6) distinction between 'content-competencies' and 'processual competencies', it focuses on processual competencies and dynamic knowledge, as their development involves both (a) intrapersonal competencies that require cognitive and emotional skills and (b) interpersonal competencies that require interactive skills (Stier, 2006, p. 6). This conceptualisation appears sufficiently detailed to illuminate the cognitive, emotional and interpersonal aspects of ICC. It also builds on research by Lustig and Koester (2010, p. 67), Deardorff (2009, p. 266), Pusch (2009, p. 70) and Emert (2008, p. 221), who state that ICC depends on culturally appropriate behaviours, acceptance and openness to similarities and motivation and ability to develop relevant skills. This thesis argues that personality traits also determine ICC development.

### **2.1.2. Models of Intercultural Communication Competence**

Theorists have proposed several models to identify the primary elements of ICC. For instance, the Process-Oriented Model put forward by Deardorff (2006, p. 241) asserts that the development of ICC is a continually evolving, four-stage process. In the initial stage, it is necessary to shape

attitudes, such as tolerance and respect for culturally diverse people, and curiosity to engage in intercultural communication (Deardorff, 2006, p. 241). An appropriate attitude allows for development of knowledge, skills and awareness to deepen understanding of culture-specific and socio-linguistic issues and facilitate interpretation, analysis, communication and resolution of intercultural conflicts. Developing such knowledge, awareness and skills creates empathy, flexibility and adaptability (internal outcomes), thus increasing successful intercultural communication (external outcomes) (Deardorff, 2006, p. 241). When assessing international students' ICC, the present thesis uses Fantini's (2009, p. 205) Assessment of Intercultural Competence (AIC) tool, which is based on this model and measures ICC-related knowledge, attitude, awareness and skills.

Another model, the Integrated Model of Intercultural Communication Competence by Arasaratnam, Banerjee and Dembek (2008, p. 103), specifies that ICC depends on five interrelated aspects: empathy, experience, motivation to interact with culturally diverse people, positive attitudes towards these people and a desire to listen. Each of these five variables engages in 'a cyclical relationship' with other variables in the model (Arasaratnam, Banerjee and Dembek, 2008, p. 107). This model has been criticised, however, for its complexity and relatively limited predictive ability (Morgan, 2011, p. 11). Additionally, other authors state that ICC may be developed even if a person possesses only empathy (Arasaratnam, Banerjee and Dembek, 2008, p. 107). The present thesis accepts that ICC can depend on various factors, but it rejects the idea that ICC develops from empathy alone, as this appears to be an oversimplification of the ICC development process.

Despite the critical role of the mentioned models in the clarification of what constitutes ICC and despite the present researcher's choice of using the former model in this thesis, both models have limitations. First, neither has been verified in specific cultural and educational contexts (Arasaratnam, Banerjee and Dembek, 2008, p. 104). Second, they were developed based on the

Western perspective, which describes a tolerant Western participant who can adjust quickly to culturally diverse environments (Deardorff and Edwards, 2013, p. 163; Havril, 2015, p. 559). This individualistic perspective cannot be successfully applied to the analysis of collectivistic societies, such as Saudi Arabia. Moreover, these models do not account for differences in Western and Saudi educational systems. Whereas the former system reinforces students' individualism, independence and self-realisation, the latter is characterised by extensive memorisation and a teacher-centred approach (Shaw, 2009, p. 9; Razek and Coyner, 2013, p. 106). The present research hopes to engage in an indirect evaluation of the Process-Oriented Model's (Deardorff, 2006, p. 241) usefulness in guiding understanding of ICC development in a non-Western context, as achieved by using a measurement tool based on this model.

International communication among Saudi students living in a segregated society differs from that of Western students living in mixed-gender societies (Alhazmi and Nyland, 2013, p. 347). Khan, et al. (2016, p. 51) emphasised this notion by studying gender dynamics in intercultural service interactions and reveal that Arab customers prefer to interact with same-gender employees. Although they did not limit their analysis to the Saudi context, their findings demonstrate that gender segregation is a characteristic aspect of the Arab world. In the light of these considerations, the present research hopes to integrate non-Western perspectives of individuals who live in a non-Western society with an existing ICC model, which could increase the intercultural validity of the same models (Havril, 2015, p. 559).

### **2.1.3. Cosmopolitanism and Intercultural Communication Competence**

In this section, it appears relevant to introduce the concept of cosmopolitanism. Initially, however, this study did not assess the degree to which students agreed with the perspectives of cosmopolitanism. Yet, this concept helps explain why ICC is an important ability that should be addressed in research and fostered among international students. ICC offers people an opportunity for embracing global citizenship (Xiaochi, 2012, p. 62). The present thesis adopts this view when

explaining the virtues of ICC and contends that ICC helps people overcome their pronounced dislikes of each other's cultural differences.

Cosmopolitanism originated around 412 BC in Greece, where philosophers emphasised human beings' natural belongingness to the whole world (Inglis, 2014, p. 71). For instance, when asked where he came from, the prominent Greek philosopher Diogenes of Sinope said, 'I am a citizen of the world' (Held, 2010, p. 138). Following the views of such philosophers, cosmopolitanism emerged as a philosophy emphasising that all human beings belong to the same community (van Hooft, 2014, p. 77). Inglis (2014, p. 72) calls this community the 'world state', which includes all people, regardless of their race, ethnicity and beliefs. Cosmopolitan citizens thus 'experience a high degree of cultural diversity through migrational inflows and openness to such diversity' (Benessaieh, 2010, p. 17). The primary characteristic of a cosmopolitan community relates not only to the inclusion of individuals from different backgrounds but also a mutual respect among members (Delanty, 2012, p. 43). Thus, individuals who adopt cosmopolitanism feel satisfied when they live close to individuals who are different from them and they tend to interact frequently with these individuals.

The peace activist Thich Nhat Hanh (as cited in Held, 2010, p. 145) argues that cosmopolitanism denotes individual expression of compassion for and understanding of people and animals who are inherently different. According to his perspective, people can become cosmopolitan citizens by expressing tolerance towards diversity. Australian philosopher Stan van Hooft (2014, p. 79) differentiates cosmopolitanism from the current trend of nationalism, wherein political systems focus exclusively on supporting the interests of members of a particular nation while neglecting those from other nations. According to van Hooft (2014, p. 79), global political thinking should abandon its nationalistic tendencies and instead focus on systems wherein all individuals are treated equally.

Globalisation is a step towards establishing cultural freedoms of language, religion and values. Both the Internet and increased mobility of individuals throughout the globe help society to become more interconnected and supportive of different people's needs (Gilroy, 2013, p. 134). As the influx of foreigners increases around the globe, it helps to connect individuals with different cultural backgrounds (Munck, 2013, p. 228). ICC plays a crucial role in this interconnectedness. As stated by Sharifian (2013, p. 8), ICC is a prerequisite for fostering mutual understanding between different people and for escaping nationalism and intolerance of diversity. If all people become interculturally competent enough to effectively communicate with individuals from different countries, society becomes more cosmopolitan. This argument helps explain why ICC is an essential feature of human development.

#### **2.1.4. Interculturality and Intercultural Communication Competence**

A particular way that ICC aids human growth and interconnectedness is through fostering interculturality (Byram, 2016, 25). Interculturality is defined as 'a set of multi-faceted processes of interaction through which relations between different cultures are constructed' (Dervin and Risager, 2014, p. 18). Holliday (2017, p. 211) notes that students who adopt an intercultural model of interaction show respect towards diversity and thus forge links between cultures. They do not merely passively accept that society is increasingly multicultural; rather, they promote dialogue and interaction between people from different cultures (Holliday, 2017, p. 212). In this way, they challenge self-segregation and nationalist tendencies within a given culture (Dervin, Gajardo and Lavanchy, 2011, p. 148).

In a qualitative study of 26 Mandarin students in the United Kingdom, Jin (2016, p. 320) finds that ICC fosters interculturality by helping international students develop an intercultural identity. Specifically, Mandarin students who developed knowledge of their host culture, skills for understanding others' perspectives and positive attitudes towards diversity tend to identify themselves as 'intercultural citizens', which is akin to cosmopolitan citizens. These students

further report that they engage in effective and appropriate intercultural relations due to their ICC and intercultural identity (Jin, 2016, p. 320). In a theoretical paper, Byram (2016, p. 27) similarly argues that ICC promotes intercultural citizenship, because people's positive attitudes towards interculturality help them to adopt an intercultural model of interaction and develop a social identity in which all groups feel a sense of belonging. Therefore, both authors of qualitative studies and prominent theorists emphasise the connection between ICC, interculturality and intercultural citizenship.

Existing theories support the idea that ICC can aid the development of interculturality and intercultural citizenship. A key aspect of this context is the Self-Categorisation Theory (Tajfel and Turner, 1991, p. 15), which argues that people from a specific culture tend to perceive other members of that culture as the in-group and members of a different cultures as the out-group. The theory also posits that categorisations of in-group and out-group foster stereotypical behaviour and discrimination. Thus, the in-group will likely discriminate against the out-group, only because the latter group has different cultural norms, beliefs and behaviours (Turner, 2010, p. 238). When applied to the development of ICC and intercultural citizenship, the Self-Categorisation Theory (Tajfel and Turner, 1991, p. 15) suggests that ICC helps bridge cultures by transforming the in-group members' stereotypical assumptions about the out-group, therefore aiding their perception that all individuals, regardless of cultural background, can be perceived as in-group members (Kudo, Volet and Whitsed, 2011, p. 109). Similarly, Rings (2016, pp. 10-11) suggests that interculturality helps transcend boundaries between self and others, thus forming a pool of global cultures.

Some theorists criticise the concept of interculturality. For example, Shohat and Stam (2012, p. 120) argue that interculturality is 'an invisible vantage point presumed to be universal from which it can appreciate or depreciate other cultures'. They suggest that even when people stop perceiving members of other cultures as out-group members, they still hold stereotypical attitudes towards

other cultures. According to Martin and Nakayama (2013, p. 111), this insular, frequently binary and nearly always hierarchical distinction between in-groups and out-groups can be found among political proponents of interculturalism. However, the present research adopts the view that ICC reduces distinctions between in-groups and out-groups, primarily because research shows that individuals with high ICC tend to hold less stereotypical beliefs towards members of other cultures (Holliday, 2017, p. 211; Jin, 2016, p. 320).

#### **2.1.5. Education Abroad and Intercultural Communication Competence**

The link between education abroad and ICC has been extensively studied in the literature. Studying abroad is an important indicator of improved ICC (van de Berg, Connor-Linton and Paige, 2009, p. 25; Poyrazli, et al., 2002, p. 623). ICC develops in two key settings: (1) informal visits to other cultural environments and (2) formal engagements, activities and tasks at tertiary institutions in other cultural environments (Huber and Reynolds, 2014, p. 7). In this respect, Engle and Engle (2003, p. 8) identify seven defining elements of overseas programmes:

1. 'Length of student sojourn;
2. Entry target-language competence;
3. Language used in course work;
4. Context of academic work;
5. Types of student housing;
6. Provisions for guided and structured cultural interaction and experiential learning; and
7. Guided reflection on the cultural experience' (Engle and Engle, 2003, p. 8).

Interestingly, three of these elements depend mainly on interactions with the new environment. For example, it is asserted that 'immersing students from different cultural backgrounds together has positive effects on learning outcomes, retention, satisfaction, leadership skills and civic engagement' (Stemler, Imada and Sorkin, 2014, p. 28). In addition, van de Berg, Connor-Linton and Paige (2009, p. 21) reveals that the cultural heterogeneity of students results in significant

ICC gains. Moreover, Gutel (2008, p. 178) finds that host contact is an essential factor in ICC development, as it exposes international students to the target culture and puts ICC skills into practice. Brown's (2009a, p. 440) study documents students' perspectives towards contact with hosts, reporting that 'the absence of host contact constituted a lasting source of disillusionment and disenchantment'. These findings appear especially relevant for the present research conducted in the Saudi context, where international students' contact with the host culture tends to be limited. It will be intriguing to see the degree to which international students have developed ICC in such a context.

In terms of linguistic proficiency, Poyrazli, et al. (2002, p. 633) argues that international students' inability to communicate in the host country's language is one of the most important factors preventing them from social interaction with locals and causing them stress. They argue that students who communicate in the host country's language experience better psychological well-being in comparison to those who have difficulties. Fantini (2012, p. 267) emphasises that 'as one gains in proficiency, the more likely one will begin to transcend and transform one's native system for as one learns to see things anew'. According to Chaney and Martin (2007, p. 81), language barriers might hinder international students' social involvement. On the one hand, these students cannot express their thoughts and feelings to local students and teachers. On the other hand, domestic students usually do not have the patience to interact with international students with inadequate language proficiency (Harrison and Peacock, 2010, p. 877). Moreover, it is found that there is a negative association between depression and foreign language proficiency among students (Ward, Bochner and Furnham, 2001, p. 91). Yang, Noels and Saumure (2006, p. 491) finds that self-confidence in using a second or foreign language is crucial for intercultural gains. Together, the findings reviewed in this section suggest that international students can develop ICC by immersing themselves in the environment, increasing contact with students from the host country and learning the host country's language.



### **2.1.6. Factors Affecting Intercultural Communication Competence**

This section identifies two factors that, according to the literature, affect ICC: cultural values and culture shock. It discusses the most relevant empirical studies to provide a background to this research which investigates the effects of personality traits on ICC.

#### **2.1.6.1. Cultural Values**

To understand human behaviour in general and international students' intercultural adaptation in particular, researchers must consider cultural makeup (Brady, Fryberg and Shoda, 2018, p. 11407). Regardless of their cultural backgrounds, people possess specific characteristics that are more or less likely to foster their intercultural adaptation (Sam and Berry, 2010, p. 479). As cultural beings, people's attitudes and behaviours are affected by culture-specific norms (Brady, Fryberg and Shoda, 2018, p. 11406). Within the broader literature on intercultural adaptation, researchers emphasise the effects of cultural orientation on international students' ICC (Chiu, et al., 2013, p. 220). High ICC, defined as the possession of cognitive, affective and behavioural skills that aid international students' communication with host country nationals, plays a crucial role in fostering intercultural adaptation (Bennett, 2011, p. 238).

When examining the effects of culture on ICC and intercultural adaptation, previous studies focus on specific cultural values of collectivism-individualism. Collectivists prioritise group over individual values, whereas individualists prioritise individual over group values. In a study of 483 immigrants, Bhugra (2015, p. 90) finds that compared with individuals from individualistic cultures, those from collectivist cultures experience more difficulty in intercultural communication and adaptation when moving to a individualistic culture; conversely, those from individualistic cultures experience more challenges when communicating and adapting within a collectivist culture.

Whether collectivistic or individualistic individuals are more likely to adapt to new cultural contexts, regardless of their value orientation, is open to debate. Randall (2013, p. 100) suggests that collectivistic individuals adapt more easily due to the significance they place on social ties. In contrast, Fischer and Mansell (2009, p. 1355) suggest that individualistic people adapt more easily due to their individual-focused attachment. Lin, et al. (2018, p. 88) argue that this inconsistency in predictions and associated findings stems from past studies' focus on merely one aspect of culture, (i.e. collectivistic versus individualistic values) while ignoring other cultural differences (i.e. strength of social norms).

Apart from collectivistic or individualistic orientations, cultures can be differentiated based on the degree to which they adopt gendered traits. Social psychologist Hofstede (2011, pp. 8-10) argues that there are masculine and feminine cultures: masculine cultures pressure men towards achievement, competition, heroism, assertiveness and material success and pressure women towards nurturing and caregiving duties; feminine cultures tend to be more balanced, such that both men and women can pursue traditionally masculine or feminine duties. Research demonstrates that individuals from masculine cultures find it challenging to adapt to feminine cultures and vice versa, because these cultures tend to be culturally distant (Redmond, 2000, p. 154). Routamaa, Tsuzuki and Brandt (2010, p. 280) stress that a pronounced cultural distance hinders adaptation, because individuals from masculine cultures often choose to interact with individuals from other masculine cultures, and individuals from feminine cultures exhibit a preference for intercultural communication with individuals from other feminine cultures.

Lugrin, et al. (2014, p. 12) discuss how these cultural differences create challenges for international students, even with mundane tasks. For instance, if a student from a feminine culture requests an extension to care for a sick family member, professors in a masculine-oriented culture may perceive this excuse as weak and deny the extension, whereas professors in a feminine-oriented culture would understand the student's needs and allow the extension. Furthermore, if a

student from a masculine culture requests an extension to improve their assignment grade, a professor at a masculine-oriented university likely would grant the extension, but a professor at a feminine-oriented university might not. Such differences in home and host cultural orientations harm the communication between students and other individuals, diminishing adaptation to and opportunities for effective intercultural communication.

Importantly for present research purposes, the culture in Saudi Arabia is recognised to be predominantly masculine (Cassell and Blake, 2012, p. 152). This categorisation implies that Saudi nationals tend to emphasise hard work, success, competition and assertiveness over care, social relationships and nurturance (Hofstede, 2011, p. 9). Alamri, Cristea and Al-zaidi (2014, p. 293) argue that international students from predominantly feminine cultures find it challenging to adapt to Saudi culture and communicate effectively with Saudi nationals, precisely because of the pronounced cultural difference between their host and home cultures. As it will be revealed later in this thesis, many international students who participated in this research came from Asian and European countries, which tend to be more feminine than masculine (Fernandez, et al., 2017, p. 43). Based on arguments presented in this section, these students may find it particularly challenging to develop ICC in the Saudi context.

#### **2.1.6.2. Culture Shock**

This section describes the culture shock phenomenon and how it is linked with ICC. It is commonly suggested that international students face different culture-related problems due to differences between their home and host countries (Winkelman, 1994, p. 121; Shi and Wang, 2014, p. 24). Therefore, international students should be provided with assistance to address differences in their perceptions and make cultural transitions (Zhou, et al., 2008, p. 63). Otherwise, symptoms of culture shock may negatively affect their ICC (Shupe, 2007, p. 764).

Oberg (1960, p. 177) first described culture shock as a consequence of anxiety and strain resulting from contact with a new culture. Winkelman (1994, p. 121) adds that culture shock is associated

with feelings of confusion, loss and impotence caused by different cultural cues and social rules. There are three causes of this phenomenon: (1) loss of familiar cues, (2) breakdown of interpersonal communication and (3) identity crisis (Milstein, 2005, p. 219). International students in a new culture experience psychological and physical reactions that include emotional, interpersonal, social and cognitive components resulting from changes in socio-cultural relations (Winkelman, 1994, p. 121). In accordance with Shi and Wang (2014, p. 24), newcomers might avoid social events and demonstrate little interest in anything that differs from their home cultures, all of which can hamper their ICC. Culture shock is especially relevant for those who are alone in the new cultural environment (i.e. they have no friends or family from their home country). As revealed by Ward, Bochner and Furnham (2001, p. 92) and Shi and Wang (2014, p. 24), these persons tend to isolate themselves from others and avoid interactions with the locals, which further limits their ICC.

Several theoretical frameworks describe culture shock, including the stress and coping approach (Affect), culture learning (Behaviour) and social identification model (Cognition) of adaptation, or ABC model (Zhou, et al., 2008, p. 73). According to the stress and coping approach, international students learn techniques to manage stress associated with culture shock (van der Zee and van Oudenhoven, 2013, p. 931). The culture learning approach implies that cross-cultural travellers acquire and develop culturally relevant skills that are directly related to ICC and help them to adapt to a new cultural environment (Ward, Bochner and Furnham, 2001, p. 20). The social identification or cognition approach involves changes in a person's cultural identity as well as inter-group relations to successfully complete a cross-cultural transition (Mak, Brown and Wadey, 2014, p. 493). Out of these three approaches, the culture learning one most thoroughly explains why culture shock may hamper students' ICC.

Culture shock comprises several stages, including the honeymoon, crisis, positive attitude and adjustment stages (Winkelman, 1994, p. 122). In the honeymoon stage (Oberg, 1960, p. 177),

newcomers (e.g. international students) are fascinated by and excited about the novelty of their experience of a new culture and they are positively surprised by a new culture because of their limited knowledge and exposure to this culture (Winkelman, 1994, p. 122). These newcomers often do not have to directly deal with local institutions, which increases their positive attitudes towards the host country's culture (Ward, Bochner and Furnham, 2001, p. 88). It was noted that these positive attitudes and feelings also are associated with voluntary decisions to come to a new country (Oberg, 1960, p. 177).

During the crisis stage, newcomers discover aggressive attitudes and stereotyping (Winkelman, 1994, p. 122). Ward, Bochner and Furnham (2001, p. 81) describe this stage as 'characterised by feelings of inadequacy, frustration, anxiety and anger'. As a result, a crisis may occur, which, in turn, may lead them to feelings of helplessness and confusion (Winkelman, 1994, p. 122). At the crisis stage, international students tend to wish to go home which is another outcome of increasing problems as well as negative experiences (Ward, Bochner and Furnham, 2001, p. 78).

During the stage of development of a positive attitude, social actors usually realise that they have to accept differences between their home and host country cultures to adapt to this new environment (van der Zee and van Oudenhoven, 2013, p. 928). As reported by Ward, Bochner and Furnham (2001, p. 78), humour can play an important role in this ability to adapt, such that situations or factors that once created hostility still may be perceived critically but are taken less seriously. However, the initial problems with the host country's culture still exist at this stage (Ward, Bochner and Furnham, 2001, p. 82).

Adjustment is the final stage of culture shock, outlined by Oberg (1960, p. 177). At this stage, international students generally accept the host country's culture as another way of living (Ward, Bochner and Furnham, 2001, p. 81). According to Shupe (2007, p. 752), during the adjustment stage, newcomers realise and accept that it is impossible to change the host culture. They instead understand that different countries have different traditions and customs, which enhances their

ICC. At this stage, international students realise that they live in a new cultural environment (Ward, Bochner and Furnham, 2001, p. 81), and they adapt to achieve their professional and personal goals (Winkelman, 1994, p. 122). However, full assimilation is almost impossible (Winkelman, 1994, p. 122), because ‘these aspects of culture are deep-rooted and change may be seen as a threat to identity’ (Cortazzi and Jin, 1997, p. 88). Instead, they tend to develop a bi-cultural identity (Zhou, et al., 2008, p. 67). This identity allows them to operate in both environments effectively and to ‘integrate the behaviours, values and identity pertaining to each of their two cultures’ (Nguyen and Benet-Martinez, 2013, p. 123). The development of a bi-cultural identity is another factor that contributes to ICC, as such identity helps individuals to understand and feel part of different cultures (Nguyen and Benet-Martinez, 2013, p. 127).

The stages of culture shock outlined by Oberg (1960, p. 177) are widely used to describe cultural adaptation and ICC development in various contexts, including education (Ward, Bochner and Furnham, 2001, p. 124). However, this model has limitations. For instance, the stages of culture shock can be viewed as generic and unified (Ward, Bochner and Furnham, 2001, p. 252). Although the process of cultural adaptation is considered to be the same, regardless of area or domain, religious and traditional differences can affect how newcomers adjust to a new culture (Shi and Wang, 2014, p. 27). Therefore, the role of these differences in cultural adaptation should be given close attention by researchers when examining international students’ cultural adjustment and ICC.

The present research did not assess participants’ levels of culture shock for two reasons. Initially, participants’ culture shock experience was not considered relevant for this research, which focused on international students’ ICC and personality traits. Although culture shock could help identify barriers to ICC, the construct did not appear particularly useful when exploring the relationship between personality and ICC. Second, the inclusion of a culture shock measure would

make this complex study even more complicated. Still, the literature review includes an overview of culture shock, because this construct may be useful in interpreting the results of this research.

International students report that they feel comfortable sharing with peers who are going through similar cultural adjustments (Harrison and Peacock, 2010, p. 894), even if these students do not belong to the same culture (Zhou, et al., 2008, p. 70). Although international students may adopt various aspects of the host country's culture, their ability to successfully interact with local social members may be highly limited (Mak, Brown and Wadey, 2014, p. 492; Zhou, et al., 2008, p. 70). Locals' lack of understanding of international students' culture, traditions and needs is a limiting factor in the effectiveness of interpersonal communication and development of ICC (Mak, Brown and Wadey, 2014, p. 493). International students in a new country often lose the shared identity that they had with friends and family members in their home country, causing feelings of loneliness and homesickness that are exacerbated by their inability to share experiences with other individuals (Ward, Bochner and Furnham, 2001, p. 153). These students tend to become socially isolated, which reduces their ICC (Baier, 2005, p. 32).

This study did not explore international students' social isolation or opportunities for sharing their experiences with others. Including these variables would make the study more complicated, so the focus was limited to contextual variables that pertained most directly to students' experiences at the university. The present research also did not assess participants' experiences of heritage identity loss, as this was beyond the scope of the thesis. Although these variables would be useful in explaining why some students develop ICC and others do not, they were not considered relevant for the relationship between personality traits and ICC. As most students in this research came from Asia and countries that are culturally similar to Saudi Arabia, it can be assumed that most did not experience such identity loss. Thus, excluding these measures should not affect the results of this study.

## **2.2. Assessment of Intercultural Communication Competence**

The literature cites numerous instruments for measuring ICC (Fantini, 2006, p. 30). This section introduces some of these tools, most of which adopt either a quantitative or a qualitative assessment approach. It also identifies which aspects of ICC the tools assess to improve understanding of ICC. Last, this section reviews the three most commonly used tools for measuring ICC.

### **2.2.1. Tools for Assessing Intercultural Communication Competence Assessment**

Historically, educational institutions have not assessed ICC among international students before their acceptance to a chosen degree of study. Instead, they assess students' English language abilities via standardised measurements, such as the International English Language Testing System and Test of English as a Foreign Language, which measure linguistic skills in speaking, reading, listening and writing (Chalhoub-Deville and Turner, 2009, p. 228). These language tests were developed before researchers introduced the ICC concept (Chalhoub-Deville and Turner, 2009, p. 228). Since then, there has been widespread debate regarding whether language tests should assess intercultural abilities. Brown and Hudson (1998, p. 657), for instance, argue that ICC as a concept is not relevant when selecting students for international degree courses. Others claim that standardized language tests already have cultural elements that make additional components, such as ICC assessment, unnecessary (Bennett, 2009, p. 124). Other researchers disagree, positing that ICC is not adequately measured via standard language tests and, given its importance for international students' academic success and well-being, additional measures should be developed (Deardorff, 2009, p. 266; Fantini, 2009, p. 205).

Fantini (2006, pp. 87-93) lists more than 90 tools for assessing ICC, all of which vary in their targets, commercial versus non-commercial availability, reliability and validity. Most account for individual-level variables, including attitudes, personality, knowledge, competencies and skills



(Byram and Nichols, 2001, p. 5; Lazar, et al., 2007, p. 26). ICC comprises all these factors (Deardorff, 2009, p. 266). Some tools also consider contextual factors that affect respondents' ICC, which is important because, as stated by Modiga (2014, p. 289), contextual factors also influence human behaviour.

According to Yost and Lucas (2002, p. 153), ICC assessment tools can be divided into two groups: quantitative and qualitative. This section reviews the quantitative Intercultural Development Inventory (IDI) and Cross-Cultural Adaptability Inventory (CCAI) and the qualitative Social Network Analysis (SNA). The IDI and CCAI are widely used in higher education, and the SNA is used in high-profile empirical studies (Lombardi, 2010, p. 15).

In the context of education, Byram, Gribkova and Starkey (2002, pp. 7-9) suggest five features that help evaluate ICC:

1. 'Intercultural attitudes (*savoir être*): curiosity and openness, readiness to suspend disbelief about other cultures and belief about one's own culture.
2. Knowledge (*savoirs*): understanding of social groups and their products and practices in one's own and in one's interlocutor's country and of the general processes of societal and individual interaction.
3. Skills of interpreting and relating (*savoir comprendre*): ability to interpret a document or event from another culture and to explain it and relate it to documents or events from one's own.
4. Skills of discovery and interaction (*savoir apprendre and faire*): ability to acquire knowledge of a culture and cultural practices and the ability to operate knowledge, attitudes and skills under the constraints of real-time communication and interaction.
5. Critical cultural awareness (*savoir s'engager*): ability to evaluate, both critically and on the basis of explicit criteria, the perspectives, practices and products in one's own and other cultures and countries' (Byram, Gribkova and Starkey, 2002, pp. 7-9).

Each feature involves a unique set of assessment methods and techniques. For instance, the knowledge dimension uses indirect testing procedures, and the assessment of the know-how dimension relies on tasks. The assessment of the being dimension is based on self-evaluation. Authors who assess ICC among international students categorise Byram, Gribkova and Starkey's (2002, p. 9) features into two types of skills: those for interpreting and relating and those for discovery and orientation. Following Jon (2013, p. 456), this research condensed these five features into four components of ICC: intercultural knowledge, attitudes, awareness and skills. These four ICC components are considered the most critical elements of the Process-Oriented Model of ICC put forward by Deardorff (2006, p. 241).

### **2.2.2. A Review of the Tools for Assessing Intercultural Communication Competence**

This section reviews three ICC assessment tools that were considered but not selected as a means of measuring international students' ICC. Such a review is relevant, because it demonstrates the researcher's understanding of the tools and provides a rationale for why they were not used.

The first measurement, the Intercultural Development Inventory (IDI), is used to understand how social actors perceive and construe the cultural differences described in the Developmental Model of Intercultural Sensitivity (Hammer, Bennett and Wiseman, 2003, p. 422). IDI scales can empirically test whether higher total IDI scores lead to less cultural stress and less resistance to diversity initiatives (Hammer, Bennett and Wiseman, 2003, p. 441). The Developmental Model of Intercultural Sensitivity measures individual attitudes towards other cultures along three ethnocentric stages and three ethno-relative stages (Hammer, Bennett and Wiseman, 2003, p. 424). Denial, defence and minimisation can be attributed to the ethnocentric stages, and acceptance, adaptation and integration belong to the ethno-relative stages (Shupe, 2007, p. 750). In accordance with Hammer, Bennett and Wiseman (2003, p. 423) and Hernandez and Kose (2012, p. 515), the ethnocentric orientations apply when a person's culture is experienced as central to reality, and ethno-relative orientations usually apply when a person's culture is

experienced within another culture. The Developmental Model of Intercultural Sensitivity theory stresses that social actors with complex cultural categories can effectively navigate cultural differences (Ali, van der Zee and Sanders, 2003, p. 563). The IDI, which takes about 15 minutes to complete, has 50 items (10 items on each dimension) and uses a 5-item Likert scale ranging from 'disagree' to 'agree' (Matsumoto and Hwang, 2013, p. 860; Sinicrope, Norris and Watanabe, 2007, p. 18). It is available in 17 languages, including English, Arabic, French, Russian and Spanish (Sinicrope, Norris and Watanabe, 2007, p. 34). Many published articles and PhD theses use this self-report and peer-report instrument as a tool for data collection (Motsumoto and Hwang, 2013, p. 860). The IDI has strong cross-cultural validity and statistic reliability ranging from 0.74 to 0.91 for Developmental Model of Intercultural Sensitivity dimensions (Hammer, 2011, p. 474; Sinicrope, Norris and Watanabe, 2007, p. 19). However, the survey costs up to \$2000 and requires a 3-day certification seminar (Sinicrope, Norris and Watanabe, 2007, p. 34). Thus, despite its perceived usefulness, the IDI was not used in the present research.

The second tool is the Cross-Cultural Adaptability Inventory (CCAI), which is a self-report tool that assesses cross-cultural effectiveness and adaptability (Davis and Finney, 2006, p. 318; Sinicrope, Norris and Watanabe, 2007, p. 20). The CCAI helps individuals identify the weaknesses and strengths of their intercultural communication skills (Williams, 2005, p. 360), thus allowing them to work on their ICC (Fantini, 2006, p. 87). CCAI measures four dimensions: flexibility and openness (15 items), emotional resilience (18 items), perceptual acuity (10 items) and personal autonomy (7 items) (Davis and Finney, 2006, p. 319; Sinicrope, Norris and Watanabe, 2007, p. 20). It comprises 50 items using a 6-point Likert scale ranging from 'definitely not true' to 'definitely true' (Sinicrope, Norris and Watanabe, 2007, p. 20), and it costs around \$40 (Lombardi, 2010, p. 16). Still, little evidence can be found regarding the reliability and validity of this instrument, so it was not used in the present research.

Finally, Social Network Analysis (SNA) can be defined as ‘research that seeks explanations of how social structure is collectively constructed through interactions or relations between individuals and the impacts of the resulting social structure on these and other phenomena’ (Chi and Suthers, 2015, p. 109). SNA is a descriptive method that lacks ‘a (native) theoretical understanding’ (Borgatti and Halgin, 2011, p. 1168). It allows researchers to investigate ‘different kinds of dyadic links both analytically and theoretically’ (Borgatti, et al., 2009, p. 893). However, it is not always possible to explicitly define networks, because boundaries ‘may be fuzzy or uncertain’ (Borgatti and Halgin, 2011, p. 1168). In SNA, a network of nodes is constructed by actors. The researcher then defines a set of relational ties to represent shared membership, location, relations due to roles and perceptions, interactions or flow (Borgatti, et al., 2009, p. 893). Innate characteristics such as age, gender or nationality can be used as independent node attributes (Chi and Suthers, 2015, p. 109). Thus, the same actors can have the same set of attributes across different networks, but the ties linking these actors can be different in each given network (Borgatti and Halgin, 2011, p. 1169). For example, these ties can be impacted by friendship, communication or collaboration (Borgatti and Halgin, 2011, p. 1169). Because researchers do not have full access to these data, some ties that impact social structure may be overlooked, which represents a major limitation of the SNA approach.

According to previous network theories, the more social connections a person has, the more social support that person can access (Ong and Ward, 2005, p. 637; Smith, 2013, p. 11). Furthermore, Jacob and Greggo (2001, p. 73) demonstrate a positive correlation between the number of social connections and cultural adaptation. According to the SNA approach, international students have three kinds of social networks: (1) ‘the mono-cultural network comprising close friendships with other co-nationals, which tends to be the international students’ primary social network; (2) the bicultural network comprised of locals including academics, students and advisors, which tends to be their secondary network; and (3) the multicultural network involving internationals from other countries, which tends to be the third network’ (Kashima and Loh, 2006, p. 472). It is

commonly accepted that there are two major levels of analysis, namely ego-centric and full-network (Chi and Suthers, 2015, p. 109). In the ego-centric or individual approach, conclusions about the individual actors are drawn from the analysis of networks surrounding each node. In the full-network or global approach, the entire network is analysed to draw conclusions about the social system represented by the network. Regardless of the analysis, the claims made in network research are usually about specific relationship patterns, as well as opportunities and challenges in individual or group results (Borgatti and Halgin, 2011, p. 1169).

Chi and Suthers (2015, pp. 109, 111) use the SNA approach in their empirical study of around 300 students from over 40 countries. Using self-administered, online questionnaires to assess ICC as a relational construct, they find a positive relationship between sociability and socio-cultural adaptation. These findings relate closely with those produced by Matsumoto and Hwang (2013, p. 849), who take an ego-network approach. At the same time, according to Borgatti, Verett and Johnson (2013, p. 165), degree centrality does not require information from the full network, meaning that Chi and Suthers (2015, p. 109) capture only the effect of the immediate local structure and that generalisability of the empirical results is limited to a single context. In other words, the social characteristics of the network examined by Chi and Suthers (2015, p. 109) may not be common in different social situations (Kashima and Loh, 2006, p. 471).

The present researcher chose not to adopt this approach, because it advocates measuring ICC by evaluating the magnitude and quality of participants' social networks. After reading the literature for this thesis, the researcher concluded that the complex development of ICC depends on acquiring specific ICC abilities, which allow people to build large social networks in a host country. For this reason, the researcher chose to use Fantini's (2009, p. 205) Assessment of Intercultural Competence (AIC) to measure the abilities that are essential for developing ICC. This tool measures intercultural knowledge, attitudes, awareness and skills. As discussed

previously, the Process-Oriented Model identifies all of these abilities as crucial for ICC. Section 4.5.3., Survey Instruments, provides further description of the AIC, its subscales and its reliability.

## **2.3. Personality Traits**

Personality traits are relevant for this thesis not only because they describe people's characteristic patterns of thoughts and emotions but also because they shape cultural values and determine how people interact with each other (Shieh, 2014, p. 57). As previously mentioned, cultural values and the manner in which international students interact with others in international contexts are significant predictors of their ICC abilities (Baier, 2005, p. 32; Brady, Fryberg and Shoda, 2018, p. 11407), which explains why personality traits are relevant for ICC. This section discusses several theoretical models and frameworks that conceptualise personality traits and link social actors' traits with their intercultural views. These models are the Trait Activation Theory (Tett and Burnett, 2003, p. 50), the Five-Factor Model of Personality (Costa and McCrae, 1992a, p. 635) and the Multicultural Personality Model (van Oudenhoven and van der Zee, 2009, p. 291).

The present research relied only on the Five-Factor Model of Personality when assessing international students' personality traits (Section 4.2., Research Design, describes the rationale). However, when discussing personality traits, it appears relevant to outline other theoretical models to aid the reader's understanding of personality as a construct and to explain why Costa and McCrae's (1992a, p. 635) model was preferred in this research.

### **2.3.1. Trait Activation Theory**

Trait activation theory, which was developed by Tett and Burnett (2003, p. 505), can be defined as 'a theory that focuses on the person-situation interaction to explain behaviour on the basis of responses to trait-relevant cues found in situations,' (Lievens, et al., 2006, p. 248). This theory, situation trait relevance is the most pertinent for understanding which personality traits are triggered by specific situations and which traits are likely to manifest in a social actor's

behaviour (Lievens, et al., 2006, p. 248). The relevance of a situation can be assessed on the basis of its cues for the expression of trait-relevant behaviour (Tett and Guterman, 2000, p. 397). The most critical assumption of this theory is that personality traits are not stable across situations but that their expression depends exclusively on a situation in which they are invoked (Tett and Burnett, 2003, p. 509).

Situation strength plays a critical role in the trait activation process (Lievens, et al., 2006, p. 248). Strong situations are specific situations that 'limit the expression of individual personalities, rendering them practically irrelevant' (Cooper and Withey, 2009, p. 62). They involve 'behavioural demands where the results of an individual's behaviour are widely shared and fully understood' (Lievens, et al., 2006, p. 248). They include situations in which people are expected to act in predictable ways by ascribing to social norms, which diminishes the expression of their individuality. As a result, very strong situations negate most individual differences in behaviour, such as extroversion or risk-taking, regardless of any specific personality trait (Lievens, et al., 2006, p. 249). On the contrary, weak situations are associated with more ambiguous expectations, which in turn result in a greater variety of behavioural responses and which correspond to the wider spectrum of individual personalities (Lievens, et al., 2006, p. 248).

An additional interpretation of situation strength and its effect on the activation of personality was developed by Meyer, Dalal and Hermida (2010, p. 121). These researchers outline four fundamental elements of situation strength, namely clarity, consistency, constraints and consequences. They argue that people suppress their authentic personalities in situations that they feel are unclear, inconsistent or constraining due to a fear of negative consequences. Meyer, Dalal and Hermida (2010, p. 121) add that highly structured situations lack variety and unsupervised freedom to make decisions, and there are penalties associated with negative results, all of which contribute to individuals' concealment of their unique personality traits.

According to Lucas and Donnellan (2009, p. 146), two moderating situational influences affect the expression of personality traits, namely general and specific. General influences represent situation strength, and specific situational influences represent trait activation. Judge and Zapata (2014, p. 1149) offer two critical findings based on their integrative framework of personality. Their first finding shows that personality traits predict and increase a behaviour (i.e. job performance) when participants perform in weak situations (e.g. unstructured work, ability to engage in the decision-making process), thus demonstrating that the personality-behaviour link depends on the general influence of situation strength. Their second finding shows that personality also predicts behaviour in specific contexts that activate given traits (e.g. extroversion predicting job performance in social contexts), thus revealing that the personality-behaviour link also depends on the specific influence of trait activation in specific contexts. Still, Judge and Zapata (2014, p. 1149) find that trait activation is more important than situation strength for explaining how and when personality is more predictive of behaviour.

The empirical study conducted by Judge and Zapata (2014, p. 1149) is limited, as not all trait-relevant cues that can impact personality-behaviour relationships are identified. For instance, the researchers do not consider social psychological factors. These factors are ‘regarded as the most proximal determinants of individual behaviour’, such as the gap between intentions and behaviour and the effect of conscious and unconscious attitudes (Maio, et al., 2007, p. 101). Accounting for these factors could have offered more comprehensive insights into how and which situations affect not only the expression of personality traits but also the link between traits and behaviour.

Tett and Burnett’s (2003, p. 505) trait activation theory offers interesting insight into relationships between situational factors and personality traits, though it does not appear useful for guiding this thesis for at least two reasons. First, this theory was developed to be implemented in organisational settings to ensure successful person-job fit, so its application in an educational context may not be appropriate. Second, the fundamental postulate of this theory that external situations modulate



trait expression has been a focus of debate. Research shows that personality traits tend to remain stable both over time and across situations (Cobb-Clark and Schurer, 2012, p. 13), which means that the trait activation theory is incomplete.

### **2.3.2. The Big Five Personality Theory**

The Big Five Model, also known as the Five-Factor Model (FFM), was developed by McCrae and Costa (1987, p. 81). The FFM presents a hierarchical model (Burns, et al., 2017, p. 213). Its framework identifies five personality traits (neuroticism, extroversion, openness to experience, agreeableness and conscientiousness) that can be used to establish differences between individuals (John and Srivastava, 1999, p. 102). This model aids scientific understanding of personality differences between different groups of individuals and has been proven useful in studies examining people's personality in different fields and across cultures. Its main advantage lies in its robustness. It has been validated across instruments, observers and different types of studies (Cortina, et al., 1992, p. 119). This section discusses this model without connecting it to intercultural competence, which will be achieved in the following section.

The trait of neuroticism is important, because it is the leading cause of negative affectivity. Low emotional stability or high neuroticism is characterised as a tendency to feel negative emotions, including anger and depression. These emotions can arise from a negative perception of surroundings. Neurotic traits may lead individuals to interpret neutral situations as threats or to exaggerate minor frustrations. Individuals with high neuroticism scores also experience difficulties controlling their emotions (Terracciano, et al., 2008, p. 621). Individuals who score low on neuroticism tend to be emotionally stable with low anxiety. They also tend to be better problem solvers and less responsive to external stress factors (Costa and McCrae, 1992a, p. 654).

Individuals who score high on extroversion have well-developed social skills and tend to be enthusiastic, assertive and ambitious (Hogan, 2005, p. 331). They enjoy being with other people and have a great deal of energy. As a result, these individuals tend to experience positive emotions

regarding different or challenging situations, which affects their decision making (Connolly and Viswesvaran, 2000, p. 265). Individuals who score low on extroversion have low energy and tend to be quiet. They do not like drawing attention to themselves and find it challenging to integrate into new social situations. Consequentially, they prefer to be alone (Matthews and Deary, 1998, p. 4).

Individuals who are open to experience are imaginative, cultured, original, creative, intellectually curious and art- and beauty-oriented. Individuals who score low on this trait are close-minded with narrow interests, and they tend to resist change and prefer to handle complex situations in a straightforward and obvious way (Costa and McCrae, 1992a, p. 653).

The trait of agreeableness is defined in terms of likability or friendliness (Hogan, 2005, p. 333). Individuals who score high on this trait tend to be flexible, broad-minded, cooperative, sensitive and warm (Costa and McCrae, 1992a, p. 655). These individuals forgive others to maintain friendly relationships and avoid disruptions. Highly agreeable individuals concern themselves with cooperation and social integration while believing that others are trustworthy. As these individuals have positive affectivity, they can accommodate different social situations and establish rapport with others. Individuals who score low in agreeableness tend to be less concerned about others, less willing to cooperate and less interested in the concerns of their social group (Hogan, 2005, p. 333).

Finally, the trait of conscientiousness has been equated with dependability (Hogan, 2005, p. 332). This trait is associated with educational success, as individuals with this trait tend to be hard workers who are motivated to succeed. They tend to be reliable, organised and dutiful. Digman (1990, p. 417) views conscientiousness as necessary for attaining work-related and educational goals. Costa and McCrae (1992a, p. 654) note that conscientious individuals avoid causing trouble and aim for high standards of performance in a work environment. They tend to follow regulations and practise self-discipline to improve their work performance. Individuals who score low on

conscientiousness tend to worry less about their work and do not necessarily follow work-related rules and regulations.

Various authors support the claim that Big Five personality traits are universal characteristics. For instance, McCrae and Costa (1997, p. 509) argue that FFM occurs in every culture. Other studies show recurring phenomena, despite differences in language, history, religion or culture (e.g. Costa, Terracciano and McCrae, 2001, p. 22). Another shows that the expression of these traits is consistent across situations (Cobb-Clark and Schurer, 2012, p. 13), which refutes some basic postulates of trait activation theory. All these findings suggest that a basic feature of human beings is the presence of these personality traits. John and Srivastava (1999, p. 113) summarise the Big Five Trait taxonomy, presented in Table 2.1.

Table 2.1 Basic features of personality traits

Neuroticism		Extroversion		Openness		Agreeableness		Conscientiousness	
Low	High	Low	High	Low	High	Low	High	Low	High
Stable	Tense	Quiet	Talkative	Common-place	Wide interests	Fault - finding	Sympathetic	Careless	Organised
Calm	Anxious	Reserved	Assertive	Narrow interests	Imaginative	Cold	Kind	Disorderly	Thorough
Contented	Nervous	Shy	Active	Simple	Intelligent	Unfriendly	Appreciative	Frivolous	Planful
Unemotional	Moody	Silent	Energetic	Shallow	Original	Quarrelsome	Affectionate	Irresponsible	Efficient
	Worrying	Withdrawn	Outgoing	Unintelligent	Insightful	Hard hearted	Soft-hearted	Slipshod	Responsible
	Touchy	Retiring	Outspoken		Curious	Unkind	Warm	Undependable	Reliable
	Fearful		Dominant		Sophisticated	Cruel	Generous	Forgetful	Dependable
	Highly strung		Forceful		Artistic	Stern	Trusting		Conscientious
	Self-pitying		Enthusiastic		Inventive	Thankless	Helpful		Precise
	Temperamental		Show-off		Sharp witted	Stingy	Forgiving		Practical
	Unstable		Sociable		Ingenious		Pleasant		Deliberate
	Self-punishing		Spunky		Witty		Good-natured		Painstaking
	Despondent		Adventurous		Resourceful		Friendly		Cautious
	Emotional		Noisy		Wise		Cooperative		
			Bossy		Logical		Gentle		
					Civilised		Unselfish		
					Foresighted		Praising		
					Polished		Sensitive		
					Dignified				

The FFM originally was implemented in studies with undergraduate psychology students. Thus, the validity of the model depended on the assumption that the sample was representative of the wider population. In recent decades, however, it has been used extensively enough to guarantee that the model is well-suited for assessing the personality of university students, including international students (McCrae, Costa and Martin., 2005, p. 261). It is commonly argued that the Revised NEO Personality Inventory developed by Costa and McCrae (1995, p. 21) for assessing the Big Five is one of the most thoroughly validated instruments for assessing international students studying in different countries (Miller, et al., 2017, p. 335). In fact, the FFM is considered the most well-developed and well-researched model of personality (Barrick and Mount, 2012, p. 227).

The FFM does not fully cover personal qualities, such as motivation and needs (Costa and McCrae, 1992a, p. 655), so it is not suitable for measuring people's motivational tendencies. Nevertheless, its ability to capture people's personality cannot be overestimated. The FFM is useful in identifying different personality dimensions using self-ratings and peer-ratings. Hence, the model can produce a general picture of individuals by identifying their personality dimensions, thus providing a broad explanation of their personality traits. For all these reasons, including the superiority of this model over the trait activation theory (Tett and Burnett, 2003, p. 505), the present research uses the FFM to explore international students' personality traits.

### **2.3.3. Multicultural Personality Theory**

The question of how international students' personality features affect their decisions and motivations to adapt is of significant interest to scholars and researchers in the field of education (Chi and Suthers, 2015, p. 108). Successful integration in a multicultural environment plays an important role in international students' professional and personal lives (Jacob and Greggo, 2001, p. 73; Diener, Oishi and Lucas, 2003, p. 403). However, this adaptation requires more than professional and intellectual skills and competencies (Molinsky, et al., 2005, p. 380). For instance,

high-performing students may demonstrate low intercultural adaptability and orientation (Popescu and Borca, 2014, p. 148). This situation may occur when international students lack adaptive competencies (van Oudenhoven and van der Zee, 2002, p. 683). Multicultural personality is a set of behavioural dimensions commonly used to encompass aspects of a student's intercultural effectiveness and multicultural adaptability (Shupe, 2007, p. 750).

Various researchers and practitioners have investigated the Multicultural Personality Model (MPM) in the field of psychology (van Oudenhoven and van der Zee, 2009, p. 291; Anderson and Betz, 2001, p. 98; Ward, Bochner and Furnham, 2001, p. 57). The Multicultural Personality Questionnaire (MPQ) assesses personality characteristics relevant to different problems (e.g. motivational, educational, professional and occupational) that arise in a multicultural context (van Oudenhoven and van der Zee, 2002, p. 680). Based on the MPM, the MPQ describes a person's characteristics and behaviours when interacting with social actors from different cultural backgrounds (Oudenhoven and van der Zee, 2002, pp. 681-682). This instrument, together with its limitations, will be reviewed at the end of this section.

Both the MPQ and MPM are based on the idea that cultural adaptation depends on five dimensions of human personality: cultural empathy, open-mindedness, social initiative, flexibility and emotional stability (van Oudenhoven and van der Zee, 2002, p. 680). These dimensions are based on the FFM (Costa and McCrae, 1992a, p. 651) but are renamed for the purposes of developing the MPM; that is, for adapting them to the context of multicultural communication (Ponterotto, 2010, p. 56). Across the two models, cultural empathy can be linked to agreeableness, open-mindedness to openness to experience, social initiative to extroversion, emotional stability to low neuroticism and flexibility to conscientiousness (Ponterotto, 2010, p. 56). The primary benefit of the MPM, especially concerning this thesis, is its recognition of the linkage between the personality dimensions assessed by the MPQ and intercultural communication and functioning.

This section outlines such linkages as a means of justifying why certain Big Five personality traits, which are linked to specific MPQ dimensions, should be associated with ICC.

The cultural empathy dimension is the most frequently cited aspect of the MPM. It measures cultural effectiveness (van Oudenhoven and van der Zee, 2002, p. 680). Cultural empathy can be defined as a person's capacity to be interested in other individuals and obtain a reasonable and accurate sense of their thoughts (van Oudenhoven and van der Zee, 2002, p. 680). This dimension of the MPQ assesses individuals' ability to identify with the thoughts, feelings and behaviours of others from different cultural contexts (Popescu and Borca, 2014, p. 148). Persons who score high on the cultural empathy dimension can do this easily, whereas those who score low on this dimension cannot (van Oudenhoven and van der Zee, 2002, p. 684). In the present research, the author did not assess students' cultural empathy but rather their openness to experience. Also, because cultural empathy and agreeableness tend to be highly similar (Magalhaes, Costa and Costa, 2012, p. 810) and linked (Ponterotto, 2010, p. 57), it can be assumed that agreeableness fosters people's abilities to understand individuals from different cultural contexts.

The open-mindedness dimension assesses a person's ability to be non-judgmental and respectful to other individuals outside their cultural context (van Oudenhoven and van der Zee, 2002, p. 684). Haran, Ritov and Mellers (2013, p. 189) define open-minded thinking as 'the tendency to weigh new evidence against a favoured belief, to spend sufficient time on a problem before giving up and to consider the opinions of others when forming one's own'. Hence, open-mindedness can be measured by several items, including interest in other cultures and fascination with others' opinions (Kashima and Loh, 2006, p. 471). Assess open-mindedness can be achieved by asking participants to answer a set of Likert scale-based questions that incorporate these measures. However, the reliability of this dimension is questionable, as individual responses may be biased and subjective (Kashima and Loh, 2006, p. 476). Still, van der Zee and van Oudenhoven (2013, p. 928) argue that open-mindedness is vital to understanding the values and rules of other cultures.

Students who score high on this multicultural personality dimension have an unprejudiced attitude towards other cultural groups. Open-mindedness also can be linked to openness to experience (Ponterotto, 2010, p. 57). Thus, openness to experience should enhance interest in other cultures, perspectives, opinions and intercultural relationships.

The social initiative dimension denotes the tendency take initiative (Elfenbein and Ambady, 2002, p. 203). This dimension focuses on the extent to which a person facilitates relationships with individuals from other cultures (Chaney and Martin, 2007, p. 67). Those who score high on this dimension can establish social networks and become leaders in a multicultural environment (Woerkom and van de Reuver, 2009, p. 2023). They ‘take various perspectives and life experiences into account while making decisions and interacting with others’ (Pusch, 2009, p. 77). Social initiative is linked to extroversion (Ponterotto, 2010, p. 57). Thus, extroverted people should facilitate relationships with individuals from other cultures.

The emotional stability dimension measures the extent to which individuals remain calm in stressful situations (Caligiuri, 2000, p. 67). International students often face stressful situations when leaving their home country and trying to adapt to a new cultural environment. Chaney and Martin (2007, p. 81) cite capacity to cope with this stress as the key characteristic in successful international students. Individuals who score high on the emotional stability dimension are calm during stressful situations (Popescu and Borca, 2014, p. 149). They avoid interpersonal conflicts and negative emotions, and they engage in effective intercultural communication.

Finally, the flexibility dimension reflects a person’s ability to adapt to new and unknown situations, which promotes adaptation to a new cultural context (van der Zee and van Oudenhoven, 2013, p. 928). Individuals’ flexibility is measured as the degree to which they can perform tasks according to a plan (van Oudenhoven and van der Zee, 2002, p. 684). van Oudenhoven and van der Zee (2002, p. 691) reveal that students with high flexibility scores demonstrate better educational performance. Flexibility, therefore, can be linked to the Big Five’s



train of conscientiousness (Ponterotto, 2010, p. 56). Still, there is a lack of research on the link between flexibility and intercultural communication. Thus, based on the literature on the MPM so far, no assumptions can be made regarding the link between conscientiousness and intercultural communication.

The MPM and its dimensions are linked to various aspects of intercultural communication that are relevant for ICC. However, this research uses the FFM, rather than the MPM, as a framework, because of the limitations of the MPQ, which is the primary and only measure used to assess cultural empathy, open-mindedness, social initiative, flexibility and emotional stability from the perspective of the previously described model. The MPQ comprises more than 90 questions that assess five multicultural dimensions, which are rated on a five-point Likert scale ranging from 1 ('totally not applicable') to 5 ('completely applicable') (van Oudenhoven and van der Zee, 2002, p. 684). Its validity was tested by numerous researchers in the field (van der Zee and van Oudenhoven, 2004, p. 1069; Leone, et al., 2005, p. 1449; van Oudenhoven and van der Zee, 2002, p. 682), according to whom there is a strong correlation between the previously described multicultural behavioural characteristics and multicultural personality dimensions. Specifically, van Oudenhoven, Mol and van der Zee (2003, p. 159) use the associations between MPQ scores and scores on more traditional measures of life satisfaction, mental health, academic achievement, individual membership in diverse cultural groups and social interaction to highlight the validity of this measure. However, there is a lack of research on assessing the association between the scores on various MPQ dimensions and any of the Big Five personality traits, which is why it is unclear whether this measure, in itself, is an appropriate tool for measuring personality traits.

Evidence indicates that the MPQ is reliable only in certain societies. It has been used exclusively with expatriate employees, which limits its applicability in this doctoral project. Moreover, the developers of the MPQ are from the Netherlands. The social initiative dimension is applicable there, where newcomers are expected to invite locals for dinner to avoid social isolation (van

Oudenhoven and Benet-Martinez, 2015, p. 51). Other cultures may not have such customs. Thus, the MPQ appears to be a culture-specific tool, and it is unclear whether its reliability and validity would be demonstrated in other contexts, such as international students from different countries. Therefore, the present thesis relies on the FFM.

## **2.4. The Relevance of Personality in Education**

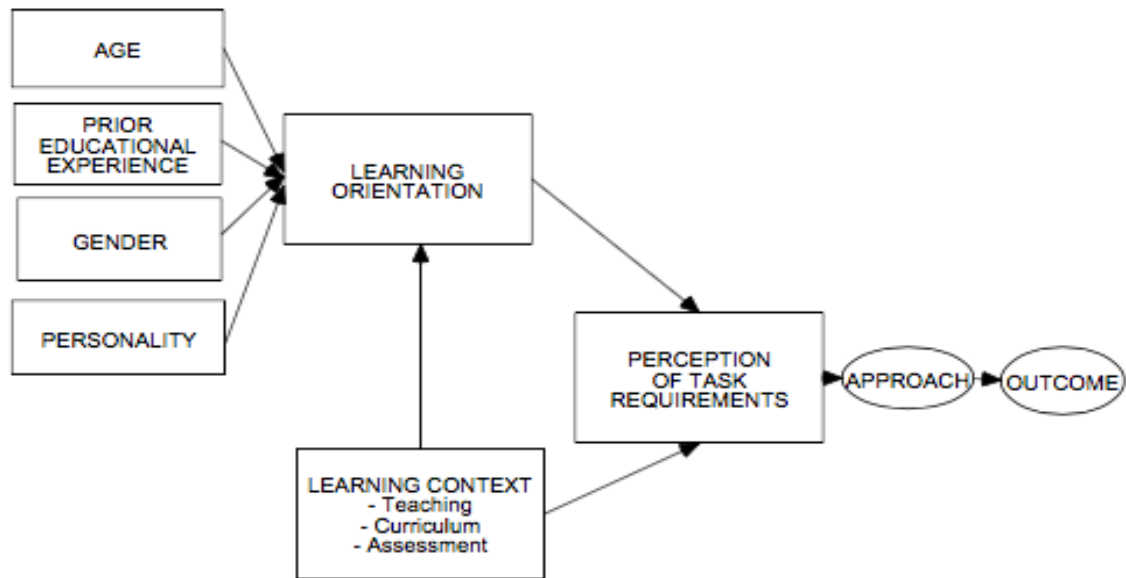
Although the present thesis focuses on the association between personality and ICC among international students, it is essential to review other potential effects of personality in educational settings, such as those concerning academic success. Such a review contextualises this research by identifying known effects of personality traits in education. Early research points out the relevance of personality in enhancing work performance, which has stimulated research interest in the effects of personality on academic performance.

There is another reason why personality should impact students academically. According to Traag, et al. (2005, p. 453), work and academic performance depend on capacity, opportunity and willingness to perform. In particular, a study by Strenze (2007, p. 401) shows that capacity and opportunity are positively correlated with academic success. Pollack and Lewis (2002, p. 1) reveal that willingness to perform also acts as a critical factor in academic success. These authors define capacity in terms of knowledge, skills and intelligence and opportunity in terms of the opportunity that arises from supportive environmental factors (e.g. high socio-economic status). None of these factors is related to personality per se. Willingness to perform, however, is linked to personality. The link between willingness to succeed and academic performance suggests that certain personality traits help improve students' performance.

Duff, et al. (2004, p. 1910) propose that personality has great impact on learning. They show that it is not personality in general, but specific traits, that may prove beneficial for learning. They also

consider a variety of other factors, such as age, prior educational experience and gender, as shown in Figure 2.1.

Figure 2.1. Proposed model of student learning (source: Ramsden, 1992, p. 83).



Poropat (2009, p. 327) argues that both intelligence and wealth affect academic performance and make the task of linking personality traits to academic performance challenging. Still, Furnham, Monsen and Ahmetohlu (2009, p. 771) state that personality traits have a stronger influence over these additional factors once students reach higher levels of formal education (i.e. undergraduate studies and onwards). This finding is especially relevant for the present research, because it shows that the international students in this study, who have already reached a high level of education, may reveal a more direct link between specific personality traits and ICC. Further, this effect may not be confounded by their age, gender, past experiences and other factors.

Many studies have analysed the relationship between personality and academic performance using the Big Five Model. Here, the evidence on the link between specific personality traits and academic success is discussed separately. First, the literature has established a link between conscientiousness and educational success. Geisler-Brenstein, Schmeck and Hetherington (1996, p. 73), for example, find a positive correlation between conscientiousness and methodical and

analytic learning. Similarly, Chamorro-Premuzic and Furnham (2003, p. 319) link conscientiousness to motivational learning and in particular with effort expenditure and persistence. Steel (2007, p. 96) further finds that high conscientiousness often translates to students' ability to sustain effort and set long-term goals. Similarly, Trautwein, et al. (2006, p. 438) reveal that high levels of conscientiousness enable students to concentrate on homework. Bidjerano and Dai (2007, p. 69) also establish a link between conscientiousness and students' ability to manage their time and effort. Heaven, Ciarrochi and Vialle (2007, p. 535) and O'Connor and Paunonen (2007, p. 971) claim that highly conscientious individuals achieve better outcomes in exams, essays, continuous assessments and supervised dissertations. These authors attribute this extraordinary performance to the fact that conscientious individuals tend to be motivated, hard-working, responsible and achievement oriented. Similarly, Poropat (2009, p. 362) finds that conscientiousness has the most impact on academic performance.

Vermetten, Lodewijks and Vermunt (2001, p. 149) look into the link between agreeableness and academic success. These authors argue that agreeableness makes students likely to comply with teacher instructions, willing to put effort into tasks and capable of maintaining focus. Agreeableness also contributes to success in self-regulated learning strategies, according to Bidjerano and Day (2007, p. 69). Vermetten, Lodewijks and Vermunt (2001, p. 157) reveal that agreeableness is positively associated with effort and surface learning: agreeable individuals tend to be compliant and cooperative and thus likely to consolidate learning and to regulate their study habits.

Neuroticism is negatively linked to academic success in various studies. For instance, De Raad and Schouwenburg (1996, p. 303) find that neurotic individuals are anxious and focused on their emotional states, which interferes with their attention to academic tasks, resulting in reduced performance. Landra, Pullmann and Allick (2007, p. 441) highlight neuroticism as a negative predictor of academic success in most settings, particularly during final examinations, which

induce high stress. Individuals with low neuroticism scores tend to be emotionally stable, which increases their efficiency and academic performance (Judge and Bono, 2002, p. 93). Finally, Norem and Cantor (1986, p. 1208) make a counterargument that neuroticism facilitates motivation and effort expenditure when individuals anticipate failure and then put in effort to avoid that failure.

De Raad and Schouwenburg (1996, p. 304) link extroversion to academic success, as extroverted individuals tend to have high energy and positive attitudes towards learning. On the contrary, Eysenck (1992, p. 133) notes that extroversion could lead individuals to pursue their social life more than studying, which negatively affects performance. In fact, the extroversion factor has generated ambiguous results in various studies. For instance, Wolf and Ackerman (2005, p. 531) find that extroversion is beneficial for academic performance in primary school and the beginning of secondary school; however, it has a negative effect on students' performance thereafter. Other studies, such as the one by Matthews and Zeidner (2004, p. 143), find that extroverted individuals perform worse in problem-solving activities, as they give up on problems prematurely. De Raad and Schouwenburg (1996, p. 327) state that openness to experience can benefit learning, because people with this trait tend to be prepared, intelligent and resourceful. Openness also is linked to willingness to learn (Vermetten, Lodewijks and Vermunt, 2001, p. 150), critical thinking (Bidjerano and Dai, 2007, p. 70) and learning motivation (Tempelaar, et al., 2007, p. 105), as well as absenteeism (Lounsbury, et al., 2004, p. 457).

To sum up, the literature on the Big Five Model confirms the idea that the Big Five personality traits can enhance students' academic success. Research to date indicates that conscientiousness is the factor that most affects academic performance, although other personality traits have influence, as do other factors such as age, wealth and circumstances. Based on these results, this research assesses the association between the Big Five personality traits and ICC in a mixed-methods study by considering participants' demographic characteristics and contextual factors.

## **2.5. Linking Personality Traits and Cultural Adaptation**

Although there is a lack of existing research on the link between personality traits to ICC, some studies have investigated the association between personality traits and intercultural adaptation. Intercultural adaptation is linked to ICC, meaning that individuals with high ICC are likely to adapt well in an intercultural context. Thus, it appears useful to review studies on personality traits and adaptation to provide a background to this study, thereby establishing the importance of personality traits in intercultural settings and thus potentially for ICC as well.

Baier (2005, p. 1) examines the extent to which personality-related variables influence how international students adjust to a new culture. The researcher uses a mixed-method approach (using both open-ended interviews and self-administered questionnaires) to gather primary data from 45 international students attending a Michigan community college. Baier (2005, p. 49) identifies that international students with high self-confidence and self-efficacy are more likely to leave their home countries and adapt to a new context in the United States. Nevertheless, the researcher fails to identify any significant difference in the statistical analysis results on levels of personality variables, such as self-efficacy and self-confidence, or in cultural adjustment between international students from Western and non-Western backgrounds. Cultural heritage, including those from Asia, must be acknowledged when analysing the adaptation process of international students. Building on this notion, the present research considers cultural heritage when investigating associations between personality traits and ICC. However, categorising international students from Asian countries by Western and non-Western backgrounds is not appropriate in the context of the Middle East, primarily because Asian students do not have a Western background. For this reason, the present study instead categorises individuals according to their countries of origin.

Baier (2005) investigates the link between adaptation and self-efficacy and self-confidence, which act as personality-related variables but do not represent personality traits. Other studies focus on

personality traits. Poyrazli, et al. (2002, p. 635) assesses primary data from 122 international students to identify personality traits and their effects on cultural adjustment. They conclude that extroversion and neuroticism are among the most influential variables. More precisely, most of those surveyed recognised neuroticism as a problem (Poyrazli, et al., 2002, p. 623). Neuroticism interferes with adaptiveness, because it leads to negative emotions and limits social interaction. In contrast, extroverted students are most likely to adapt, because they explicitly seek communication with host country nationals.

As discussed previously, international students are most likely to adapt to a new culture if they score high on extroversion (i.e. they are outgoing and sociable) and low on neuroticism (i.e. they do not experience negative emotions). Additional studies also reveal that cultural adaptation is high among international students who score high on agreeableness (i.e. friendly and compassionate), conscientiousness (i.e. organised and dutiful) and openness to experience (i.e. appreciate novelty and adventure) (Lee and Ciftci, 2014, p. 104; Poyrazli, Thukral and Duru, 2010, p. 32; Ramirez, 2016, p. 90; Swangler and Jome, 2015, p. 534). The association between personality traits and ICC is under-researched.

These findings complement the empirical outcomes achieved by Blume, et al. (2010, p. 1065) and Kappe and van der Flier (2010, p. 142), according to whom these aspects of personality relate to culturally relevant results, including cultural awareness and successful relationships with individuals from different cultures. Wilson, Ward and Fischer (2013, p. 900) also find that situational factors mediate the relationship between social actors' personality traits and their ability to adapt to new cultural contexts. They examine the relationship between personality traits and cultural competence by using the FFM to measure personality. Importantly, they consider contextual factors, such as length of residence abroad, previous cross-cultural experience, perceived discrimination and cultural knowledge, and refer to these as situational factors to contrast them with personality factors. Wilson, Ward, and Fischer (2013, p. 913) further conduct

a meta-analysis of secondary data sources and, after controlling for contextual variables, conclude that three out of five dimensions of personality, namely extroversion, agreeableness and conscientiousness, are positively related to individuals' ability to adapt to a new cultural environment. The present research, in its exploration of the link between personality traits and ICC, also controls for various contextual variables.

## **2.6. Summary**

This chapter reviews the literature that serves as a background for this research. It identifies a significant lack of academic agreement on how ICC should be conceptualised (e.g. cross-cultural adaptation, intercultural sensitivity, intercultural literacy and transcultural communication). This study uses the definition provided by Wiseman (2002, p. 209), who defines ICC as the acceptance of similarities and differences between different cultures and appropriate communication in intercultural settings. The thesis also refers to ideas by Stier (2006, p. 6) to discuss the importance of processual ICC competencies, recognising that ICC involves cognitive, emotional and interpersonal skills. The present thesis builds on Lustig and Koester (2010, p. 67) and Deardorff (2009, p. 266) to define how ICC depends on a variety of factors (i.e. culturally appropriate behaviours, acceptance and openness to similarity) and seeks to expand these ideas by investigating the link between ICC and another relevant factor, personality traits.

The chapter reviews two ICC models: the Process-Oriented Model (Deardorff, 2006, p. 241), which identifies four dimensions of ICC development (i.e. knowledge, attitudes, awareness and skills) and the Integrated Model of Intercultural Communication Competence (Arasaratnam, Banerjee and Dembek, 2008, p. 103), which specifies that ICC depends on five interrelated aspects (i.e. empathy, experience, intercultural motivation, attitudes and a desire to listen). After reviewing the limitations of these models, the Process-Oriented Model was selected for use in this paper.



This chapter also discussed the relation of ICC to cosmopolitanism, defined as an overall mutual respect among members of different cultures and interculturality, which is the set of multi-faceted interactions through which relations between different cultures are construed. Specifically, it was argued that ICC aids development of both interculturality and cosmopolitan citizenship. Factors that affect ICC (i.e. cultural values and culture shock) also are reviewed, emphasising that there is a paucity of research that assessed whether personality traits affect ICC. Four prominent ICC assessment tools (i.e. IDI, CCAI, SNA and AIC) are reviewed. The researcher uses the AIC in this study, because this tool directly assesses the abilities of ICC as identified by the Process-Oriented Model (i.e. knowledge, attitudes, awareness and skills).

The chapter then focuses on personality traits. Initially, the goal was to outline two prominent theories of personality: Trait Activation Theory (Lievens, et al., 2006, p. 248), which explains how specific situations trigger personality traits, and Multicultural Personality Theory (van Oudenhoven and van der Zee, 2002, p. 680), which links cultural adaptation to five personality dimensions (i.e. cultural empathy, open-mindedness, social initiative, flexibility and emotional stability). The Big Five Personality Theory (Costa and McCrae, 2009, p. 307) guides this research, because it is the most well-researched and has yielded the most valid and reliable tools for assessing international students' personality.

To argue for a potential link between personality traits and ICC, the chapter reviews the literature on personality traits and cultural adaptation, the latter of which depends on well-developed ICC skills. The review shows that cultural adaptation is highest among students who score high on extroversion, conscientiousness, emotional stability and openness to experience. The literature review concludes that the literature on the relationship between ICC and the Big Five personality traits is scant, therefore justifying the relevance of the present research.

### **3. Personality Traits and Intercultural Communication Competence in the Saudi Context**

In the highly globalised and technological world, intercultural communication is an integral part of people's everyday life (Raddawi, 2014, p. 1). Hence, ICC is a prerequisite for studying abroad and working in various socio-economic spheres. This literature review highlights the discussion and criticism of ICC in Saudi Arabia. The discussion is timely, because ICC only recently has attracted the attention of Saudi policymakers and educators (Raddawi, 2014, p. 2). Although much literature is devoted to the benefits of ICC and how to develop this competence in students and educators, little research has assessed ICC within the Saudi context (Shaw, 2009, p. 4; Alalwi, 2016, p. 13). In the last decade, researchers have initiated studies on ICC among Saudi students at international universities (Razek and Coyner, 2013, p. 103), yet international students studying in Saudi universities are underrepresented in the literature on ICC. This literature review also discusses and identifies the gap in the research on personality traits of international students in Saudi Arabia.

#### **3.1. The Culture of Saudi Arabia**

Culture in Saudi Arabia is characterised by the prevalence of patriarchal norms (Alhazmi and Nyland, 2013, p. 352; Karolak and Guta, 2014, p. 41). Under the impact of Islam and significant conservatism, genders within Saudi society are segregated (Alhazmi and Nyland, 2013, p. 347; Karolak and Guta, 2014, p. 42; Davis, 2014, p. 2; Havril, 2015, p. 562). In most cases, women are excluded from the public domain, fulfil roles in a private domain and face a wide range of restrictions (Alhazmi and Nyland, 2013, p. 348). According to Hofstede's (2011, p. 11) cultural framework, Saudi Arabia has a collectivist culture with extremely strong social ties where people support their own families and other members of society and where family values are imposed on children from early childhood. Khan, et al. (2016, p. 51) notes that Saudi Arabia scores very high

(95%) on the dimension of 'power distance'. Alsubaie, Valenzuela and Adapa (2015, p. 24) argues that this score, along with its high 'uncertainty avoidance' score, highlight a hierarchal structure that promotes social and gender inequality and minimises individualism; these strict rules and resistance to innovations also may ensure survival of its culture.

Yet, as the Demographic Survey 2016 reveals, Saudi society is multicultural, with 20,064,970 (63.2%) Saudi nationals and 11,677,338 (36.8%) non-Saudis (General Authority for Statistics, 2016, p. 49). The survey also shows that the number of non-Saudis between 15-64 years old has increased to 83.2%, reflecting how many foreigners come to Saudi Arabia for work without their children or older family members (General Authority for Statistics, 2016, p. 21). It is thus crucial that Saudis and non-Saudis acquire ICC. Yet, the impact of globalisation on Saudi culture is often ignored by researchers (Alsubaie, Valenzuela and Adapa, 2015, p. 24).

Researchers tend to distinguish collectivist Asian cultures from individualistic Western cultures (Kabasakal and Bodur, 2002, p. 40), while neglecting their unique multicultural aspects (Alsubaie, Valenzuela and Adapa, 2015, p. 24). However, according to Zaharna (2009, p. 179), 'a new generation of scholars is arguing that the Arab culture should no longer be seen as singular but rather as a group of diverse social customs representing a tapestry of cultures within the Arab world'. Hofstede's (2011, p. 11) cultural framework is crucial for identifying major characteristics of a culture and cultural differences, but this framework is based on generalisations and does not represent the dynamism of culture.

### **3.2. Moving towards a Knowledge-Based Economy**

The 1973 oil crisis in the Kingdom of Saudi Arabia and the subsequent increase in unemployment rates forced the government towards a knowledge-based economy (Karolak and Guta, 2014, p. 41; Debnath, 2015, p. 249). As a result, steps have been taken to reinforce the implementation of technologies and to increase knowledge of workers. In particular, significant investments have

been made in the field of petroleum research, including the opening of King Abdullah University of Science and Technology and about 100 other universities and colleges (Karolak and Guta, 2014, p. 41). Yet, according to Debnath (2015, p. 249), these steps are insufficient, because many companies in Saudi Arabia employ foreign workers for low-skilled workers and are not interested in their workers' acquisition of knowledge. Moreover, Saudi citizens who are unemployed tend to be unmotivated to acquire ICC (Debnath, 2015, p. 249).

In 2016, a national reform plan called *Vision 2030* was approved by the government to decrease the kingdom's dependence on oil and create a thriving economy, an ambitious nation and a vibrant society (Kingdom of Saudi Arabia, 2016; Josh, 2016, p. 35; Dirani, Hamie and Tlaiss, 2017, p. 250). According to this plan, a public investment fund will be built to attract local and foreign investors and support areas (e.g. education) that are crucial for transforming the kingdom into 'a global hub connecting three continents: Asia, Europe and Africa' (Josh, 2016, p. 35).

Although *Vision 2030* does not explicitly address issues relating to ICC, it nevertheless specifies measures to make education multi-faceted, adapt the education system to the global economy, encourage teachers to obtain further and lifelong training, provide students with international scholarships and different job opportunities, introduce changes in the national curriculum, implement technological innovations, invite international students with skills and qualifications and encourage them to stay in Saudi Arabia by creating good conditions for them (Kingdom of Saudi Arabia, 2016). The latter aspect is especially important in shaping ICC among students and teachers. The presence of international students in Saudi Arabia signifies the increase in foreign investments (Kingdom of Saudi Arabia, 2016).

*Vision 2030* envisages creating sector councils to determine the knowledge and skills necessary for every Saudi socio-economic sector (Kingdom of Saudi Arabia, 2016). However, analysts interviewed by Torchia, Aswad and Strohecker (2016, n.p) express doubts about the successful implementation of this plan. In their opinion, similar ambitious goals have been brought forward

in Saudi Arabia for several decades without realisation. According to the analysts, ‘you need to see action in a country like that rather than yet another medium-term national transformation paper’ (Torchia, Aswad and Strohecker, 2016, n.p.). The analysts argue that *Vision 2030* does not accentuate the need for an educational reform, without which its objectives cannot be achieved. However, the Saudi Ministry of Higher Education recently developed the King Abdullah Scholarship Program to provide Saudi students with international scholarships (Alhazmi and Nyland, 2013, p. 351; Razek and Coyner, 2013, p. 103; Davis, 2014, p. 4; Alalwi, 2016, p. 15). This programme facilitates the participation of Saudi youth and females and emphasises ICC (Alalwi, 2016, p. 15).

### **3.3. Arabic Language Peculiarities**

The Arabic language has peculiarities that can pose difficulties for international students (Gutierrez, et al., 2009, p. 20). Specifically, its characteristic feature is diglossia, or the simultaneous use of two language varieties (higher and lower) in one speech community (Palmer, 2013, p. 59; Suchan, 2014, p. 3). The more common Modern Standard Arabic is widely employed in writing and communication in academic circles. Arab children learn Modern Standard Arabic at school, and international students learning the Arabic language outside of the Arab world are also taught Modern Standard Arabic (Ryding, 1995, p. 226; Gutierrez, et al., 2009, p. 20). Spoken Colloquial Arabic is used for everyday communication and viewed as ungrammatical.

Many international students who learn the Arabic language outside the Arab world fail to culturally integrate with Arab nationals when they come to an Arab country (Gutierrez, et al., 2009, p. 20). Part of this failure may be due to the emphasis on Modern Standard Arabic (Palmer, 2013, p. 59). Many international students instead prefer programmes that teach both varieties, so that they can engage in informal communication and immerse themselves in the culture. However, ‘students who wish to learn spoken varieties of Arabic are often left to their own devices’ (Palmer, 2013, p. 64). The integration of many colonial and Western words and phrases into spoken

varieties also underscores the reluctance among Saudi academics to view both varieties as equal. According to academics, such integration signifies the emergence of ‘a destructive kind of secular modernism’ (Suchan, 2014, p. 3). Moreover, the spoken variety often differs in each Arab country, so international students must learn the particular variety of that region. Thus, the interview phase of the present research explored how knowledge of Modern Standard Arabic and Standard Colloquial Arabic affected students’ ICC.

Gutierrez, et al. (2009, p. 7) assert that despite the increasing interest of American students in the Arabic language, only 1% of these students come to the Arab world to learn this language. They also note that in 2007-2008, 22,549 Arab students studied in the United States, whereas only 2,200 American students studied in the Arab world. Additionally, the Arab students spent significantly more time in the United States than the one month or one semester that American students spent in Arab countries. In view of this imbalance, additional measures should be implemented to attract international students to study in the Arab world. Arab educators support this goal and are ready to engage with American universities (Gutierrez, et al., 2009, p. 8).

Research by Shiri (2015, p. 541) does not examine Saudi Arabia specifically, but it demonstrates that specific intensive language programmes developed in Arab countries can increase the number of international students (especially American students) and shape their ICC. This evidence provides valuable insight into ways to reinforce intercultural communication among students studying in Arab countries. Shiri (2015, p. 541) also finds two major factors that can increase effectiveness of these programmes. First, they should juxtapose unstructured and structured activities to facilitate students’ acquisition of Modern Standard Arabic. Second, they should encourage international students to participate in certain social and cultural events to learn varieties of the Arabic language. Learning language varieties increases the students’ ICC at both intermediate and high levels.

Palmer (2013, p. 59) surveyed 94 international students on their experiences and their acquisition of Modern Standard Arabic and Standard Colloquial Arabic (1-24 month programmes) and finds similar evidence on the relationship between learning Arabic in Syria, Morocco, Egypt and Jordan and the ICC of international students. Palmer's (2013, p. 68) results reveal that most international students spend insufficient time practising the language varieties: they used Modern Standard Arabic mainly for homework, and 45.7% practiced Standard Colloquial Arabic for only 0-3 hours a week. The author concludes that it is necessary to provide international students with some basic knowledge of Standard Colloquial Arabic before learning a language in an Arabic country, so that they can engage immediately in intercultural communication with Arab citizens. In the present research, it will be intriguing to see whether participants' relative use of the two varieties of Arabic affects their ICC.

### **3.4. Intercultural Communication Competence among Expatriates in Saudi Arabia**

The importance of ICC for those who study and work in Saudi Arabia is difficult to overstate. Research by Karolak and Guta (2014, p. 45) notes that faculty at one of the largest private universities, Prince Mohammad Bin Fahd University, consists of people from 27 countries. Because it is difficult to hire enough skilled professionals in Saudi Arabia, the university hires educators and professors from Britain, the United States, Canada, Pakistan and other countries. In view of existing multi-ethnicity, educators and students need ICC to understand each other. Karolak and Guta (2014, p. 42) conducted interviews with female Saudi students, who noted that they found it much easier to engage in interactions with Saudi professors than with foreign professors, at least partially because they were afraid they lacked ICC skills. Participants mentioned that they were unable to understand the foreign professors' cultural background and could not communicate with these professors due to cultural and language differences.

The findings of Karolak and Guta (2014, p. 46) demonstrate that female Saudi students' ICC is not sufficiently developed, thus creating barriers to their successful communication with professors and, subsequently, to their studies. Regarding the latter aspect, poor ICC deprives students of the opportunity to ask questions and clarify the material. These findings are consistent with those from Havril (2015, p. 555), who highlights how lack of ICC in female students prevents them from developing successful learning strategies, increasing their self-esteem and engaging in competition. When studying and working in a significantly multicultural environment, students and staff of Jazan University cannot successfully communicate with each other and experience a range of intercultural difficulties because the university does not reinforce their acquisition of ICC. Havril's (2015, p. 564) research shows that not all teachers in Saudi universities possess well-developed ICC skills. Moreover, instead of focusing on ICC, teachers are forced to fulfil many administrative tasks.

Both Karolak and Guta (2014, p. 53) and Havril (2015, p. 555) assert that Saudi students and foreign professors should receive training in ICC, especially intercultural training courses that foster understanding of different cultures and help individuals to communicate with and understand those from different cultures. Such training would provide foreign professors with an opportunity to successfully interact with all culturally diverse students. As for Saudi students, training would help them prepare 'for the globalised job market's challenges' (Karolak and Guta, 2014, p. 54). Ahmad and Ahmad (2015, p. 54) assert that a recent tendency among many Saudi companies is to hire employees with knowledge of Arabic and good ICC. However, a study by Dean and Popp (1990, p. 405) demonstrated that Arabic proficiency among American managers who work in Saudi Arabia was not a key factor in developing ICC. Intercultural adjustment instead depended on their flexibility and personality traits. Moreover, Dean and Popp's (1990, p. 405) research was conducted several decades ago. Hence, their findings should be re-tested within the contemporary globalised Saudi context.



An ethnographic study by Luring (2011, p. 231) shows that the lack of ICC among Danish expatriates and Saudi employees hindering their intercultural communications. As this was a Saudi subsidiary of a Danish corporation, Saudi employees were exposed to exclusion. The results also reveal specific barriers to developing ICC in this context, such as prejudices among Danish and Saudi employees. In this regard, it is crucial to mention results from Saidoun's (2016, p. 218) study, which focuses on Algeria and Morocco and highlighted a positive impact of ICC in project management organisations. Using examples from everyday intercultural communication, Saidoun (2016, p. 218) acknowledges that ICC heavily relies project managers' ability to penetrate deep into the Algerian and Moroccan contexts. The results provide valuable insight into the ways to improve ICC of employees as countries in North Africa (which are similar to Saudi Arabia) strive towards globalisation. It is extremely important to further the research on the impact of ICC on business because, in the viewpoint of Suchan (2014, p. 2), those who want to interact with the Arab world do not possess reliable evidence on how to successfully engage in intercultural communication with Arab people. Such an investigation, however, is beyond the scope of the present research.

Alshammari (2013, pp. 112, 169) assesses the views of foreign expatriates from 16 nations working in two Saudi Arabian universities, Ha'il and Al Jouf. Most respondents came from Arab countries, such as Algeria, Egypt, Jordan, Libya, Palestine, Sudan, Syria, Tunisia and Yemen. Others were from Canada, England, India, North Ireland, Pakistan, South Africa and the United States. In this study, the foreign expatriates acknowledge that they easily engage in interactions with their colleagues and students, because many of them belong to similar cultures, share similar religious beliefs and understand the cultural and socio-religious nuances of Saudi Arabia. The findings suggest that it is more efficient to invite educators and professors who understand Arab culture and Arab people. Foreign expatriates also mention that there is no correlation between their previous experience and the ability to adjust to a Saudi setting, indicating that experience is less significant in a Saudi setting than specific knowledge and communicative skills; moreover,

in the viewpoint of foreign expatriates, language proficiency is a prerequisite to developing ICC (Alshammari, 2013, p. 170). The researcher concludes that it is essential for Saudi university managers to help foreign expatriates adjust to the social-cultural realm of Saudi Arabia by increasing their ICC. For instance, a counselling or guidance department for foreign expatriates can help reinforce adjustment strategies and engage them in intercultural activities with other educators (Alshammari, 2013, p. 184). Without such efforts, teachers may become dissatisfied with their work and fail to engage in intercultural communication with students and Saudi nationals.

Quite different results are obtained by Jackson (2012, p. 1), who invited Western expatriates working in Saudi Arabia to express their views on cultural adjustment and intercultural communication. The expatriates in Jackson's (2012, p. 1) study and Alshammari's (2013, p. 184) study belong to culturally diverse societies, so their experiences are heterogeneous. In particular, Western expatriates specified that they still experienced serious problems with cultural adjustment and intercultural communication. Two major obstacles to the development of ICC were poor knowledge of the Arabic language and reluctance of Saudi universities to organise intercultural activities for educators and students (Jackson, 2012, p. 1). Although Western expatriates spent some time working in Saudi Arabia, they failed to learn Arabic. The results from these two studies are somewhat contradictory, however, because the researchers engaged different numbers of participants with different levels of language proficiency and different cultural and educational backgrounds. Nevertheless, these analyses show that teachers' views on ICC largely depend on the universities in which they work, their language proficiency and their awareness of Arabic cultural values and traditions.

### **3.5. Intercultural Communication Competence in Saudi Tertiary Education**

According to Ahmad and Ahmad (2015, p. 53), English is an important language in Saudi Arabia for business communication, educational purposes and interactions with expatriates. Due to this

high status of English in the kingdom, many comparatively new universities (e.g. Jazan University, which opened in 2006) tend to invite English as a foreign language (EFL) teachers to teach their students, though there is a significant discrepancy between the English language used by foreign teachers and the English language spoken by Saudi students and administrative staff (Havril, 2015, p. 555). These discrepancies complicate communication between foreigners and Saudi nationals, 'thus leaving less time to focus on professional issues' (Havril, 2015, p. 555).

Another aspect that may affect communication between culturally diverse students is differences in language norms. For instance, Binasfour (2014, n.p.) compares apology speech-act phrases by Saudi L2 students and American students and reveals that American students use more extensive language than Saudi students. Even though the apology strategies of both groups were similar, the American students' apologies were considered more honest than the Saudi students' due to their better command of the English language. This finding demonstrates that language difficulties, whether they occur among Saudi students studying abroad or among international students studying in Saudi Arabia, could affect how others perceive their intercultural communication. This finding also justifies the current study's exploration of international students' oral language proficiency to determine whether it affects their ICC.

In their research of Saudi and American managers, Adelman and Lustig (1981, p. 352) identify the wide use of 'prolonged greeting rituals' by Saudi managers. Suchan (2014, p. 1) uncovers many differences between Arabic and American persuasion strategies. Although focused on a Jordanian context, his results can be applied to a Saudi context. Using a case study approach, Suchan (2014, p. 1) reveals that Arab people employ more repetitions and metaphors and express more powerful emotions than Americans in the process of persuasion. He explains that the interaction between Islam and the Arabic language and the prevalence of hierarchies in the Arab world likely contribute to this difference. These unique linguistic and cultural aspects should be

addressed when developing students' ICC to endow students with successful communication strategies and reduce communication problems (Al-Attibi, 1986, p. 1).

The Saudi higher education sector lacks courses in intercultural communication. The exception is King Saud University, which has recently launched a teaching course in ICC (Raddawi, 2014, p. 3). This shortage of courses is explained by the lack of specific literature for educators in Saudi Arabia who want to develop ICC in their students (Raddawi, 2014, p. 3). Books written by Western authors and intended for Western students are inefficient, because the information does not account for Saudi cultural peculiarities and instead promotes a Western perspective on intercultural communication (Havril, 2015, p. 555). As Raddawi (2014, p. 3) acknowledges, it is especially important that books for Saudi students are written by authors who understand the 'the richness of the Arab culture and the diversity of the people in Arab society'. Moreover, many universities rely on an American educational model when responding to the requirements of employers (Karolak and Guta, 2014, p. 41). This notion is also true of Umm Al Qura University, where the present research took place.

The recent increase in the number of foreign teachers and professors who come to work in Saudi Arabia signifies the emergence of new opportunities for intercultural communication (Karolak and Guta, 2014, p. 41). For example, workshops that unite American and Saudi educators help reinforce the discussion on how to overcome obstacles to the development of courses in intercultural communication (Gutierrez, et al., 2009, p. 11). Obstacles to this development include the lack of resources, high cost of courses in the Arab world and inappropriate spread of information regarding study in Arab universities (Gutierrez, et al., 2009, p. 11). All these obstacles occur at Umm Al Qura University as well, which may hinder both educators' and students' ICC.

There is a shortage of studies that investigate the views of Saudi EFL teachers with regard to ICC. Osman (2015, p. ii) attempted to fill this gap by conducting mixed-method research to assess how English teachers from King Saudi University perceive ICC. The significance of this research is

that the researcher juxtaposes quantitative and qualitative methods of data gathering, thus reinforcing the reliability of the findings. During the first phase, a survey administered to teachers assessed their views and attitudes toward ICC. Class observations and focus group discussions were conducted to generate qualitative data. Osman (2015, p. iii) revealed that English teachers understood the significance of ICC but were unable to integrate it into their practice because ICC objectives were not specified in the curriculum. Osman (2015, p. iii) identified two important steps in the reinforcement of ICC in Saudi Arabia. The first step would be to provide teachers with an opportunity to acquire knowledge of English variations during teacher training. The second step involves encouraging teachers to share this knowledge with their students. These efforts would help students to engage in communication with people who speak different versions of the English language.

Al Hasnan (2015, p. iv) conducted another small-scale study to analyse how Saudi EFL teachers view ICC within the Saudi context. The study included only six teachers working at the American university, so it is impossible to make generalisations based on the results. Nevertheless, Al Hasnan's (2015, p. iv) results highlight some important issues. Although Saudi TEFL policy prioritises' students' ICC, teachers are not provided with appropriate materials and classroom instructions to teach it. Teachers also noted the reluctance of Saudi Arabs to learn about EFL target culture, likely due to stereotypes about the negative impact of foreign culture on cultural identities and religious beliefs of Saudi Arabs (Al Hasnan, 2015, p. v). The study demonstrates severe socio-cultural and religious constraints on the development of ICC in Saudi Arabia. These same issues could occur at Umm Al Qura University if professionals at this university ascribe to such stereotypical beliefs.

The findings of Ahmad and Ahmad (2015, p. 55) reveal that EFL teachers working in Saudi Arabia regard ICC as a competence to be developed in both students and teachers. The data for this study were gathered through interviews with 12 EFL teachers who were invited to teach

English in the English Language Centre of Jazan University. Participants acknowledged that ICC helped them cope with complex situations in culturally diverse classrooms and helped them to adjust teaching strategies to a heterogeneous educational environment. In line with Osman (2015, p. iii), this study also emphasises the need to shape students' knowledge in different varieties of English to prepare them for communication with people who do not use standard English. Although their data are limited, Ahmad and Ahmad (2015, p. 56) also note that Arab students should learn different varieties of English and develop ICC, because high unemployment in Saudi Arabia and lack of opportunities to work abroad are significant obstacles to students' learning. However, the researchers do not assess teachers' views on how to integrate ICC into the curriculum or how to engage teachers and students in ICC courses. The present study explores this notion but from the perspective of international students. Specifically, it investigates whether orientation programmes at Umm Al Qura University, according to students' perspectives, aid their ICC development.

### **3.6. Views on Intercultural Communication Competence among Saudi Students Studying Abroad**

In addition to gathering the views of teachers on ICC, it is of great significance to obtain the views of students, particularly the obstacles they encounter in a culturally diverse country. Previous studies have aimed at gathering the views of Saudi Arabs studying in the United Kingdom, the United States or Australia. One such study by Obaid (2015, p. 695) developed an intervention workshop for 10 Saudi students in the United Kingdom and then conducted semi-structured interviews and questionnaires to determine whether the students regarded ICC as necessary for their studies. Respondents' concerns included the inability to engage in communication with English-speaking people, the inability to adjust to English culture and doubts about their ability to ensure high academic success (Obaid, 2015, p. 697). Half of the respondents acknowledged that they had limited knowledge of British culture, and 73% mentioned that they had no English

lessons in Saudi Arabia. Also, Saudi students who knew English spoke different versions of the English language. These results demonstrate the importance of endowing students with culturally specific knowledge before sending them to a culturally diverse country. ICC thus is crucial for students to reach their full potential and increase their academic achievements.

Alqahtani (2015, p. i) also used semi-structured interviews to gather data from students in the United Kingdom. The results revealed various experiences and views on the acquisition of ICC, demonstrating that it is wrong to regard Saudi students as a homogeneous group. The findings appear to be in sharp contrast to the assertion of Alsubaie, Valenzuela and Adapa (2015, p. 24), who noted that individualism is practically absent from collectivist societies. In Alqahtani's (2015, p. ii) research, individualism is evident in the diverse impact of English culture and ICC on Saudi students. For example, some students acknowledged that their views significantly changed during their intercultural experience: some rejected English culture, and others reconciled English cultural values with Arabian cultural values (Alqahtani, 2015, p. ii). Interestingly, despite segregation of female and male students in their society, many found it easy to engage in communication with international students of the opposite gender in the United Kingdom.

Research by Razek and Coyner (2013, p. 110) contradicts the findings of Alqahtani (2015, p. ii). Specifically, Saudi students studying in the United States admitted that they behaved and studied as a group and rarely engaged in individual intercultural communication with American students. A great barrier to their intercultural communication was the students' lack of knowledge concerning communication norms and social interaction rules (Razek and Coyner, 2013, p. 113). However, some Saudi students expressed great enthusiasm over the high degree of independence that they experienced in the United States (Razek and Coyner, 2013, p. 110). Despite this valuable evidence, the findings cannot be generalised because of the small sample size and geographical limitations. The present research aims to overcome the limitations of this study by conducting the

study in Saudi Arabia rather than in Western societies (thus focusing on international students in Saudi Arabia rather than on Saudi students in international contexts) and by recruiting a larger sample size.

Another longitudinal study conducted by Alalwi (2016, p. 12) investigated whether the cultural perceptions of Saudi students who study in the United States changed over four months and whether they succeeded in developing ICC. Using pre-surveys, surveys and post-surveys, the researcher revealed that students expressed similar stereotypical views of American culture at the beginning and end of their four months at an American university. They were not properly motivated to learn about American cultural values and culture-specific aspects or to engage in intercultural communication. Alalwi (2016, p. 208) explained that students were reluctant to penetrate into American culture because a cultural dimension was not included in the teaching of L2 in Saudi Arabia. This assertion is consistent with Kinginger's (2011, p. 63) finding that the cultural dimension is not widely integrated into L2 teaching because of the prevalent view that penetration into other people's culture significantly changes students' cultures. Yet, Alalwi's (2016, p. 208) study shows that students who go abroad to learn a language do not necessarily delve into host culture. More important, the researcher failed to draw parallels between the level of L2 acquisition and development of ICC (Alalwi, 2016, p. 12). Unfortunately, the present research also did not draw any such parallels, because this was beyond the scope of this longitudinal study. The researcher included a variety of contextual factors (in addition to demographic characteristics and personality traits) as possible influencers of international students' ICC. Assessment of L2 acquisition was not deemed most important. Still, it should be noted that the results presented here are inconsistent with that of Alalwi (2016, p. 12): no correlation between intercultural communication and L2 learning was found. This finding also helps justify why the present research did not assess students' L2 acquisition.



Another relevant study by Caldwell (2013, p. ii) assessed cultural interactions of Saudi students in the United States. The results showed that despite students' general satisfaction with studying abroad, they found it difficult to interact and adjust to a culturally diverse environment. They experienced discrimination, homesickness, problems with English language and trouble making friends with American students. They also wanted more assistance in cultural adjustment and intercultural communication from their American universities (Caldwell, 2013, p. ii). The present research addresses these issues by investigating the degree to which Umm Al Qura University assists international students in their ICC development (e.g. orientation programmes, cultural advisors).

The research by Davis (2014, p. vii) further demonstrated that Saudi female students studying in American universities and colleges succeeded in developing ICC and in adjusting to a culturally diverse environment. Gathering the views of 25 Saudi female students through interviews and online surveys, Davis (2014, p. vii) revealed that the first months were challenging for these students. As they attempted to engage in intercultural communication, they experienced discrimination and acculturative stress. However, the higher their proficiency in the English language, the better their intercultural communication. The participants admitted that their persistent effort to communicate with host nationals and improve their English language skills aided their ICC, which was crucial for their personal growth and confidence (Davis, 2014, p. vii). The researcher also gathered the views of Saudi female students who arrived in the United States for their studies after 2005 (Davis, 2014, p. 3). The results align with those of Shaw (2009, p. 218), who interviewed seven Saudi females and eighteen Saudi males studying in the United States and found that their communication strategies and competencies had to be adjusted to a different cultural context. Despite initial difficulties with the English language and cultural adjustment, the Saudi students successfully adjusted their communication strategies, primarily due to increased contact with locals, which increased their ICC and resilience (Shaw, 2009, p. 218).

According to research by Alhazmi and Nyland (2013, p. 356), the move from a gender-segregated environment to a mixed-gender environment is particularly difficult for Saudi students. Interviewing two Saudi students (a male and female) studying in Australia, Alhazmi and Nyland (2013, p. 356) found that a mixed-gender environment was confusing for the male student and complex for the female student. Although the researcher focused on the experiences of only two Saudi students, the value of this pilot study is the comparison of views and perceptions between a male and female student and the identified positive impact of intercultural communication on the identities of these students. The female student acknowledged that ICC reinforced her confidence in relationships with men and her independence; the male student noted that intercultural communication facilitated his maturation and improved his relationships with women (Alhazmi, 2012, p. 8). The results highlight how development of ICC is both a challenging and important experience for Saudi students. This notion and the finding that ICC was perceived as important by these students are important for the present study, because they justify why this research focused on ICC.

In summary, the research investigating ICC development of Saudi students who study abroad has shown mixed results. Some studies found that these students adjust well to an international context and develop ICC. Others discovered challenges in reaching such goals. Importantly, however, exploring the experiences of international students in Saudi Arabia is under-researched. The present study aims to address this gap in the literature. Also, this research drew from related studies that assessed the impact of attending an orientation programme and conducted a cross-cultural research project on students' ICC development. These studies showed that international students need assistance from their universities to increase their ICC (Caldwell, 2013, p. ii).

### **3.7. Development of Intercultural Communication Competence**

Prior research (e.g. Havril, 2015, p. 565) specifies effective practices for developing ICC in Saudi students. Although this research was limited to female students, it nevertheless highlights

successful attempts to develop ICC in female students by drawing on culturally specific issues and deviating from a Western perspective on ICC. Through close observation of female students at Jazan University, Havril (2015, p. 565) revealed that they had little knowledge of and negative attitudes towards intercultural communication, thus underscoring how important it is to not teach ICC but ‘demonstrate ICC behaviour to them’. The researcher substituted the examples in the students’ course books for the examples taken from Saudi and Western cultures and reinforced them to make comparisons. Moreover, Havril (2015, p. 565) engaged female students in the discussion of diverse roles of women and widely employed interactive class activities to increase their understanding and practice of these roles.

Hall (2013, p. 126) asserts that the efficiency of ICC development in Saudi students studying abroad depends on the measures taken by the host university. For instance, Hall (2013, p. 128) proposes that placing Saudi and American students in one setting will enhance their mutual understanding and appreciation. This initiative could provide culturally diverse groups of students with an opportunity to learn each other’s cultural values and traditions more rapidly. Razek and Coyner’s (2013, p. 103) research specifies that Saudi students studying at an American university engaged in numerous activities and programmes to help them adjust to a culturally diverse environment, such as International Education Week showcases, cross-cultural dialogues, around-the-world parties and host family programmes. The university also organised events for Saudi students (e.g. Saudi Arabia days and Ramadan Iftar) to provide them with an opportunity to share their cultural values and traditions with students of other cultures. Razek and Coyner (2013, p. 114) concluded that the issue of intercultural communication should be addressed at institutional, departmental and classroom levels. They assert that development of ICC in international students is the responsibility of educators, administrators and mentors. Accordingly, the present research assessed whether initiatives offered at Umm Al Qura University (attending an orientation programme, conducting a cross-cultural research project and meeting a cultural advisor) affected international students’ ICC.

In their article, Barker and Mak (2013, p. 573) present evidence on the integration of the Excellence in Cultural Experiential Learning and Leadership (EXCELL) programme into a generic first-year pharmacy course, a human resource management course and a general communication course to improve ICC in Saudi students studying in Australia. The programme provided Saudi students with insight into various aspects of Australian culture, improved their communication skills and taught them to refuse requests. Barker and Mak (2013, p. 573) attributed EXCELL's success to the cooperation between educators and university administrators, thus confirming the results of Razek and Coyner's (2013, p. 114) study. Both studies accentuate the need to develop a wide range of intercultural communicative activities for students and educators. Again, these findings and claims were considered in the design of the present research, specifically the choice to investigate how participating in an orientation programme and meeting a cultural mentor affects international students' ICC. Contextual, demographic and personality trait factors were included in this research, because they relate to universities' and educators' involvement in students' ICC.

### **3.8. Personality Traits in the Saudi Context**

The link between personality traits and ICC has not been studied among international students in Saudi Arabia, though other studies have explored these students' personality traits (or related concepts) for different purposes. These studies demonstrate the current understanding of personality traits in the Saudi context and their varied impacts. For instance, Moor (1987, p. 82) investigated factors related to the cultural adjustment of 78 American expatriate women living in Saudi Arabia. Using a mixed-method approach, the study revealed the most important personal attributes (e.g. flexibility, adaptability, sense of humour, tolerance for differences and patience) for successful adaptation to Saudi Arabia. These attributes, however, are not personality traits per se, as are the Big Five traits.

Latzman, et al. (2015, p. 3) compared associations between psychopathy and other personality domains between university students in the United States and those in Middle Eastern Arab cultures (i.e. Egypt and Saudi Arabia). They found that psychopathy appeared relevant in both Egypt and Saudi Arabia, two contexts with remarkably different cultures than those of Western countries (Latzman, et al., 2015, p. 9). They also found similar levels of psychopathy in the Western and Middle Eastern samples, with the only difference being the trait of cold-heartedness, which was less common in the Saudi sample than in the other two (Latzman, et al., 2015, p. 9). In the same vein, Mahmood, et al. (2015, p. 67) investigated the transferability of Western concepts and questionnaires by focusing on constructing and validating an Arabic version of the Zuckerman-Kuhlman Personality Questionnaire-Medium instrument, which consists of five dimensions of activity: aggression-hostility, sociability, impulsive sensation seeking and neuroticism-anxiety. Mahmood, et al. (2015, p. 73) found that only the sociability dimension of the Arabic version was not applicable in a collectivistic society.

Fahmy, et al. (2015, p. 106) studied personality traits in Saudi Arabia and noted that they can account for the likelihood of suicide. Particularly, heightened hopelessness, neuroticism, low self-esteem, aggression, impulsiveness and other factors have been identified as possible indicators of suicidal ideation. Salah (2001, p. 20) reported a 1% suicide rate amongst all deaths in Saudi Arabia, a figure that is increasing according to the Ministry of Health. Fahmy, et al. (2015, p. 109) observed a group of polysubstance abusers in Saudi Arabia and found that their suicidal tendencies and neurotic attributes were dramatically higher than those of a control group. The authors concluded that there is a clear link between personality traits and suicidal thoughts. Almandeel (2017, p. 110) identifies how personality traits affect job satisfaction and perceptions of leadership behaviour among 343 Saudi employees working in two commercial banks in Riyadh. They found that conscientious affected job satisfaction and that bank employees high in neuroticism and conscientiousness were more likely to perceive their leaders to be transformational or transactional (Almandeel, 2017, p. 122). Although not directly relevant for

this research, these studies show the kind of personality trait research being conducted in the Saudi context.

Shinawi, et al. (2017, pp. 4322, 4327) find that personality traits greatly affected performance of a group of Saudi dental students and concluded that these traits should be considered in university selection criteria. They recommended that the Big Five Inventory should be used to identify students with the necessary qualities to succeed in their degrees. Among Saudi women, for example, the traits of agreeableness, extroversion and low neuroticism are indicators of success in leadership (Albakry, 2015, p. 67). In addition, a cross-sectional study conducted by Beaver, et al., (2015, pp. 217, 225) examined a sample of 311 school students in Jeddah, Saudi Arabia, and found that that psychopathic personality traits predicted victimisation. Again, these findings are not necessarily relevant to the present research, but they show the state of research on personality traits in the Saudi Arabian population. The present research contributes to this literature by investigating how personality traits in international students in Saudi Arabia affect their development of ICC.

### **3.9. Summary**

This literature review has identified significant gaps in the research on ICC in Saudi Arabia. Although prior research has shown how ICC is developed in international students in Arab countries other than the Kingdom of Saudi Arabia, there is an insufficient number of international (especially American) students participating in language learning programmes. To attract more students and satisfy their needs in intercultural communication, some programmes have integrated both higher and lower varieties of the Arabic language into their curricula.

The contradictory findings on the role of language in ICC highlight the need to balance language skills with socio-cultural and religious awareness. It is important to provide educators and students working and studying in Saudi Arabia with specific training in intercultural communication, such

as teaching them to understand different cultures and how to communicate with students and professors from different cultures.

The analysis in this literature review also demonstrated how most studies focused on ICC in Arab students learning English, with much research conducted outside Saudi Arabia. However, there is a shortage of research on how ICC is developed and assessed in international students learning the Arabic language. Hence, it is important to fill this gap by conducting studies on ways to reinforce ICC in international students who come to Saudi Arabia to learn its language and culture. One important step mentioned in the literature review is to provide teachers and professors working in Saudi Arabia with materials on ICC written by Saudi nationals, not by Western researchers and authors. However, even with relevant material, it is necessary to account for the particular educational contexts and heterogeneity of students, as previous research has shown heterogeneity in Saudi students' experiences abroad, despite these students belonging to a highly collectivist society. Thus, it will be interesting to study the intercultural communication of international students within a Saudi context and then draw parallels between the experiences of Saudi students studying abroad and the experiences of international students studying in Saudi Arabia.

One must consider that research using the Big Five model in Saudi Arabia is not extremely extensive. There is a lack of studies that have used this model to study international students in Saudi Arabia. Many studies reviewed in this chapter assessed the relationship between personality traits and various outcomes, but only a limited number assessed Big Five personality traits. Moreover, the broader literature reveals that there is a lack of research on assessing the relationship between personality traits or any other personal attributes and students' ICC, either abroad or in Saudi Arabia. As stressed out throughout this thesis, this research addresses these two gaps in the literature. The first gap relates to the lack of information on the relationship between personality traits and ICC in general. The second gap concerns the lack of research on

ICC, as well as the link between personality traits and ICC, among international students in Saudi Arabia in particular.



## **4. Methodology**

This section starts by delineating this study's underlying theoretical approach and the implemented research design. The methodological approach then is presented separately for the survey and interview phases of this research. In subsections that deal with this study's survey and interview phases, the primary focus is on outlining the participants, data collection tools (i.e. measures assessing demographic characteristics, contextual factors, ICC and personality traits in the survey phase and semi-structured interviews in the interview phase), procedure, process, ethical considerations and data analysis.

### **4.1. Theoretical Framework**

The Five-Factor Model (FFM) is crucial for recognising valid predictors of personality traits and for making generalisations (Costa and McCrae, 2009, p. 307; Barrick and Mount, 2012, p. 227), and it has been used successfully for higher education analysis (Block, 2010, p. 8). The framework is based on the dimensions of neuroticism (emotional stability), extroversion, openness to experience, agreeableness and conscientiousness (Rothmann and Coetzer, 2003, p. 69). The particular value of FFM is that it describes most variance in personality using a simple set of variables (McCrae, et al., 2008, p. 442). The current researcher used FFM because it is a factor-analytic model that seems to capture variability in personality (Carver and Miller, 2006, p. 2). According to Gurven, et al. (2013, p. 354), it also brings order to the chaotic profusion of personality measures.

Numerous studies highlight FFM as a valid theoretical framework across cultures (Silva and Laher, 2012, p. 22). McCrae and Terracciano (2005, p. 547) that explore FFM personality traits among college students representing 50 cultures. From this and similar research, various authors have concluded that the FFM is universal (Bouchard and Loehlin, 2001, p. 246; Gebauer, et al., 2014, p. 1075; McCrae and Suttin, 2007, p. 429). Its universality is supported by findings showing

that the FFM transcends cultural differences and that there is a covariance among traits in people of different cultural histories, lifestyles, beliefs and many other cultural and behavioural distinctions (Gurven, et al., 2013, p. 364). The FFM's universal applicability (McCrae and Sutin, 2007, p. 429) justifies its use in this research.

Within the broader literature on personality traits, studies that relied on the FFM most commonly used the Revised NEO Personality Inventory (NEO PI-R) developed by Costa and McCrae (1995, p. 21), the fathers of the Big Five personality framework. Due to licensing costs of \$70 per 10 questionnaire booklets (Miller, et al., 2017, p. 336), few academics use it for research purposes. Researchers instead devised the International Personality Item Pool (IPIP-NEO) in 1996 (Goldberg, et al., 2006, p. 86; Maples, et al., 2014, p. 1070), which contains similar but differently worded items (Johnson, 2014, p. 78). Another benefit of IPIP-NEO over NEO-PI-R is that it is free and can be accessed on a public-domain resource developed by Lewis Goldberg (Johnson, 2014, p. 79).

The IPIP-NEO and NEO PI-R both measure five broad dimensions of FFM: neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. IPIP-NEO's reliability and convergent validity with the corresponding NEO PI-R scales has been established (Gomez-Fraguela, et al., 2014, p. 54; Maples, et al., 2014, p. 1071), with some studies showing that IPIP-NEO was more efficient at predicting health behaviours (Mottus, Pullman and Alik, 2016, p. 154). The IPIP-NEO items have been used in 581 published studies and translated into 61 languages (Maples, et al., 2014, p. 1071).

The IPIP-NEO is gaining popularity for the following reasons: (1) free access, (2) ability to administer the questionnaire via the Internet without needing to ask permission and (3) the provision of scoring keys for the IPIP-NEO scales (Goldberg, et al., 2006, p. 84). However, it should be noted that researchers' freedom to use the IPIP-NEO idiosyncratically raises concerns about the possibility of fragmentation in personality research, which occurs when researchers

favour one questionnaire over another (Goldberg, et al., 2006, p. 85). Regardless, the IPIP-NEO-120 is a reliable and accessible tool for measuring the Big Five personality traits. This instrument will be more thoroughly described in section 4.6.2. 'Surveying Instruments'.

The following text outlines and discusses the dimensions of the FFM's Big Five personality traits:

1) Neuroticism, or emotional stability, 'captures the degree to which one experiences negative affect, such as anger, guilt, anxiety and sadness and includes the notion of how susceptible one is to stress' (Swangler and Jome, 2005, p. 528). This dimension also refers to the extent of emotional stability. Constantine, Okazaki and Utsey (2004, p. 231) reports that individuals who score high on this dimension are at risk of psychiatric issues. They tend to have irrational ideas and deal improperly with stress (Rothmann and Coetzer, 2003, p. 72). At the same time, social actors who demonstrate low neuroticism are more emotionally stable, calm and relaxed even in stressful situations (Rothmann and Coetzer, 2003, p. 69). Research shows that neuroticism is negatively related to intercultural adaptation and that accordingly, emotional stability is positively associated with intercultural adaptation (Wilson, Ward and Fischer, 2013, p. 900). The proposed explanation for this finding is that emotionally stable international students are better at coping with cultural differences and, hence, better at establishing effective communication with peers with different cultural backgrounds (Wilson, Ward and Fischer, 2013, p. 905).

2) According to Lukaszewski and Roney (2011, p. 409), extroversion includes personality traits such as assertiveness, expressiveness and sociability. Individuals who score high on this dimension are usually optimistic and energetic and they tend to enjoy social situations (Rothmann and Coetzer, 2003, p. 69). They are perceived as highly effective social agents (McCrae and Sutin, 2007, p. 424). On the contrary, social actors with low extroversion are characterised as reserved (Block, 2010, p. 9). According to Wilson, Ward and Fischer (2013, p. 913), international students with extroversion tend to demonstrate a higher adaptability to new cultural environments than

students who score low on this personality dimension. Thus, extroversion is positively correlated with ICC (Wilson, Ward and Fischer, 2013, p. 900).

3) Openness to experience ‘relates to people’s desire to share personal information’ (Lustig and Koester, 2010, p. 256). Open-minded individuals appreciate art, adventure, unusual experiences and emotion (Christensen, et al., 2011, p. 203). Social actors who score low on this personality dimension tend to be conservative, preferring the familiar to the novel, and their emotional responses to external factors are predominantly muted (Curseu, Stoop and Schalk, 2007, p. 125). On the contrary, social actors with high openness to experience tend to be more prepared to entertain new ideas (Gurven, et al., 2013, p. 366). Accordingly, research finds that international students who score high on the trait of openness find it easier to adapt to new cultural environments and establish effective communication with peers from different cultures, which explains their high ICC scores (Swangler and Jome, 2005, p. 528).

4) Agreeableness reflects the level of general concern for social harmony (McCrae and Sutin, 2007, p. 423). An agreeable individual is fundamentally altruistic, sympathetic to others and eager to help and in return believes that others will be equally helpful; disagreeable or antagonistic people place their own interests above those of colleagues or peers and are usually egocentric and sceptical of others’ thoughts and intentions (Rothmann and Coetzer, 2003, p. 69). McCrae, et al. (2008, p. 442) state that international students’ cooperative nature may positively affect their ability to communicate with peers from other cultural backgrounds. The evidence for this notion comes from studies showing that highly agreeable international students tend to be more interculturally competent than students who score low on agreeableness (Novikova, et al., 2017, p. 336; Ramirez, 2016, p. 103; Wilson, Ward and Fischer, 2013, p. 900). Novikova, et al. (2017, p. 337) explain such findings by noting that agreeable students, precisely because of their need for empathy and supportive relationships, increase their social learning opportunities and tend to approach rather than avoid social situations when they find themselves in new educational and

cultural contexts. These students' frequent engagement in social interactions enhances their ICC (Ramirez, 2016, p. 99).

5) Conscientiousness is another dimension of FFM, which refers to self-control and the process of planning, organising, performing and assessing tasks (Rothmann and Coetzer, 2003, p. 69). Fiske (2004, p. 75) reports that conscientious people are purposeful and determined. Social actors who score high on this dimension tend to demonstrate self-discipline and planned rather than spontaneous behaviour (Rothmann and Coetzer, 2003, p. 69). Individuals who score low on conscientiousness may be associated with compulsive or fastidious behaviour (Rothmann and Coetzer, 2003, p. 69). In their study, Ward, Bochner and Furnham (2001, p. 174) find that high scorers on this personality dimension demonstrated high productivity and performance. High conscientiousness also has been implicated in high ICC, primarily because conscientious students tend to be culturally intelligent, meaning that they pay attention to cultural differences during communication with individuals from different cultural backgrounds (Huff, Song and Gresch, 2014, p. 157).

Based on this analysis of different personality traits, the FFM appears to be a useful vantage point for exploring the relationship between international students' personality traits and ICC. As noted, research has found that all Big Five personality traits are relevant for enhancing students' intercultural adaptation (Huff, Song and Gresch, 2014, p. 157; Swangler and Jome, 2005, p. 528; Wilson, Ward and Fischer, 2013, p. 900), which could lead the present researcher to expect that all five traits should be associated with ICC. Still, the correlation between the Big Five personality traits and ICC, albeit significant, is not particularly large. For instance, a meta-analysis by Wilson, Ward and Fischer (2013, p. 900) finds small to moderate effect sizes in the association between the Big Five personality traits and intercultural adaptation, including agreeableness ( $r=0.16$ ), conscientiousness ( $r=0.22$ ), openness to experience ( $r=0.29$ ), extroversion ( $r=0.29$ ) and neuroticism ( $r=-0.32$ ). These findings suggest that the Big Five personality traits may not be the

most relevant factors for predicting international students' ICC. Other factors, such as cultural empathy and cross-cultural self-efficacy, can be stronger predictors of international students' ICC than their personality traits (Peek and Park, 2013, p. 128; Wilson, Ward and Fischer, 2013, p. 900). Thus, although FFM is a useful framework for exploring the association between personality traits and ICC, this research must consider other factors that may predict students' ICC levels, such as demographics (i.e. age, gender and country of origin) and contextual factors (i.e. length of stay in Saudi Arabia, language proficiency, type of housing, meeting a cultural advisor, working as a volunteer, attending an orientation programme and conducting a cross-cultural research project).

## **4.2. Research Design**

To assess and understand the association between personality traits and ICC among international students, the present longitudinal study used a mixed methodological approach, which 'opens the door to multiple methods, different worldviews and different assumptions, as well as to different forms of data collection and analysis' (Creswell, 2014, p. 11). Incorporating both surveys and interviews 'can help develop rich insights into various phenomena of interest that cannot be fully understood using only a quantitative or a qualitative method' (Venkatesh, Brown and Bala, 2013, p. 1). Furthermore, unlike a single-method approach of inquiry, data collected through the mixed-method approach reinforce the reliability and validity of the results while also generating more comprehensive data. Drawing on both surveys and interviews instruments allows the researcher to strengthen the advantages of both approaches and minimise their limitations (Creswell, 2014, p. 264).

Thus, in the current research, surveys and interviews are employed sequentially to gain a complete understanding of the topic. The survey phase was useful for quantifying participants' scores on the measures assessing ICC at two different times using the Assessment of Intercultural Competence approach (Fantini, 2009, p. 205) and identifying personality traits using the IPIP-

NEO-120 (Johnson, 2014, p. 79). Rasinger (2010, p. 52) notes that the primary strength of quantitative studies is their ability to assess the association between specific variables through statistical analyses. Statistical analyses also derive other vital conclusions from the data relating to demographics, trends and possible group differences (Rasinger, 2010, p. 52). Another strength of quantitative approaches is that they, in so far as the researcher ensures well-designed participant selection procedures and high representativeness of the sample, allow generalisation of the findings to a broader population (Bernard and Bernard, 2012, p. 87). By using valid and reliable assessment tools, quantitative studies can produce consistent, precise and reliable data (Mertens, 2014, p. 108). Using the quantitative approach in this research was useful for obtaining reliable data, for assessing the association between various demographic and contextual factors, ICC and personality traits and for generalising the findings to the broader population of international students in Saudi Arabia.

As discussed previously, quantitative studies reveal significant, albeit small, correlations between personality traits and ICC (Wilson, Ward and Fischer, 2013, p. 900). As noted by Mertens (2014, p. 111), interview studies can add clarity to quantitative findings by exploring individual participants' perspectives. Thus, by triangulating the data via the use of mixed methodology, this longitudinal study aims to overcome the gaps in the literature due to a lack of attempts to ensure the validity of findings on the link between personality traits and ICC.

This study sought to achieve these aims by adopting the survey methodology, whereby participants completed valid and reliable tools for measuring ICC and Big Five personality traits. The FFM was chosen over other models because its measurement tools have been adequately validated in cross-cultural samples. Thus, the adoption of the interview method in this research contributes to the literature by estimating the relationship between personality traits and ICC via the use of a tool with reliability and validity in international settings.

The method of interviewing, however, is not without its limitations. The primary weakness of this method relates to its over-reliance on numerical data (Mertens, 2014, p. 111). As noted by Resinger (2010, p. 55), quantitative assessment tools are problematic, because they provide limited response options. Thus, it is unclear whether individuals' scores on questionnaires fully reflect the variety and depth of their internal experiences, because people do not always have accurate insight into their internal states (Choy, 2014, p. 101). This notion was evident in the present research as well, as many international students underestimated or overestimated their Arabic language proficiency.

To compensate for such weaknesses of quantitative methodology, various authors suggest using qualitative research approaches (Denzin and Lincoln, 2011, p. 28; Silverman, 2016, p. 39). The primary strength of qualitative studies is that exploring participants' internal perceptions provides more in-depth information about their emotions, beliefs, experiences, attitudes and personality (Silverman, 2016, p. 84). Qualitative studies (e.g. interviews) can result in a more detailed understanding of specific phenomena than quantitative studies (Mertens, 2014, p. 120). This analysis showed that a qualitative approach was useful to delineate international students' perceptions of the degree to which their personality traits and other factors contributed to their ICC.

The particular value of conducting interviews was that this method produced results that conflicted those obtained in the survey, which encouraged further exploration and discussions. For instance, students in the survey indicated that their living arrangements (e.g. whether they lived with international students or locals) did not affect their ICC. Yet, in interviews, students expressed distress because of their lack of contact with locals, which limited their ICC. Without both approaches, this issue would be neither identified nor explored.

Qualitative studies also have fundamental limitations. According to Hagger and Chatzisarantis (2011, p. 266), qualitative studies often do not implement sufficiently rigorous approaches to data



analysis, which decreases their objectivity. Moreover, the results of qualitative research are not easily generalisable to the broader population due to low sample sizes (Denzin and Lincoln, 2011, p. 47). The best solution to overcome these limitations is a mixed-methods approach (Hagger and Chatzisarantis, 2011, p. 266; Mertens, 2014, p. 165). The divergent or convergent results produced from combining surveying and interviewing methods, for instance, enhance understanding of the phenomena being studied. Thus, the absence of one method may leave the research questions partially or totally unanswered (Hashemi, 2013, p. 829). In the present study, if only the survey methodology was adopted, the conclusion would be that living or not living with locals does not affect ICC. If only interviews were adopted, the researcher would conclude that not living with locals reduces ICC. The most balanced conclusion was reached by combining and negotiating both perspectives.

In line with the adoption of the mixed-methods approach, this research involved two distinct phases. This mixed-methods study followed a sequential, explanatory design using a quantitative study at two different times and a qualitative method for further analysis. This design helped refine both survey and interview results. It also explained the qualitative data by building on the quantitative one and vice versa (Fraenkel and Wallen, 2009, p. 561; Creswell, 2014, p. 15). In the first phase, quantitative data were collected at time 1 from 95 non-Arab students of Umm Al Qura University through two self-report surveys assessing participants' demographic characteristics, various contextual variables, ICC and personality traits. Of those 95, 53 participated in ICC re-measurement at time 2. In the second phase, 12 participants of the same sample were invited for interviews depending on their quantitative data to explore which personality traits helped them to enhance their intercultural competence in this specific context. Specific methodological aspects of the survey and interview methodology are described in sections 4.5. and 4.6., respectively.

### **4.3. Timeline of Data Collection**

The data collection for this mixed-methods study took place between April 2017 and April 2019 and involved the following four stages:

1. A pilot study to identify and correct potential problems with administration and scoring of questionnaires;
2. Survey phase to collect quantitative data via questionnaires for time 1 and gather demographic, contextual, AIC and IPIP-NEO-120 information;
3. Data collection of participants' ICC to measure development of ICC for time 2 by completing AIC; and
4. Interview phase to gather qualitative data through face-to-face interviews and combine that with survey data.

### **4.4. Pilot Study**

A pilot study was conducted to ensure reliability and validity of the translated versions of the questionnaires. A pilot study is 'a mini [version] of a full-scale study that pre-tests research instruments' (van Teijlingen and Hundley, 2002, p. 33). It serves to flag methodological pitfalls, thereby warning researchers of aspects in which the study could fail. As van Teijlingen and Hundley (2002, p. 34) state, conducting a pilot study helps researchers to

1. 'Test the adequacy of assessment tools used in the study;
2. Assess the feasibility of a full-scale study;
3. Assess the workability of the research protocol;
4. Assess the likelihood of success of the approaches;
5. Identify potential problems in the data analysis techniques; and
6. Train researchers before the full administration process' (van Teijlingen and Hundley, 2002, p. 34).

Based on Peat, et al.'s (2002, p. 123) procedures, which are used to improve the internal validity of questionnaires, the current researcher conducted the following steps:

1. Administered the questionnaire to pilot subjects in the same way as they were to be administered to the respondents in the main study;
2. Asked for feedback to identify ambiguity;
3. Recorded the time taken to complete the questionnaire;
4. Amended all ambiguous questions; and
5. Shortened, revised and re-worded questionnaire items when necessary' (Peat, et al, 2002, p. 123).

The survey instruments, outlined in section 4.5.3., were piloted with 10 randomly chosen, male students from India ( $n=1$ ), Pakistan ( $n=2$ ) Niger ( $n=1$ ), Nigeria ( $n=2$ ), Kenya ( $n=1$ ), Chechnya ( $n=1$ ), France ( $n=1$ ) and the United States ( $n=1$ ). Most (70%) were older than 23 years. These 10 students were excluded from the main study. Once feedback had been received, the instruments were revised and amendments incorporated into the final questionnaire. For the qualitative tool, the interview questions were piloted to ensure that they were clear and understandable for the interviewees. One of the 10 survey pilot participants was asked to take part in the interview pilot, with the understanding that his feedback would improve the interview process.

## **4.5. Survey**

This section describes seven aspects of this study's survey investigation: participants, data collection site, survey instruments, translation of the data collection tools, criticism of the employed data collection tools, procedure and ethical considerations and data analysis.

### **4.5.1. Participants**

This study involved data collection from international students in Saudi Arabia and was significantly based on personality trait-centred research. The researcher recruited bachelor's

degree students from the Institute of Arabic Language for Non-Native Speakers at Umm Al Qura University. As this research aimed to recruit international students studying in Saudi Arabia who represent non-native Arabic speakers, the Institute appeared to be a relevant platform for recruitment. The Institute, established in 1975, is dedicated to serving as a global destination for those aspiring to learn the Arabic language using advanced technologies. The main objectives of the Institute are as follows (Overview, 2017):

- ‘To teach Arabic language and literature to non-Arab Muslims and provide them with detailed information about Islam in a manner that helps to disseminate it;
- To help students to communicate effectively with others from different cultures;
- To cooperate with Islamic institutions and bodies in the field of teaching Arabic language to non-native speakers and spreading Da’wa (the Islamic call); and
- To organise training courses for professors who have been chosen to teach Arabic in Islamic countries’ (Overview, 2017).

Out of these objectives, only the second one was crucial for this research on ICC. The degree to which this critical objective was met, according to international students’ perspectives, will be addressed later in the results.

Participants were recruited at the Institute through the distribution of informational flyers to as many participants as possible. The flyers contained the researcher’s contact information, and potential participants were required either to contact the researcher to participate or to complete the questionnaires on the spot. Table 4.1 shows the number of students in the target population with the number of students who participated in the pilot study and this study’s surveys and interviews.

Table 4.1 Number of participants across different phases of research

Target population	All international students at the Institute of Arabic Language for Non-native Speakers ( $n = 444$ )	
Pilot study	10 participated in pilot ( $n = 10$ )	
Survey phase	Time 1	95 international students completed the AIC and IPIP-NEO-120 surveys ( $n = 95$ ).
	Time 2	53 of 95 international students completed the AIC surveys ( $n = 53$ ).
Interview phase	12 participated in the interview ( $n = 12$ )	

The number of international students who were registered at the Institute of Arabic Language for Non-Native Speakers was 444, all of whom received a free education, free housing with rich social amenities, monthly living allowance, free annual round-trip ticket home, free textbooks and free medical services (About UQU, 2017). To mitigate the impact of this generous scholarship on participants' responses, the researcher assured them that their data would remain confidential and presented in a judgement-free manner. The sample size of 95 students who completed the survey, at time 1, represented 21.4% of the target population and was consistent with most studies assessing ICC in international students (Alqahtani, 2015, p. 695; Obaid, 2015, p. 695; Razek and Coyner, 2013). The sample size thus could be generalisable to the broader population of international students in Saudi Arabia.

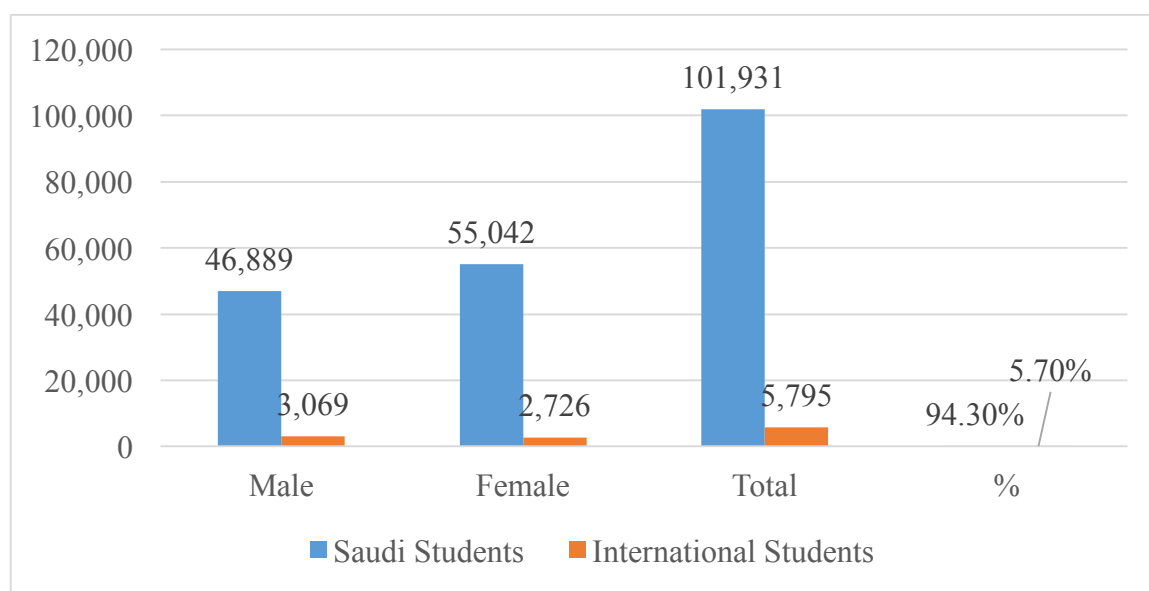
The researcher contacted the Institute's dean to seek further information about the students' genders, ages and native languages to ensure a representative sample. All students who participated in this research were international students and non-native speakers of Arabic. Unfortunately, the researcher had no data on the percentage of different ethnicities at Umm Al Qura University, which makes it challenging to judge whether the sample was representative of the broader population of students at the university in terms of ethnicities.

#### **4.5.2. Data Collection Site**

This research was conducted at Umm Al Qura University, Holy Makkah, which provides a uniquely multicultural campus compared to other universities in the Kingdom of Saudi Arabia. A multicultural student body continues to be a goal for Umm Al Qura University, and it aims to internationalise its environment at three levels, namely the composition of staff, composition of students and international student support (Umm Al Qura University, 2018a, n.p). Regarding the diverse staff, many foreign professors and lecturers teach different academic majors. According to the latest statistical analysis, 46% of the faculty come from abroad (Umm Al Qura University, 2018b, n.p). The present research, in its interview phase, included only one staff member of the university. This staff member was of Arabic nationality, which was appropriate for the investigation to establish how the orientation programme was conducted.

International students benefit from inclusion in the community and classes, which promotes interactions with Saudi nationals and other international students and thus intercultural understanding. Increasing research has found that a mixture of international and local students plays a vital role in developing students' ICC (Gurin, et al., 2004, p. 30; van de Berg, Connor-Linton and Paige, 2009, p. 25; Stemler, Imada and Sorkin, 2014, p. 45). In 2014, Umm Al Qura University had 3,069 international students (5.7% of the total number of students), as seen in Figure 4.1 (Umm Al Qura University, 2018b, n.p.). All of these students participated in classrooms with other international students, which potentially increased their ICC.

Figure 4.1 Numbers of Saudi and International Students at Umm Al Qura University, 2014



Umm Al Qura University may attract such a low number of international students because it is a state-owned university funded by the government and it does not intend to compete in the higher education market. Alternatively, it is possible that the generous scholarships awarded to international students requires the university to limit their numbers.

A particular problem faced by international students at Umm Al Qura University relates to the challenges of mixed cultural experiences. International and Saudi students tend to attend the same classes and communicate on a daily basis. The broader literature indicates that, to help international students perform well (both socially and academically) in these environments, they need sufficient advisory support (van de Berg, Connor-Linton and Paige, 2009, p. 27). For example, cultural mentors can facilitate students' ICC development (van de Berg, Connor-Linton and Paige, 2009, p. 25; Spenader and Retka, 2015, p. 22). Umm Al Qura University provides such support, which reduces the obstacles that they may face during their study-abroad experience (Umm Al Qura, 2018a, n.p). The researcher had chosen Umm Al Qura University for these reasons and because it has achieved a diversity that facilitates intercultural interactions among staff and students, thereby helping students enhance their ICC (Medina-López-Portillo, 2004, p.

196; Gutel, 2008, p. 173; Stemler, Imada and Sorkin, 2014, p. 41; Engberg and Jourian, 2015, p. 3).

#### 4.5.3. Survey Instruments

Quantitative data in this research was gathered via surveys that explored participant demographics, contextual factors, ICC and personality traits. At the beginning of this research, all participants indicated their age, gender and country of origin. The surveys also assessed Eagle and Eagle's (2003, p. 8) seven contextual factors to help understand participants' experiences as international students. Initially, students reported how long they had resided in Saudi Arabia (less than a year, one to three years and more than four years) and their Arabic language proficiency score (able to communicate only in a limited capacity, able to communicate on some concrete topics, able to speak with sufficient structural accuracy or able to speak Arabic fluently and accurately on all levels) (Fantini, 2013, p. 11). Table 4.2 shows the Arabic speaking proficiency score ranges.

Table 4.2 Arabic oral proficiency scores

<b>Oral proficiency</b>	<b>Score</b>
Able to communicate only in a limited capacity	60-70
Able to communicate on some concrete topics	71-80
Able to speak with sufficient structural accuracy	81-90
Able to speak Arabic fluently and accurately on all levels	91-100

In addition, they noted their current housing arrangements (with Saudi students, with their family or with other international students). Last, participants indicated whether they met with a cultural advisor, whether they volunteered during their studies, whether they attended an orientation



programme and whether they conducted a cross-cultural research project. These last four items were rated on a dichotomous yes/no scale.

To measure participants' ICC development, Fantini's (2009, p. 1) self-reported Assessment of Intercultural Competence (AIC) was administered at two different times, with written permission from the survey developer, Dr. Alvino Fantini. This measure was originally used in a research project conducted by the Federation of the Experiment in International Living (Fantini and Tirmizi, 2006, p. 6). The questionnaire comprises 53 items measuring four intercultural subscales: knowledge (11 statements), attitude (13 statements), awareness (11 statements) and skills (18 statements) (Fantini and Tirmizi, 2006, p. 6). Examples include 'I could cite a definition of culture and describe its components and complexities', 'while in the host country, I demonstrated willingness to adapt my behavior to communicate appropriately in the host culture (e.g., in non-verbal and other behavioral areas, as needed for different situations', while in the host culture, I realized the importance of the level of intercultural development of those I associated with (other program participants, hosts, co-workers, etc.)' and 'I could discuss and contrast various behavioural patterns in my own culture with those in the host culture'. All items were scored on a six-point Likert scale, which ranged from 1 (extremely high) to 6 (not at all). Moreover, all items on the questionnaire were reverse-scored so that higher final scores would indicate higher ICC. It took about 20 minutes to complete the questionnaire, including the instruction phase. The primary advantages of using the AIC is its usefulness for measuring students' intercultural gains during their study abroad (Fantini, 2009, p. 205). Importantly, past researchers have confirmed the reliability and validity of this tool (Fantini, 2009, p. 205). Last, the AIC was deemed useful for this research because of its relative ease of administration.

Finally, the Big Five personality traits were assessed using the IPIP-NEO-120 instrument developed by Johnson (2014, p. 79). This self-report questionnaire assessed five personality traits: neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. The

IPIP-NEO-120 consists of 120 negative and positive statements selected from the 300-item IPIP-NEO measuring five personality traits (Maples, et al., 2014, p. 1072). There were 24 items for each personality trait. Examples include ‘I worry about things’ (neuroticism subscale), ‘I feel comfortable around people’ (extroversion subscale), ‘I have a vivid imagination’ (openness to experience subscale), ‘I believe that others have good intentions’ (agreeableness subscale) and ‘I jump into things without thinking’ (conscientiousness dimension). Participants rated the degree to which different statements applied to them using a 5-point scale ranging from 1 (very inaccurate) to 5 (very accurate). Final scores were calculated by summing up all the values that were obtained on each subscale. High final scores on each subscale suggested high levels of a given personality trait. The questionnaire took approximately 30 minutes to complete.

#### **4.5.4. Translation of the Data Collection Tools**

Participants were given a choice of completing the questionnaires either in English or in Arabic, so it was necessary to translate all questionnaires into Arabic. To reduce potential challenges arising from the use of translated data collection tools,<sup>1</sup> the researcher employed the back-translation method (Hilton and Skrutkowski, 2002, p. 2). Two professional translators with degrees in translation from English to Arabic and from Arabic to English conducted the back-translation. The first translated the questionnaires into Arabic, followed by the second translator translating the Arabic version back into English (Potaka and Cochrane, 2004, p. 292). The back-translated and original versions then were compared to assess equivalence and equality the translation (Potaka and Cochrane, 2004, p. 292). Both translators addressed any inconsistencies. The shortcoming of this approach is that it does not minimise the linguistic differences between the source and target languages (Potaka and Cochrane, 2004, p. 292). To overcome this drawback,

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<sup>1</sup> As Hilton and Skrutkowski (2002, p. p.1) noted, ‘translating questionnaires for cross-cultural research is fraught with methodological pitfalls related to colloquial phrases, jargon, idiomatic expressions, word clarity and word meanings’.

the researcher provided bilingual surveys to all participants so that they could decide which language they preferred.

#### **4.5.5. Criticism of the Employed Data Collection Tools**

Research on personality traits and ICC most commonly uses self-report measures (Roberts, et al., 2006, p. 322). This study similarly employed self-report measures to assess participants' personality traits and ICC. Self-reports are used extensively in social sciences and personality psychology, including 95% of articles published in the *Journal of Personality* in 2006 (McDonald, 2008, p. 761). Self-reports are practical, efficient, inexpensive, convenient and easy to administer (McDonald, 2008, p. 94). As previously mentioned, the relative ease of administration of questionnaires was an important reason for their inclusion in this research.

However, there is ongoing debate about the efficiency of self-report measures in the psychology literature (Roberts, et al., 2006, p. 326). Such criticism states that self-report measures tend to be biased for a variety of reasons. First, self-report measures assume that people are sufficiently introspective to understand their internal processes (Gerald and George, 2010, p. 182). However, some individuals lack this insight (Quirin and Bode, 2014, p. 235). The second problem with the self-report measures relates to participants' dishonesty. Roberts, et al. (2006, p. 327) noted that, when completing self-reports, participants attempt to conceal their internal thoughts and functions from others. Self-reports also are prone to the so-called social desirability effect, whereby participants tend to present themselves in a favourable rather than realistic light (Krumpal, 2013, p. 2026). Last, self-reports may be biased by confusing language and the different cultural backgrounds of respondents (Roberts, et al., 2006, p. 323). All these issues can reduce the validity of self-reports (Paunonen and O'Neill, 2010, p. 189).

This research recognises these limitations when assessing participants' personality traits and ICC by relying on a mixed-methods approach to provide the most effective estimation of people's personality and to overcome the self-desirability bias. Combining self-reports with semi-

structured interviews was particularly useful for understanding students' personality traits and ICC. The mixed-methods approach was suitable for two reasons: it is more accurate for exploring participants' internal processes (Spain, Eaton and Funder, 2000, p. 860), and it overcomes the limitations of self-report measures (Meyer, et al., 2001, p. 145).

#### **4.5.6. Procedure and Ethical Considerations**

The procedure of this research was identical for each participant and can be easily replicated in future research. At the beginning of the study, participants were introduced to the research by learning the primary aims of the study. All participants were required to sign informed consent, whereby they confirmed that they were introduced to the research and agreed to participate. They were then provided with the four primary measures used in this research, in the following order: demographics questionnaire, a questionnaire that assessed relevant contextual factors, the AIC (Fantini, 2009, p. 196) and the IPIP-NEO-120 (Johnson, 2014, p. 79). Following the completion of the questionnaire, participants were fully debriefed to elaborate on and ensure that participants understood the purposes of the research. No participants received any compensation for participating. At the end of the study, participants were asked to provide their contact information to participate in the second phase of this research.

The ethical committee at Umm Al Qura University approved this research, which adhered to the Code of Ethics and Conduct of the British Psychological Society (2018, n.p). The author provided all participants with informed consents to ensure that participants were aware of the study's aims and potential risks and benefits of their participation (Knapp and van de Creek, 2012, p. 38). Another essential ethical grounding of this study relates to its safeguarding of participants' anonymity and confidentiality. The researcher did not collect information about participants' names. Instead, all participants were assigned a unique participation code, as recommended in the British Psychological Society guidelines (2018, n.p). Participants were allowed to withdraw from the research without providing a reason. Initially, they were encouraged to decline participation

before commencement of the research. Although instructed to contact the researcher if they wanted their data to be removed from the final analyses, no participants expressed this desire.

Finally, this research was not expected to cause any distress among participants, primarily because it did not involve an investigation of sensitive issues. Nonetheless and in line with the British Psychological Society (2018, n.p) guidelines, participants were informed that they could contact the researcher in case of distress for referral to a psychologist. No participants said that they had experienced significant distress.

#### **4.5.7. Data Analysis**

The current study's data analysis was done using SPSS statistics version 20. As a first step, the data were screened for missing values, and study variables were tested for accuracy and normality. Descriptive statistics were used to outline mean and standard deviation (SD) scores on all Big Five personality traits and ICC subscales. Similarly, frequencies statistics were used to outline the number and percentage of participants who reported different demographic characteristics (i.e. age group, gender, country of origin) and different contextual factors (i.e. length of stay in Saudi Arabia, Arabic language proficiency, type of housing, meeting a cultural advisor, volunteering, attending an orientation programme and conducting a cross-cultural research project). Following data screening, the researcher conducted reliability analyses to assess the internal consistency of the two primary measures (i.e. AIC and IPIP-NEO-120). A series of *t* test samples, one-way ANOVAs and Pearson's *r* correlations were used to assess the relationship between the participants' demographic and contextual data and their ICC and personality scores. Multiple linear regression analyses were used to explore the relationship between personality traits and ICC.

## **4.6. Interviews**

This section describes five aspects of this study's interview investigation: participants, semi-structured interviews, translation of the interviews, procedure and ethical considerations and thematic analysis.

### **4.6.1. Participants**

Past researchers note that regardless of the number of participants in the survey phase, the interview phases of mixed-method studies must include at least 10 participants to elaborate on results from the previous quantitative investigation (Patten and Newhart, 2017, p. 87). Mertens (2014, p. 128) similarly notes that the inclusion of 10 participants in interviews is a minimum requirement for reaching a saturation point whereby no new information is expected to emerge. Thus, this research aimed to include at least 10 participants in the interview phase.

The final sample comprise 12 students (six men and six women), ranging from 22 to 28 years old ( $M=23.18$ ,  $SD=1.51$ ). Participants were recruited at the end of the survey and asked to provide their contact information for inclusion in the second phase of the research. The aim was to include those students with the highest and lowest ICC scores, as this would help in contrasting the two groups and exploring their perspectives. There was some difficulty recruiting female participants, because female students in Saudi Arabia must be accompanied by a male guardian while on campus. Thus, the researcher explicitly stated that women could attend interviews with a male student accompanying them. Chapter 6 details the demographic characteristics of participants who took part in semi-structured interviews.

### **4.6.2. Semi-Structured Interviews**

Qualitative data were collected through semi-structured interviews that explored participants' intercultural behaviour and personality traits. These face-to-face interviews added clarity to the

survey results by elucidating which personality traits helped students cope with intercultural situations in a new educational context.

Interviewing participants helped the researcher elicit their points of view to achieve the specific research aim and understand the foundation of the topic (Jackson, 2012, p. 45). The study involved two types of questions identified by Patton (as cited in Fraenkel and Wallen, 2009, p. 448): experience questions, which elicited information about participants' behaviours, and opinion questions, which explored participants' thoughts, beliefs and attitudes concerning ICC. The interview consisted of the following open-ended questions, the aim of which was to obtain a meaningful understanding of how personality traits shape participants' ICC:

1. Did you participate in orientation? If so, what did you value about orientation, and what did you not like?
2. Remind me of your living arrangements (e.g. shared accommodation with locals, own private accommodation etc.) and why?
3. What factors do you feel have helped you develop your ability to communicate successfully with other people in Saudi Arabia, meaning that you are able to have a passionate connection with others, share your personal feelings easily, appreciate reactions and easily adapt to new situations.
4. Do you have your own way of solving problems that arises as a result of cultural misunderstanding?
5. How do you handle stress caused by cultural differences while communicating with others?
6. Do you feel that gender segregation limits your ability to engage and successfully interact in the new Saudi cultural environment?
7. What are the norms and taboos of the host culture you have known?

Other questions also were used in interviews, and all 12 interviewees were asked the same questions (see Table 6.2 in the Appendix for the full list of questions). Given that this research

used interviews as a means of exploring the results from the quantitative phase, most of the interview questions were constructed after completing the quantitative investigation. Thus, after presenting the results of the survey phase, Chapter 6 presents the specific interview questions that were used in this research.

The interviews were administrated and transcribed by the researcher, who recorded the interviews using a digital recorder. The researcher took notes during interview sessions to record non-verbal cues that could add meaning and context. The transcription then was denaturalised to remove pauses, coughs, moans, involuntary sounds, stutters, grammatical errors and body language. This cleaning of the data ensured an effective data analysis (Braun and Clarke, 2006, p. 84).

The language used during the interviews was either Arabic or English, depending on participant preference. None of the participants expressed a desire to communicate in their native language, so an interpreter was not needed. Three out of 12 participants preferred to speak English, whereas the rest preferred Arabic. To ensure familiarity with the topic, participants were given a copy of the questions beforehand. They were encouraged to freely express their viewpoints and share any relevant information. Last, to ensure the quality of transcripts, all participants received copies of their transcripts for review.

#### **4.6.3. Translation of the Semi-Structured Interviews**

To translate the semi-structured interviews into English, the same procedure was used as described for the survey phase. Briefly and per guidelines by Hilton and Skrutkowski (2002, p. 2), the interviews first were translated from Arabic to English by one translator and then back-translated into Arabic by a different translator, after which the two translations were compared to ensure their consistency.



#### **4.6.4. Procedure and Ethical Considerations**

Interviews were conducted in a quiet classroom at the library. Each interview lasted approximately 40-60 minutes. At the beginning of interviews, all participants were required to sign an informed consent and asked for permission to record and transcribe their interviews. During interviews, participants were instructed to express their opinions freely throughout the interview session and to talk as honestly as possible. The researcher prompted participants to elaborate on their answers when needed to obtain a clear and meaningful response. To safeguard participants' anonymity and confidentiality, interviewees were asked to choose a pseudonym. As with the survey phase, all participants were allowed to discontinue participation at any moment and without providing a reason. None of the participants expressed this desire. Following the ethical guidelines for conducting qualitative research (Saunders, Kitzinger and Kitzinger, 2015, p. 628), participants were informed about the procedure in advance so they would know what to expect.

#### **4.6.5. Thematic Analysis**

Some themes were not satisfactorily addressed in the survey. The most critical example concerned how orientation programmes negatively affected international students' ICC. Due to the failure to explore this and similar themes in the quantitative part of this investigation, the researcher chose to explore these themes in interviews via thematic analysis. The conceptual framework of the thematic analysis built on the theoretical positions of Braun and Clarke (2006, p. 79), who noted that this method has a goal of 'identifying, analysing and reporting patterns (themes) within the data' and that the 'rigorous thematic approach can produce insightful results that can answer a given study's research questions'.

The thematic analysis combined deductive and inductive approaches, which helped answer the research questions most thoroughly. In particular, the present researcher interpreted interview transcripts by paying close attention to the meaning of the data while also considering how codes

and themes helped answer the research questions. More specifically, the analysis began by identifying themes that were insufficiently explored in the survey but required to answer this longitudinal study's research questions. An example of a theme that was an outcome of the deductive process concerns the effects of an orientation programme on students' ICC. Apart from reviewing these themes, the researcher discovered new data in interviews that appeared relevant for answering the research questions. Such themes, which included the diglossic nature of Arabic, represented the outcome of the inductive process.

The literature supports the present researcher's choice to use both deductive and inductive thematic analysis. Both Braun and Clarke (2006, p. 86) and Maguire and Delahunt (2017, p. 3354) argued that a thematic analysis can never be purely inductive or deductive. Rather, researchers always have theoretical concepts or research questions in mind when analysing data, which is why a thematic analysis can never be purely inductive. Moreover, researchers cannot ignore the content of the interview transcripts themselves but instead base their analysis on the data and on the underlying research questions. Thus, a thematic analysis can never be purely deductive either.

When conducting thematic analysis, this research relied on the NVivo software, which is commonly used to gain insight from qualitative data, even in studies exploring international students' intercultural relations (Alhazmi and Nyland, 2013, p. 351; Holliday, 2017, p. 216). This software has a built-in transcription function that automatically transcribes recordings. The software stores all interview transcripts in one platform, which aids in data coding. Specifically, NVivo allows a quick and efficient categorisation and classification of specific segments of interview transcripts, which helps sort codes into themes. The software's visualisation function creates a 'theme map', so that researchers can understand the meaning of the extracted data (NVivo, 2018, n.p).

Braun and Clarke's (2006, p. 87) six-step framework was used to conduct the thematic analysis using the NVivo software. The first step involved familiarisation with the data, which was

achieved by reading and re-reading the interview transcripts, to be able to recognise patterns (Braun and Clarke, 2006, p. 89). During this step, the researcher made notes about initial impressions regarding the content of the transcripts.

The second step focused on organising the interview transcripts through coding. Rather than coding line-by-line, open coding was used. Each segment of a given transcript that appeared relevant was coded separately. According to Braun and Clarke (2006, p. 90), this type of coding is appropriate when a thematic analysis is not purely deductive. Before moving to the next step, the researcher also modified the codes whenever necessary.

The third step of the thematic analysis was to search for themes in the coded data (Braun and Clarke, 2006, p. 87). Here, the focus was finding significant patterns in participants' answers and grouping them according to their meaning. The discovered themes (e.g. Arabic diaglossia, conscientiousness and ICC, host culture contact) primarily described the data that were relevant for answering the research questions.

The fourth step centred on reviewing the themes. Following the guidelines by Braun and Clarke (2006, p. 90) and Maguire and Delahunt (2017, p. 3355), the researcher cut and pasted all text with the same code into one document, which helped organise the extracted themes. The NVivo software helped with visualisation of these extracted data. The researcher then assessed whether the data supported the extracted themes, whether there was overlap between themes and whether certain themes should be broken into subthemes.

The sixth step of the analysis involved naming and defining the identified themes and writing up the results (see Chapter 6).

## **4.7. Summary**

This chapter outlined the methodological approach of this research. In summary, this study used Costa and McCrae's (2009, p. 307) Five-Factor Model as its theoretical framework. It also used

a mixed design, combining both quantitative and qualitative research methods. The research started by conducting a pilot study, the aim of which was to test the quantitative survey and interview schedule and make any necessary adjustments. As a part of the quantitative investigation, the study recruited 95 participants at time 1 who were provided with four assessment tools: a demographics survey, a questionnaire assessing contextual factors, an AIC (Fantini, 2009, p. 196) for measuring ICC and an IPIP-NEO-120 (Johnson, 2014, p. 79) to identify participants' personality traits. Out of those 95 participants, 53 participated at time 2 to measure the development of ICC. The researcher overcame the limitations of using self-reports by conducting interviews as well. This quantitative investigation employed data analysis involving descriptive and frequencies statistics, reliability analyses, distribution analyses, t-tests, a one-way ANOVA, Pearson's correlation coefficient tests and regression analyses. These methods were chosen because they were the most appropriate for this study, as they helped summarise the data and assess the relationship between personality traits and ICC.

As a part of the qualitative investigation, the study recruited 12 participants who participated in the survey phase and in semi-structured interviews. Both survey and interviews were back-translated by two translators to ensure accuracy of translations. The data collected via interviews were analysed using thematic analysis. Importantly, both phases of this longitudinal study had sound ethical groundings. All data were anonymised and kept confidential. Participants were allowed to withdraw from the research at any point without providing a reason.

## **5. Survey Results**

This chapter presents, analyses and discusses the primary research endeavours of the study. It conveys the findings from the surveys exploring demographics, contextual factors, ICC and personality traits. Out of 95 questionnaires that were analysed and evaluated at time 1, 53 were analysed at time 2. The first assessment was conducted in April 2017 and the second in April 2019. Data were collected at two times to see whether the investigated variables and the relationships between them changed.

The chapter is divided into several sections. The first two sections discuss the response rate and the reliability and validity of the research instruments. The next section discusses the link between demographic data and ICC at time 1 and time 2. All demographic data is summarised, then the correlations between demographic variables (i.e. age, gender and country of origin) are reported. The fourth section examines Engel and Engel's (2003, p. 8) seven contextual factors (length of stay in host country, target language proficiency and competence, type of housing, presence of cultural advisor, volunteering, attending an orientation programme and conducting a cross-cultural research project) to understand how they affect ICC. This section details each contextual factor separately at time 1 and time 2, summarises the data on these factors and connects each to ICC. In the last section, participants' scores on ICC subscales and all Big Five personality traits at time 1 are summarised, and results linking personality traits to ICC are reported.

### **5.1. Response Rate**

The sample comprised international students from Umm Al Qura University in Saudi Arabia on the third week of April 2017. This time was chosen because it occurs in the middle of the school year. The survey explored the relationship between demographic information, contextual factors and personality traits and how they related to ICC. The questions sought to elicit data that would answer the research questions (whether and to what degree certain personality traits of

international students enhanced the success or failure of ICC development and how much they influenced the ability of international students to communicate effectively in an intercultural context). The survey incorporated statements related to the Big Five personality traits, as well as factors from the literature review that were deemed important in shaping ICC amongst students, particularly length of stay, type of accommodation and orientation. Table 5.1 shows the response rate in terms of gender.

Table 5.1 Response rate, by gender

		Distributed questionnaires	Returned questionnaires	Accepted questionnaires
Time 1	Men	90	87	79
	Women	30	21	16
	<b>Total</b>	<b>120</b>	<b>108</b>	<b>95</b>
Time 2	Men	43	43	43
	Women	10	10	10
	<b>Total</b>	<b>53</b>	<b>53</b>	<b>53</b>

Table 5.1 showed that, at time 1, 120 questionnaires were distributed to be completed during class. Of those, 108 students returned the surveys ( $n=87$  male students and  $n=21$  female students). After removing 13 questionnaires due to basic errors (e.g. consent form not signed, multiple answers to a single question), 95 were accepted as valid. Thus, the overall response rate at time 1 was 88% (95/108). At time 2, 43 men and 10 women returned questionnaires, which were subsequently accepted. The response rate at time 2 was 100% (53/53).

As depicted in Table 5.1, a significant gender imbalance emerges at times 1 and 2 because the total number of female respondents was considerably lower when compared to males. This disparity can be linked to the fact that, in the Kingdom of Saudi Arabia, education is segregated on the basis of gender across all levels of study from primary to tertiary levels. Thus, it was not possible for the researcher to have direct contact with female participants to encourage them to participate or provide them with face-to-face explanations. It was necessary to rely on the management of the Institute to distribute the questionnaire to the female participants, who were

located in a different building. Of the 30 questionnaires that were sent at time 1 to the female wing of the Institute, 21 were returned, 16 of which were deemed usable. Overall, the gender imbalance reflects the context of the Institute, where there are more male students (79.3%) than female (20.7%) ones (Overview, 2017). However, to reduce the gender imbalance in the interviews, the researcher asked female participants to be accompanied by male guardians.

## 5.2. Reliability and Validity

A Cronbach's Alpha test determine the reliability of the data and indicated the extent to which the data were considered reliable. This mathematically computed test quantifies reliability as a percentage expressed as a decimal. Table 5.2 shows the reliability data for all AIC components at times 1 and 2.

Table 5.2 Reliability of the components of AIC, time 1 and time 2

Components	No. of Statements	Cronbach's Alpha	
		Time 1	Time 2
Knowledge	11	0.884	0.924
Attitude	13	0.918	0.903
Awareness	18	0.929	0.927
Skills	11	0.914	0.900
Total	53	0.932	0.905

A Cronbach's Alpha of 0.7 or above is considered reliable, and the closer the figure is to 1, the greater the perceived reliability. Fantini and Tirmizi (2006, pp. 28-29) found that reliability of the AIC ranged from 0.870 to 0.968, with an overall reliability of 0.892. The results confirmed high reliability of the data at time 1, with values ranging from 0.884 to 0.929 and an overall reliability of 0.932 as shown in table 5.2. These figures indicate that the statements reliably captured the sentiments of the target respondents. Table 5.2 also shows that the data at time 2, ranging from 0.900 or above with an overall Cronbach's Alpha of 0.905, were reliable for measuring ICC.

Concerning the validity of AIC, Fantini (2007, p. 19) demonstrated that this instrument has sufficient factorial and predictive validity. Factorial validity is a type of content validity, defined as the extent to which a questionnaire measures the theoretical concepts that it is intended to measure (Bolarinwa, 2015, p. 197). Researchers seek to establish the factorial validity of an instrument by conducting confirmatory factorial analysis, which explores the interrelationships between specific items to identify clusters of items that share sufficient variation and from which it can be inferred that an instrument measures specific factors (Atkinson, et al., 2011, p. 560). In this regard, Fantini (2007, p. 19) revealed that specific AIC items load onto the factors or ICC components of knowledge, attitude, awareness or skills. Therefore, these four factors load onto the single construct of ICC, which establishes the instrument's factorial validity (Fantini, 2007, p. 21).

Predictive validity refers to a questionnaire's ability to predict future events, behaviours or other relevant outcomes (Bolarinwa, 2015, p. 198). Using a sample of 235 expatriates from various countries residing in Ecuador, Fantini (2007, p. 23) established that scores on the AIC measure predict participants' ICC. This finding demonstrates that the measure has sufficient predictive validity and is, therefore, useful for the present research.

Table 5.3 provides the reliability of components of the IPIP-NEO-120. The obtained results suggested that data integrity was again relatively high, ranging from 0.702 to 0.805 with an overall average of 0.935, thus rendering these statements as reliable and trustworthy. This result is higher than Maples, et al.'s (2014, p. 1074) research, which investigated the reliability of IPIP-NEO and found that the overall average of IPIP-NEO-120 was 0.87.



Table 5.3 Reliability of the components of IPIP-NEO-120

Components	No. of Statements	Cronbach's Alpha
Neuroticism	24	0.774
Extroversion	24	0.729
Openness	24	0.805
Agreeableness	24	0.761
Conscientiousness	24	0.702
Total	120	0.935

The IPIP-NEO-120 has factorial validity. Using confirmatory factor analysis, Johnson (2014, p. 86) demonstrated that the instrument's items load onto the five traits of neuroticism, extroversion, openness to experience, agreeableness and conscientiousness, suggesting that the IPIP-NEO-120 measures the Big Five personality traits.

Researchers also sought to determine its convergent validity. As noted by Bolarinwa (2015, p. 198), convergent validity is evident when a given measure of a concept produces the same result as other measures. In this regard, Gomez-Fraguela, et al. (2014, p. 55) found that scores on the IPIP-NEO-120 subscales correlate with subscale scores of Costa and McCrae's (1992b, p. 1) revised NEO Personality Inventory, on which the IPIP-NEO-120 was based. Similarly, Johnson (2014, p. 84) revealed that participants' scores on this instrument closely correlated with personality ratings obtained via meticulous observation of participants' behaviour. Therefore, the IPIP-NEO-120 has sufficient validity and was deemed useful for this research.

### **5.3. Demographics, Contextual Factors and Their Impact on Intercultural Communication Competence**

Demographic information was used to examine whether factors such as participants' age, gender and country of origin affect ICC development at two different time points. As such, the inclusion of questions pertaining to demographics allowed for the contextualisation and validation of extant data. In past studies, demographic factors tend to affect development of ICC (Novikova, et al.,

2017, p. 329; Ramirez, 2016, p. 92), so it was important to explore potential effects of demographic factors on ICC in the present study. This section covers the descriptive statistics of each factor at time 1 and time 2. Then, it discusses the effects of all factors separately on ICC subscales using a one-way ANOVA and independent-samples *t* test and the relationship between these factors using Pearson's correlation coefficient tests. Table 5.4 summarises the demographic information of the respondents.

Table 5.4 Demographic information of respondents, time 1 and time 2

Country of origin	Gender	=<20 years old		21-23 years old		24-26 years old		>26 years old		Total	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
India	Male	1	1			9	5			10	6
	Female	1	1			1		1	1	3	2
Pakistan	Male	2	1	5	2	9	7	1	1	17	11
	Female			1		1		1	1	3	1
Afghanistan	Male	4	2	1	1					5	3
	Female	1	1	1		1		1		4	1
Uzbekistan	Male	1	1	1		5	3			7	4
	Female										
China	Male			1		1	1			2	1
	Female			1						1	
Niger	Male	2	2	2	1	4	2	2	1	10	6
	Female			1		1	1			2	1
Nigeria	Male	2	2	5	3	7	4	1	1	15	10
	Female			1		1	1			2	1
Kenya	Male			2	2					2	2
	Female					1	1			1	1
France	Male	2		2	1	1	1			5	2
	Female										
Chechnya	Male	1				1	1	1		3	1
	Female							1		1	
THE UNITED STATES	Male			2						2	
	Female										
Frequency		17	11	26	10	43	27	9	5	95	53
%		17.9	20.8	27.4	18.9	45.3	50.9	9.4	9.4		

Table 5.4 indicates that at time 1, most ( $n=43$ ; 45.3%) participants were between 24 and 26 years of age, followed by those aged 21 to 23 years ( $n=26$ ; 27.4%), 20 years old and younger ( $n=17$ ; 17.9%) and older than 26 ( $n=9$ ; 9.4%). Among the 95 respondents, 83.2% were men ( $n=79$ ), and

16.8% were women ( $n=16$ ), which is in line with the previously mentioned gender imbalance at the Institution (only 20.7% female students). At time 2, the results in Table 5.4 shows that most participants again were aged 24-26 ( $n=27$ ; 50.9%), followed by those 20 years old or younger ( $n=11$ ; 20.8%), 21-23 years old ( $n=10$ ; 18.9%) and older than 26 ( $n=5$ ; 9.4%). Table 5.4 also shows that male participants ( $n=34$ ; 81.1%) again outnumbered female participants ( $n=10$ ; 18.9%) at time 2, although the percentage of women increased due to direct contact with the researcher via WhatsApp and email.

In terms of country of origin, 51.6% ( $n=49$ ) of participants at time 1 were from Asia, 37.9% ( $n=36$ ) were from Africa, 8.4% ( $n=8$ ) were from Europe and 2.1% ( $n=2$ ) were from the United States, as Table 5.4 shows. At time 2, Asian participants ( $n=25$ ; 47.1%) were the majority, followed by Africans (39.6%;  $n=21$ ) and Europeans (13.3%;  $n=8$ ). The percentage of African and European participants increased at time 2, and the percentage of Asians decreased. In addition, neither American nor Chinese participants participated at time 2. Most participants at times 1 and 2 originated from countries in close proximity to Saudi Arabia, including Pakistan and India, which have historical ties with Saudi Arabia, particularly following the spread of the Islamic religion.

### **5.3.1. Differences related to Age between Time 1 and Time 2**

Age's impact on ICC and its subscales was analysed using one-way analysis of variance at time 1 and time 2. The relationship between age and ICC subscales was tested using Pearson's correlation coefficient. The means and standard deviation (SD) scores presented in Table 5.5 suggest that aside from a few fluctuations in individual age group scores, there was little difference between the participants' ICC abilities at time 1 and age and older participants improved their ICC abilities at time 2.

Participants reported their age in years (20 or younger, 21-23, 24-26 and older than 26). Using one-way ANOVAs, this study explored whether age as an independent variable affected

participants' knowledge, attitude, skills, awareness and final ICC scores, which represented dependent variables. The study also used the age variable to see whether the age groups correlated with the dependent variables using Pearson's correlation coefficient tests. Table 5.5 summarises the results.

Table 5.5 Mean, standard deviation, one-way ANOVA and Pearson's correlation of age with ICC, time 1 and time 2

ICC	Time		=<20 years	21-23	24-26	>26	F	Sig	<i>r</i>
Knowledge	T1	M	36.41	33.84	33.02	34.66	.313	.816	-.049
		SD	9.07	14.71	12.37	10.14			
	T2	M	34.27	44.80	39.18	47.20	3.295	.028	.235*
		SD	12.19	6.69	9.39	5.49			
Attitude	T1	M	41.62	40.57	39.44	41.33	.114	.816	-.056
		SD	9.89	17.51	14.39	10.31			
	T2	M	47.72	49.20	47.51	53.00	.467	.028	.063
		SD	12.06	9.54	9.83	3.31			
Awareness	T1	M	60.76	50.07	52.73	55.50	1.259	.293	-.069
		SD	11.63	22.54	17.95	14.37			
	T2	M	57.00	55.00	62.44	68.40	1.417	.249	.246
		SD	13.08	15.64	14.65	8.87			
Skills	T1	M	39.82	34.76	35.44	36.66	.706	.551	-.030
		SD	9.81	13.76	12.01	9.19			
	T2	M	38.63	36.00	39.59	42.60	.692	.561	.130
		SD	10.56	9.30	8.62	4.44			
ICC	T1	M	176.12	159.26	160.70	169.50	.439	.182	.056
		SD	29.46	65.88	51.01	43.79			
	T2	M	177.63	185.00	188.74	211.20	1.381	.259	.244

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

In terms of the knowledge subscale, Table 5.5 showed that at time 1, students who were younger than 20 reported the highest knowledge (M=36.41, SD=9.07), followed by participants who were older than 26 (M=34.66, SD=10.14), 21-23 years old (M=33.84, SD=14.71) and 24-26 years old (M=33.03, SD=12.37). Results of a one-way ANOVA analysis in Table 5.5 suggested that at time 1, there were no significant differences in intercultural knowledge between different age groups ( $F(3,49)=.313, p=0.816$ ). At time 2, participants who were older than 26 (M=47.20, SD=5.49) and

21-23 years old ( $M=44.80$ ,  $SD=6.69$ ) scored considerably higher than participants who were younger than 20 ( $M=34.27$ ,  $SD=12.19$ ) and 24-26 ( $M=39.18$ ,  $SD=9.39$ ). A one-way ANOVA in Table 5.5 revealed that at time 2, age affected knowledge ( $F(3,49)=3.295$ ,  $p=0.028$ ).

Post-hoc analyses were performed to determine significant differences, but the results were inconclusive, showing no significant differences between groups. Marginally significant differences were observed between participants who were younger than 20 and 21-23 years old ( $p=0.079$ ), with higher knowledge scores observed in the 21-23 group and between participants who were younger than 21 and older than 26 ( $p=0.082$ ), with higher knowledge reported by those who were older than 26. From this finding, it appears that older international students possessed more intercultural knowledge, which tends to accumulate with age.

For further analysis, it was important to examine the relationships between the demographic factor of age and knowledge using Pearson's correlation coefficient tests to assess the strength and significance of a relationship between these variables. There was a non-significant relationship between age and knowledge at time 1 ( $r=-0.049$ ,  $p>0.05$ ), confirming the results of a one-way ANOVA, which found non-significant group differences at time 1 (see Table 5.5). In line with Byram and Nichols (2001, p. 85), which indicated that perceptions are likely to differ depending on age, the current study found a small but significant positive correlation between age and knowledge ( $r=0.235$ ,  $p<0.05$ ) at time 2. As participants' age increased, they were more likely to report higher knowledge. This finding confirms a one-way ANOVA, which revealed that participants in older age groups reported higher knowledge than participants in younger age groups.

Moving on to the attitude subscale at time 1, Table 5.5 showed that highest attitude scores were reported by participants aged 20 years old or younger ( $M=41.62$ ,  $SD=9.89$ ), followed by participants who were older than 26 ( $M=41.33$ ,  $SD=10.31$ ). Lowest attitude scores were reported by 24-26 year olds ( $M=39.44$ ,  $SD=14.39$ ), followed by 21-23 year olds ( $M=40.57$ ,  $SD=17.51$ ).

The differences in mean attitude scores between different groups, however, were not large. A one-way ANOVA conducted to test the impact of age on attitude did not show a significant impact at time 1 ( $F(3, 90)=0.114, p=0.951$ ). At time 2, participants who were older than 26 ( $M=53.00, SD=3.31$ ) showed the most positive attitude, although they did not score much higher than participants in other age groups (see Table 5.5). At time 2, a one-way ANOVA in Table 5.5 also showed no effect of age on the attitude subscale ( $F(3, 49)=0.467, p=0.951$ ). Age did not have a significant relationship with attitude at time 1 ( $r=-.056, p>0.05$ ) or at time 2 ( $r=.063, p>0.05$ ).

Looking at the awareness subscale, the 20 and older group ( $M=60.76, SD=11.63$ ) scored higher than the other age groups, though only slightly. The remaining scores showed that 21-23 year olds ( $M=50.07, SD=22.54$ ), 24-26 year olds ( $M=52.73, SD=17.95$ ) and participants older than 26 ( $M=55.50, SD=14.37$ ) scored relatively similarly for awareness. A one-way ANOVA test in Table 5.5 showed that there was no significant impact of age on awareness at time 1 ( $F(3, 88)=1.259, p=0.293$ ). At time 2, the highest mean score was generated by participants older than 26 ( $M=68.40, SD=8.87$ ) followed by participants aged 24-26 ( $M=62.44, SD=14.65$ ), younger than 20 ( $M=57.00, SD=13.08$ ) and 20-23 ( $M=55.00, SD=15.64$ ), respectively. Age did not affect awareness scores at time 2 ( $F(3, 49)=1.417, p=0.249$ ) as shown in Table 5.5. In accordance with these results, a Pearson's correlation found a non-significant correlation between age and awareness at time 1 ( $r=-0.069, p>0.05$ ) and time 2 ( $r=0.246, p>0.05$ ).

Regarding the skills subscale at time 1, the findings in Table 5.5 revealed that those aged 20 or younger indicated a slightly higher score ( $M=39.82, SD=9.81$ ) on the skills subscale than the 21-23 year olds ( $M=34.76, SD=13.76$ ), 24-26 year olds ( $M=35.44, SD=12.01$ ) and those older than 26 ( $M=36.66, SD=9.19$ ). A one-way ANOVA test showed no significant impact of age on skills at time 1 ( $F(3, 90)=0.114, p=0.951$ ) as reported in Table 5.5. At time 2, participants who were older than 26 years ( $M=42.60, SD=4.44$ ) scored the highest on the skills subscale (see Table 5.5). A one-way ANOVA test also showed no significant impact on the skills subscale at time 2 ( $F(3,$

49)=0.692,  $p=0.561$ ). In terms of the relationship between age and skills, a Pearson's correlation coefficient test in Table 5.5 supported the one-way ANOVA results and indicated a non-significant relationship between the two variables at time 1 ( $r=-0.030$ ,  $p>0.05$ ) and at time 2 ( $r=0.130$ ,  $p>0.05$ ).

Concerning the final ICC score at time 1, Table 5.5 indicated that participants who were 20 years old or younger ( $M=176.12$ ,  $SD=29.46$ ), 21-23 years old ( $M=159.26$ ,  $SD=65.88$ ), 24-26 years old ( $M=160.70$ ,  $SD=51.01$ ) and older than 26 ( $M=169.50$ ,  $SD=43.79$ ) had similar scores. A slightly higher mean was observed among those 20 years old or younger. The results of a one-way ANOVA in Table 5.5 revealed no significant group differences in ICC at time 1 ( $F(3, 90)=0.439$ ,  $p=0.182$ ). At time 2, Table 5.5 shows that participants who were 20 years old or younger scored lower ( $M=177.63$ ,  $SD=42.38$ ) than the 21-23 year olds ( $M=185.00$ ,  $SD=29.79$ ) and 24-26 year olds ( $M=188.74$ ,  $SD=27.53$ ). Students older than 26 ( $M=211.20$ ,  $SD=18.28$ ) had the highest scores. A one-way ANOVA analysis showed that age did not affect ICC at time 2 ( $F(3, 90)=1.381$ ,  $p=0.259$ ). In terms of the relationship between age and ICC, a Pearson's correlation coefficient test in Table 5.5 indicated no significant relationship between the two variables at time 1 ( $r=-.056$ ,  $p>0.05$ ) or time 2 ( $r=0.244$ ,  $p>0.05$ ).

To sum up, the current data indicated that age did not affect the scores of most ICC subscales (i.e. attitude, awareness and skills) and ICC at times 1 and 2. There was a significant effect of age on knowledge at time 2, however, with older participants scoring higher than younger participants. The effect of age on intercultural knowledge at time 2 may be because at time 1 participants were experiencing culture shock.

### **5.3.2. Differences related to Gender between Time 1 and Time 2**

This section examines whether gender significantly affected ICC subscales using independent-samples  $t$  tests at times 1 and 2. Compared to other studies showing that female participants tend to possess higher and more developed ICC than their male counterparts (van de Berg, Connor-

Linton and Paige, 2009, p. 21; Stemler, Imada and Sorkin, 2014, p. 28), the results of this study suggest that gender had no effect on ICC subscales at time 1 and time 2. Table 5.6 summarises these results.

Table 5.6 Mean, standard deviation and independent-samples *t* tests of gender and ICC, time 1 and time 2

	Gender	Mean		SD		<i>t</i> value		Sig.	
		T1	T2	T1	T2	T1	T2	T1	T2
Knowledge	Male	34.01	39.81	12.45	10.76				
	Female	34.00	40.70	11.61	5.73	.897	-.362	.417	.720
Attitude	Male	40.03	47.32	14.05	10.06				
	Female	41.73	53.00	15.39	7.10	.996	-2.086	.168	.051
Awareness	Male	53.34	59.53	18.42	14.59				
	Female	55.43	64.50	18.16	12.97	.870	-1.064	.323	.304
Skills	Male	35.84	38.90	11.72	8.82				
	Female	37.68	39.40	13.05	9.44	.563	-.151	.136	.883
ICC	Male	163.43	185.58	51.55	32.75				
	Female	165.53	197.60	55.61	23.00	.814	-1.362	.286	.279

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

Results are first presented for the knowledge subscale. An independent *t* test in Table 5.6 suggested that gender had no significant effect on knowledge at time 1 ( $t=0.897$ ,  $p=0.417$ ). Both male participants ( $M=34.01$ ,  $SD=12.45$ ) and female participants ( $M=34.00$ ,  $SD=11.61$ ) reported similar knowledge scores. Table 5.6 also revealed that gender had no significant impact on knowledge at time 2 ( $t=.362$ ,  $p=0.720$ ), even though women ( $M=40.70$ ,  $SD=5.73$ ) showed higher knowledge than men ( $M=39.81$ ,  $SD=10.76$ ). Thus, the current study found that gender had no effect on international students' knowledge in the Saudi context.

Regarding the attitude subscale, Table 5.6 showed that male participants ( $M=40.03$ ,  $SD=14.05$ ) scored slightly lower than female participants ( $M=41.73$ ,  $SD=15.39$ ). An independent-samples *t*



test revealed that there were no significant gender differences in the attitude subscale at time 1 ( $t=0.996, p=0.168$ ). At time 2, women had higher attitude scores ( $M=53.00, SD=7.10$ ) than men ( $M=47.32, SD=10.06$ ), although the difference was not significant ( $t=2.086, p=0.051$ ). Thus, it was found that gender had no effect on international students' intercultural attitude.

Table 5.6 further showed that at time 1, there was a non-significant effect of gender on awareness scores ( $t=0.870, p=0.323$ ). This finding indicates that there were no significant differences in awareness between men ( $M=53.34, SD=18.42$ ) and women ( $M=55.43, SD=18.16$ ). At time 2, gender differences in the awareness subscale also did not reach significance ( $t=1.064, p=0.304$ ), although women ( $M=64.50, SD=12.97$ ) showed a higher mean score than men ( $M=59.53, SD=14.59$ ). Thus, gender appeared to have no effect on intercultural awareness among international students in this context.

In terms of intercultural skills, there were no significant differences in skills between male ( $M=35.84, SD=11.72$ ) and female ( $M=37.68, SD=13.05$ ) participants at time 1 ( $t=0.563, p=0.136$ ). The impact of gender on the skills subscale was measured using an independent-samples  $t$  test at time 2, and the results in Table 5.6 showed no effect on intercultural skills ( $t=0.151, p=0.883$ ), although women ( $M=39.40, SD=9.44$ ) showed a slightly higher mean score than men ( $M=38.90, SD=8.82$ ). The present study thus found that gender had no impact on international students' intercultural skills.

The effect of gender was further tested in relation to ICC as a whole. An independent  $t$  test showed that at time 1, there were non-significant differences in final ICC scores ( $t=0.814, p=0.286$ ) between male ( $M=163.43, SD=51.55$ ) and female ( $M=165.53, SD=55.61$ ) participants. At time 2, women ( $M=197.60, SD=23.00$ ) outperformed men ( $M=185.58, SD=32.75$ ), although the difference was not statistically significant ( $t=1.362, p=0.279$ ).

The disparity between the findings of this research and previous studies with regard to gender can be explained in part by the nature of the research participants and the context of this investigation.

Most participants originated from Islamic countries or countries where Islam was a major religion, so it can be assumed that Islamic principles pervade their cultural norms and that there are shared societal norms in their home and host countries. As Othman, Hamzah and Hashim (2014, p. 115) pointed out, Muslim men and women share similar cultural values and understanding. Thus, gender as a potential variable in the study of ICC has limited weight and significance, given the research sample. That said, a richer analysis might have been achieved by including qualitative data to allow the findings to be triangulated. Moreover, a greater sample size with a more balanced composition of individuals from Muslim and non-Muslim societies would have allowed drawing conclusions with greater authority. Nevertheless, the findings suggest that gender is not an indication of an individual's knowledge, intercultural attitude, awareness or skills.

The literature has shown that women tend to possess higher and more developed ICC than men (van de Berg, Connor-Linton and Paige, 2009, p. 21; Stemler, Imada and Sorkin, 2014, p. 28). However, most of surveyed women (64%) in the study said that they did not interact with members of the host culture. There also was no evidence of higher ICC among women. To explore this disagreement with mainstream scholarship, interviewees were asked about gender segregation at the university and if it affected their confidence and aptitude to communicate. As will be revealed later, all participants were affected by the pronounced gender segregation at Umm Al Qura University.

### **5.3.3. Differences related to Country of Origin between Time 1 and Time 2**

In terms of the country of origin, national identity affects interactions with others in a new environment (Jackson, 2011, p. 82). The current study also found a significant effect of country of origin on ICC, but only at time 1. For example, at time 1, international students from Asia scored higher on ICC than other students. Most of the Asian students in the sample were from Pakistan and Afghanistan, which have prominent Islamic codes of behaviour. Thus, it could be that the shared cultural values between Asian students in this study and Saudi Arabians explains

their high ICC. Unfortunately, it was not possible to assess ICC competencies among participants from China or the United States at time 2, as no participants from these countries participated in the second round of testing. These participants appeared to have left the country at this stage.

To explore the effects of country of origin on ICC, this longitudinal research used a series of one-way ANOVAs, with country of origin as an independent variable with 11 levels (India, Pakistan, Afghanistan, Uzbekistan, China, Niger, Nigeria, Kenya, France, Chechnya and the United States). Different one-way ANOVAs were conducted to see how this factor affects intercultural knowledge, attitude, awareness, skills and final ICC scores at time 1 and time 2. Table 5.7 summarises the results.

Table 5.7 Mean, standard deviation and one-way ANOVA of country of origin, time 1 and time 2

Time			India	Pakistan	Afghanistan	Uzbekistan	China	Niger	Nigeria	Kenya	France	Chechnya	USA	F	Sig
Knowledge	T1	M	37.27	46.10	49.22	33.57	27.00	32.84	30.50	29.00	20.00	21.33	25.00	1.392	.000
		SD	8.13	10.95	7.12	14.32	1.73	15.83	13.61	11.57	7.44	18.50	7.07		
	T2	M	34.75	42.20	41.25	42.00		43.60	41.81	42.00	37.00	33.66		.582	.005
		SD	13.65	9.71	5.90	7.21		10.31	8.21	2.82	14.67	11.84			
Attitude	T1	M	42.36	41.57	43.25	41.85	39.00	20.61	37.11	38.40	29.40	37.66	31.50	.617	.015
		SD	11.90	11.47	10.76	9.33	9.84	17.23	18.72	13.18	16.89	16.28	16.26		
	T2	M	46.75	50.00	56.50	44.66		46.00	49.63	49.50	46.00	47.00		.539	.838
		SD	8.81	8.15	4.35	7.23		10.65	13.58	4.94	13.47	5.19			
Awareness	T1	M	57.27	55.26	59.00	49.71	49.66	48.58	48.35	42.80	42.60	47.33	49.00	.736	.006
		SD	11.41	14.93	14.42	9.69	28.04	20.02	25.58	9.41	24.80	23.67	14.14		
	T2	M	62.75	65.30	70.25	64.33		59.80	56.00	58.00	50.20	57.00		.784	.633
		SD	15.27	11.38	8.22	16.56		16.94	14.53	2.82	17.54	11.53			
Skills	T1	M	39.18	37.63	41.55	34.85	31.33	30.15	31.55	36.60	27.40	30.33	38.00	1.121	.000
		SD	13.78	10.20	9.86	11.82	4.04	7.26	15.44	9.18	11.23	19.50	5.65		
	T2	M	40.62	39.30	41.25	41.66		42.20	37.90	39.50	35.20	35.66		.345	.954
		SD	9.45	6.11	9.74	10.21		3.89	10.70	6.36	11.73	16.19			
ICC	T1	M	176.09	170.57	180.85	160.00	147.00	156.83	145.76	167.80	119.40	146.66	161.50	.989	.001
		SD	38.15	43.21	36.48	29.21	41.07	57.23	72.27	36.32	55.81	77.84	43.13		
	T2	M	184.87	196.80	209.25	192.66		191.60	185.36	189.00	168.40	173.33		.591	.797

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

The findings in Table 5.7 showed that, at time 1, Indian ( $M=37.27$ ,  $SD=10.93$ ), Pakistani ( $M=46.10$ ,  $SD=10.95$ ), Afghani ( $M=49.22$ ,  $SD=7.12$ ), Uzbek ( $M=33.57$ ,  $SD=14.32$ ) and Chinese ( $M=27.00$ ,  $SD=1.73$ ) participants reported higher knowledge scores than their counterparts from Niger ( $M=32.84$ ,  $SD=15.83$ ), Nigeria ( $M=30.50$ ,  $SD=13.61$ ), Kenya ( $M=29.00$ ,  $SD=11.57$ ), the United States ( $M=25.00$ ,  $SD=7.07$ ), France ( $M=20.00$ ,  $SD=7.449$ ) and Chechnya ( $M=21.33$ ,  $SD=18.50$ ), who scored similarly to one another. A one-way ANOVA showed a significant impact of country of origin at time 1 ( $F(3, 91)=1.392$ ,  $p=0.000$ ).

Table 5.7 revealed that at time 2, the highest knowledge scores were evident among participants from Niger ( $M=43.60$ ,  $SD=10.31$ ), Pakistan ( $M=42.20$ ,  $SD=9.71$ ), Uzbekistan ( $M=42.00$ ,  $SD=7.21$ ), Kenya ( $M=42.00$ ,  $SD=2.82$ ), Nigeria ( $M=41.81$ ,  $SD=8.21$ ) and Afghanistan ( $M=41.25$ ,  $SD=5.90$ ). Lower knowledge scores were reported by participants from France ( $M=37.00$ ,  $SD=14.67$ ), India ( $M=34.75$ ,  $SD=13.65$ ) and Chechnya ( $M=33.66$ ,  $SD=11.84$ ). A one-way ANOVA in Table 5.7 showed a non-significant impact of country of origin on knowledge at time 2 ( $F(9, 43)=.582$ ,  $p=0.804$ ).

Regarding the attitude subscale, the results in Table 5.7 showed that at time 1 participants from India ( $M=42.36$ ,  $SD=11.90$ ), Pakistan ( $M=41.57$ ,  $SD=47$ ), Afghanistan ( $M=43.25$ ,  $SD=10.76$ ), Uzbekistan ( $M=41.85$ ,  $SD=9.33$ ), China ( $M=39.00$ ,  $SD=9.84$ ) and Kenya ( $M=38.40$ ,  $SD=13.18$ ) had similar attitude scores. Most of these countries are in close geographic proximity, except for China and Kenya. Chinese and Kenyan participants, despite being from a different continent, scored similarly on attitude. Table 5.7 further revealed that lower attitude scores were reported by participants from Nigeria ( $M=37.11$ ,  $SD=18.72$ ), Chechnya ( $M=37.66$ ,  $SD=16.28$ ), the United States ( $M=31.50$ ,  $SD=16.26$ ), France ( $M=29.40$ ,  $SD=16.89$ ) and Niger ( $M=20.65$ ,  $SD=17.23$ ). A one-way ANOVA assessed whether country of origin significantly affected scores on the attitude subscale at time 1 and showed a significant effect ( $F(3, 91)=0.617$ ,  $p=0.015$ ).

At time 2, Table 5.7 revealed that the highest attitude scores were reported by participants from Afghanistan ( $M=56.50$ ,  $SD=4.35$ ), followed by Pakistan ( $M=50.00$ ,  $SD=8.15$ ), Niger ( $M=49.63$ ,  $SD=13.58$ ), Nigeria ( $M=49.50$ ,  $SD=4.94$ ), France ( $M=47.00$ ,  $SD=5.19$ ), India ( $M=46.75$ ,  $SD=8.81$ ), Kenya ( $M=46.00$ ,  $SD=10.65$ ), Chechnya ( $M=46.00$ ,  $SD=13.47$ ) and Uzbekistan ( $M=44.66$ ,  $SD=7.23$ ). A one-way ANOVA in Table 5.7 showed that the country of origin had no effect on attitude scores ( $F(9,43)=0.539$ ,  $p=0.838$ ) at time 2.

In terms of the awareness subscale, the results in Table 5.7 showed that at time 1, the highest awareness scores were evident among participants from Afghanistan ( $M=59.00$ ,  $SD=14.42$ ), India ( $M=57.27$ ,  $SD=11.41$ ) and Pakistan ( $M=55.26$ ,  $SD=14.93$ ). Slightly lower awareness scores were reported by participants from Uzbekistan ( $M=49.71$ ,  $SD=9.69$ ), China ( $M=49.66$ ,  $SD=28.04$ ), Niger ( $M=48.58$ ,  $SD=20.02$ ), Nigeria ( $M=48.35$ ,  $SD=25.58$ ), Chechnya ( $M=47.33$ ,  $SD=23.67$ ), the United States ( $M=49.00$ ,  $SD=14.14$ ), Kenya ( $M=42.80$ ,  $SD=9.41$ ) and France ( $M=42.60$ ,  $SD=24.80$ ). A one-way ANOVA found that at time 1, the country of origin had a significant effect on awareness ( $F(3, 91)=0.736$ ,  $p=0.006$ ), as revealed in Table 5.7.

At time 2, the findings in Table 5.7 showed that the highest awareness scores occurred among participants from Afghanistan ( $M=70.25$ ,  $SD=8.22$ ), followed by Pakistan ( $M=65.30$ ,  $SD=11.38$ ), Uzbekistan ( $M=64.33$ ,  $SD=16.56$ ), India ( $M=62.75$ ,  $SD=15.27$ ), Niger ( $M=59.80$ ,  $SD=16.94$ ), Kenya ( $M=58.00$ ,  $SD=2.82$ ), Chechnya ( $M=57.00$ ,  $SD=11.53$ ), Nigeria ( $M=56.00$ ,  $SD=14.53$ ) and France ( $M=50.20$ ,  $SD=17.54$ ). A one-way ANOVA revealed that country of origin at time 2 did not affect awareness ( $F(9, 43)=0.784$ ,  $p=0.633$ ). With respect to their nationalities, most participants experienced a significant increase in their overall scores from time 1 to time 2. Participants had scores that were relatively within the same range, despite being from different continents and perhaps more important, different cultures. All participants increased their intercultural awareness significantly, regardless of their averages at time 1.

At time 1, the highest scores for intercultural skills occurred among participants from Afghanistan (M=41.55, SD=9.86), India (M=39.18, SD=13.78), Pakistan (M=37.63, SD=10.20), the United States (M=38.00, SD=5.65) and Kenya (M=36.60, SD=9.18) as shown in Table 5.7. Lower scores were evident in participants from Uzbekistan (M=34.85, SD=11.82), Nigeria (M=31.55, SD=15.44), China (M=31.33, SD=4.04), Niger (M=30.15, SD=7.26), Chechnya (M=30.33, SD=19.50) and France (M=27.40, SD=11.23). A one-way ANOVA revealed that, once again, the country of origin at time 1 had a significant impact on the skills subscale ( $F(3, 91)=1.121$ ,  $p=0.000$ ), as seen in Table 5.7.

At time 2, Table 5.7 showed that participants from Niger (M=42.20, SD=3.89), Uzbekistan (M=41.66, SD=10.21), Afghanistan (M=41.25, SD=9.74) and India (M=40.62, SD=9.45) had slightly higher skills scores than participants from Pakistan (M=39.30, SD=6.11), Nigeria (M=37.90, SD=10.70), Kenya (M=39.50, SD=6.36), Chechnya (M=35.66, SD=16.19) and France (M=35.20, SD=11.73). A one-way ANOVA in Table 5.7 revealed that at time 2, the country of origin did not affect scores on the skills subscale ( $F(9, 43)=0.345$ ,  $p=0.954$ ). Whereas most participants reported a significant increase in their skills, the Afghani, Nigerian and French participants reported a modest increase. This difference indicates that even though participants from these countries are geographically and culturally distant, their recorded skills scores are relatively uniform.

Based on the results in Table 5.7, it appeared that participants from Afghanistan (M=180.85, SD=36.48), India (M=176.09, SD=38.15) and Pakistan (M=170.57, SD=43.21) had the highest final ICC scores during time 1 testing, followed by Kenya (M=167.80, SD=36.32), the United States (M=161.50, SD=43.13), Uzbekistan (M=160.00, SD=29.21), Niger (M=156.83, SD=57.23), China (M=147.00, SD=41.07), Chechnya (M=146.66, SD=77.84), Nigeria (M=145.76, SD=72.27) and France (M=119.40, SD=55.819). Interrogating the data further, a one-

way ANOVA indicated significant differences in the final ICC scores between different countries ( $F(3, 91)=0,989$   $p=0.001$ ) as shown in Table 5.7.

At time 2, participants from Afghanistan ( $M=209.25$ ,  $SD=13.72$ ), Pakistan ( $M=196.80$ ,  $SD=23.51$ ) and India ( $M=184.87$ ,  $SD=38.02$ ) again showed higher mean scores, followed by Uzbekistan ( $M=192.66$ ,  $SD=35.16$ ), Niger ( $M=191.60$ ,  $SD=35.85$ ), Nigeria ( $M=185.36$ ,  $SD=28.67$ ), Chechnya ( $M=173.33$ ,  $SD=44.50$ ) and France ( $M=168.40$ ,  $SD=44.85$ ). The results of a one-way ANOVA in Table 5.7, however, suggested a lack of significant differences in final ICC scores at time 2 between participants from different countries ( $F(9, 43)=0,591$   $p=0.797$ ).

Significant differences in ICC abilities between participants from different countries occurred only at time 1, likely because those participants came from a wider range of culturally diverse countries. At time 2, participants came from Asian countries that are similar to Saudi Arabia. For instance, at time 2, the sample contained no participants from the United States or China and fewer African participants. As Othman, Hamzah and Hashim (2014, pp. 115-116) claim, Muslims in Asia have similar cultural values. Because Islam offers specific moral and behavioural codes and guidelines on gender roles and communication, Muslims around the world have a shared understanding when visiting countries where Islam is the dominant religion. In an associated study, Wilson, Ward and Fischer (2013, p. 902) found that cultural distance and socio-cultural adaptation were correlated: international students acquire ICC more rapidly when their country of origin is similar to the new host culture in the region, climate and language. Results from the present study support this claim. For example, 93% of Asian respondents at time 1 either agreed or strongly agreed with the statement, 'I knew the essential norms and taboos of the host culture (e.g. greetings, dress, behaviour etc.)'. As will be shown later, interview participants did not perceive a pronounced cultural distance between their home and host culture, which helped these participants to acquire ICC.



#### **5.3.4. Differences related to Length of Stay between Time 1 and Time 2**

In general, there is consensus regarding the length of student stay and ICC. In theory, a longer stay in a country should increase exposure to the host culture (Engel and Engel, 2003, p. 8). A further series of analyses explored potential differences in ICC abilities among participants who stayed in Saudi Arabia for different lengths of time. A series of one-way ANOVAs were conducted where an independent variable was the length of stay with three levels (less than one year, 1-3 years and more than four years), and dependent variables were intercultural knowledge, attitude, awareness, skills and final ICC scores. Moreover, the Pearson's correlation coefficient test investigated the relationship between length of stay and ICC subscales at times 1 and 2. Table 5.8 summarises the findings.

Table 5.8 Mean, standard deviation and one-way ANOVA, The Pearson's correlation coefficient of the length of stay and ICC, time 1 and time 2

Frequency	Time		Less than 1 year	1-3 years	More than 4 years	F	Sig	<i>r</i>
	T1	Frequency	30	42	23			
		%	31.6	44.2	24.2			
	T2	Frequency	18	23	12			
		%	34	43.4	22.6			
Knowledge	T1	M	34.93	31.85	36.73	1.311	.030	0.630
		SD	12.38	13.02	10.29			
	T2	M	36.72	41.56	41.66	1.482	.237	0.247
		SD	11.65	10.10	5.46			
Attitude	T1	M	39.53	39.28	43.31	1.642	.001	0.340
		SD	14.84	14.27	13.38			
	T2	M	45.22	51.17	47.83	1.967	.151	0.501
		SD	10.03	9.62	8.84			
Awareness	T1	M	53.13	51.32	58.81	1.218	.000	0.382
		SD	19.69	18.25	16.05			
	T2	M	56.55	64.56	58.50	1.779	.179	0.960
		SD	14.72	13.99	13.33			
Skills	T1	M	34.93	35.00	39.86	1.491	.000	0.165
		SD	12.97	12.06	9.64			
	T2	M	37.11	38.69	42.41	1.334	.273	0.477
		SD	10.69	8.03	6.77			
ICC	T1	M	162.53	157.45	177.61	1.053	.001	0.358
		SD	54.48	52.66	46.24			
	T2	M	175.61	196.08	190.41	2.323	.108	0.391
		SD	34.43	29.86	24.99			

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

As shown in Table 5.8, participants who stayed in Saudi Arabia for less than a year (M=34.93, SD=12.38) had higher knowledge scores at time 1 than those who stayed for 1-3 years (M=31.85, SD=13.03). However, those who indicated greatest intercultural knowledge were participants who had been in the country for more than 4 years (M=36.73, SD=10.29). To interrogate the data further, a one-way ANOVA was run to see whether length of stay affected scores on the knowledge subscale. The results in Table 5.8 indicated a significant effect of the length of stay on knowledge scores at time 1 ( $F(2,92)=1.311, p=0.030$ ). At time 2, those who stayed in Saudi Arabia for less than a year (M=36.72, SD=11.65) had lower knowledge scores than participants

who stayed for 1-3 years ( $M=41.56$ ,  $SD=10.10$ ) and more than 4 years ( $M=41.66$ ,  $SD=5.46$ ). A one-way ANOVA revealed a non-significant effect of the length of stay on knowledge scores at time 2 ( $F(2, 50)=1.482$ ,  $p=0.237$ ).

Concerning attitude scores at time 1, the results in Table 5.8 revealed that those who had been in the country for less than a year ( $M=34.53$ ,  $SD=14.84$ ) had lower attitude scores than those who had been in the country for 1-3 years ( $M=39.28$ ,  $SD=14.27$ ). Importantly, those who had been in the country for more than 4 years displayed highest attitude scores ( $M=43.31$ ,  $SD=13.38$ ). According to the results of a one-way ANOVA, the length of stay significantly affected attitude scores at time 1 ( $F(2,92)=1.642$ ,  $p=0.001$ ). At time 2, data in Table 5.8 showed those who had been in Saudi Arabia for 1-3 years ( $M=51.17$ ,  $SD=9.62$ ) had higher attitude scores compared to students who stayed less than a year ( $M=45.22$ ,  $SD=10.03$ ) and for more than 4 years ( $M=47.83$ ,  $SD=8.84$ ). A one-way ANOVA analysis suggested that the length of stay at time 2 had no significant effect on attitude ( $F(2, 50)=1.967$ ,  $p=0.151$ ).

Moving on to the awareness subscale at time 1, participants who had been in the country for less than a year ( $M=53.13$ ,  $SD=19.69$ ) scored marginally higher than those who had been in Saudi Arabia for 1-3 years ( $M=51.32$ ,  $SD=18.35$ ). The highest awareness scores at time 1 were evident among participants who had been in the country for more than 4 years ( $M=58.81$ ,  $SD=16.5$ ). A one-way ANOVA in Table 5.8 found that the length of residency at time 1 had a significant effect on awareness ( $F(2,92)=1.218$ ,  $p=0.000$ ). In terms of the awareness subscale at time 2, the results in Table 5.8 revealed that participants who had been in the country for 1-3 years ( $M=64.56$ ,  $SD=13.99$ ) outperformed participants who had stayed for less than a year ( $M=56.55$ ,  $SD=14.72$ ) and those who had been in the country for more than 4 years ( $M=58.50$ ,  $SD=13.33$ ). A one-way ANOVA revealed that the length of residency did not affect awareness at time 2 ( $F(2, 50)=1.779$ ,  $p=0.179$ ).

For skills at time 1, participants who had been in Saudi Arabia for less than a year ( $M=34.93$ ,  $SD=12.97$ ) had lower scores than participants who had been in the Kingdom for 1-3 years ( $M=35.00$ ,  $SD=12.06$ ). Those who had been in Saudi Arabia for more than four years had the highest skills scores ( $M=39.86$ ,  $SD=9.64$ ). A one-way ANOVA in Table 5.8 revealed that length of residency significantly affected skills at time 2 ( $F(2, 92)=1.491$ ,  $p=0.000$ ). At time 2, participants who had been in Saudi Arabia for less than a year ( $M=37.11$ ,  $SD=10.69$ ) and 1-3 years ( $M=38.69$ ,  $SD=8.03$ ) had lower skills scores than participants who had been in Saudi Arabia for more than four years ( $M=42.41$ ,  $SD=6.77$ ). A one-way ANOVA revealed that the length of stay had a significant effect on skills at time 1 ( $F(2, 50)=1.491$ ,  $p=0.000$ ).

Concerning final ICC scores at time 1, participants who were in Saudi Arabia for less than a year ( $M=162.53$ ,  $SD=54.48$ ) displayed a greater mean than participants who had been in Saudi Arabia for 1-3 years ( $M=157.45$ ,  $SD=52.66$ ). The highest final ICC scores were evident among participants who had been in Saudi Arabia for more than 4 years ( $M=177.61$ ,  $SD=46.24$ ). The results of a one-way ANOVA in Table 5.8 revealed that length of stay had a significant effect on the final ICC score at time 1 ( $F(2, 92)=1.053$ ,  $p=0.001$ ). At time 2, participants who had been in Saudi Arabia for 1-3 years ( $M=196.08$ ,  $SD=29.86$ ) and more than 4 years ( $M=190.41$ ,  $SD=24.99$ ) showed a greater mean than students who stayed less than a year ( $M=175.61$ ,  $SD=34.43$ ). The results of a one-way ANOVA, however, suggested that length of residency at time 2 had no impact on ICC ( $F(2, 50)=2.323$ ,  $p=0.108$ ).

Regarding why the length of stay affected ICC abilities only at time 1, it can be argued that at time 2 (i.e. more than two years after the first assessment point), those students had resided in the country long enough so that their ICC abilities were comparable to students who at time 1 resided longer in the country.

The Pearson's correlation coefficient test investigating the relationship between length of stay and ICC dimensions at times 1 and 2 suggested no relationship with knowledge, attitude, awareness

and skills at either time (see Table 5.8). Thus, the researcher focused on the relationship between the length of stay and ICC in subsequent interviews. As will be shown later, not all participants thought that length of stay was crucial for ICC development. Instead, they emphasised the importance of factors such as a desire to immerse oneself in the host culture and Arabic language proficiency.

It would be tempting to suggest that length of stay in a country has a strong influence on an individual's cultural competence or that longer stays lead to higher ICC scores. A general look at the means, however, indicates that quality, not length, of exposure is key to improving ICC. Although based on self-assessments, this finding is nevertheless an interesting development that will be examined further during the interview phase of the research.

#### **5.3.5. Differences related to Target Language Oral Proficiency between Time 1 and Time 2**

To compare ICC abilities between participants with different Arabic language oral proficiency, participants were categorised into four groups based on ability: limited, able to speak about concrete topics, able to speak with sufficient accuracy and vocabulary and fluent on all levels. Table 5.9 presents the results of comparisons between participant groups, including one-way ANOVAs where the primary independent factor was oral proficiency with the above four levels, and the dependent variables were knowledge, attitude, awareness, skills and final ICC scores.

Table 5.9 Mean, standard deviation and one-way ANOVA of Arabic language oral proficiency and ICC, time 1 and time 2

			Limited	Able to speak about concrete topics	Able to speak with sufficient accuracy	Fluent				
Frequency	T1	Frequency	23	19	25	28	F	Sig		
		%	24.2	20	26.3	29.5				
	T2	Frequency	16	10	11	16				
		%	30.2	18.9	20.8	30.2				
Knowledge	T1	M	31.73	36.21	32.20	36.00	.892	.024		
		SD	11.05	13.25	13.54	11.33				
	T2	M	36.37	40.50	47.00	38.43			2.947	.042
		SD	11.67	10.10	6.51	8.14				
Attitude	T1	M	38.34	40.36	41.48	40.8	.210	.118		
		SD	15.31	16.49	12.50	13.63				
	T2	M	47.00	47.50	51.45	48.25			.482	.696
		SD	11.78	8.61	6.86	10.35				
Awareness	T1	M	53.50	52.94	54.45	53.74	.025	.166		
		SD	19.22	21.35	16.96	17.37				
	T2	M	56.06	61.50	63.36	62.25			.744	.531
		SD	15.89	12.03	15.25	13.60				
Skills	T1	M	34.86	35.84	38.56	35.28	.476	.041		
		SD	12.59	15.23	9.03	11.36				
	T2	M	34.25	38.80	39.81	43.31			3.192	.032
		SD	8.03	10.04	8.36	7.45				
ICC	T1	M	157.36	165.36	167.87	164.26	.164	.746		
		SD	55.07	63.13	47.66	46.32				
	T2	M	173.68	188.30	201.63	192.25			2.020	.123
		SD	35.36	30.48	27.37	26.78				

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

The findings in Table 5.9 showed that at time 1, 23 (24.2%) participants had limited capacity to communicate in Arabic, 19 (20%) were able to speak about concrete subjects, 25 (26.3%) were able to speak with sufficient structural accuracy and vocabulary and 28 (29.5%) identified themselves as fluent on all levels. At time 2, 16 (30.2%) said they had limited capacity, 10 (18.9%)

were able to speak about more concrete subjects, 11 (20.8%) reported that speak Arabic with sufficient structural accuracy and vocabulary and 16 (30.2%) said they were fluent on all levels.

Self-reporting about language proficiency has limitations. For example, the responses are likely to reflect the respondents' feelings at a given time and tend to be governed by feelings not facts. Social desirability bias can emerge, making respondents feel self-conscious and less likely to answer honestly. Labov (1972, p. 209) warned about the 'observer's paradox', wherein the act of observing causes unintentional changes in the behaviour being observed. To address these limitation, participants' Arabic oral proficiency also was assessed in interviews, which will be discussed in Section 6.2.

The results in Table 5.9 indicated that at time 1 participants with limited proficiency ( $M=31.73$ ,  $SD=11.05$ ) had the lowest mean on the knowledge subscale. Interestingly, these participants reported that they lacked techniques to learn the host language and culture. Participants who were able to speak about concrete subjects ( $M=36.21$ ,  $SD=13.25$ ) and those who identified themselves as fluent ( $M=36.00$ ,  $SD=11.33$ ) appeared to have more intercultural knowledge than those who were able to speak Arabic with sufficient structural accuracy and vocabulary ( $M=32.20$ ,  $SD=13.54$ ). To confirm these differences, a one-way ANOVA was conducted, with oral proficiency as an independent factor with four levels and intercultural knowledge scores as a dependent variable. The findings in Table 5.9 showed that target language proficiency significantly affected knowledge ( $F(3, 91)=0.892$ ,  $p=0.024$ ).

As shown in Table 5.9, participants with limited capacity in Arabic ( $M=36.37$ ,  $SD=11.67$ ) had the lowest knowledge mean at time 2 as well. Participants who were able to speak about concrete subjects ( $M=40.50$ ,  $SD=10.10$ ) and with sufficient accuracy and vocabulary ( $M=47.00$ ,  $SD=6.51$ ) appeared to have more intercultural knowledge than those who were fluent ( $M=38.43$ ,  $SD=8.14$ ). A one-way ANOVA in Table 5.9 indicated that target language proficiency had a significant effect on knowledge at time 2 as well ( $F(3, 49)=2.947$ ,  $p=0.042$ ). Bonferroni Post-Hoc tests were

conducted to identify differences between groups. These tests showed significant differences between the limited group and the sufficient group ( $p=0.036$ ), with higher knowledge scores reported by the latter. This finding suggests that as oral proficiency increases, so does intercultural knowledge.

Concerning the attitude subscale, the findings in Table 5.9 showed that participants with limited fluency ( $M=38.34$ ,  $SD=15.31$ ) had the lowest mean at time 1 as well. The other three groups had nearly the same means, including participants who were able to speak about concrete subjects ( $M=40.36$ ,  $SD=16.49$ ), those who had sufficient structural accuracy and vocabulary ( $M=41.48$ ,  $SD=12.50$ ) and those who were fluent ( $M=40.8$ ,  $SD=13.63$ ). A one-way ANOVA analysis in Table 5.9 indicated that target language proficiency had no effect on attitude ( $F(3, 91)=0.210$ ,  $p=0.118$ ). At time 2, participants with limited Arabic ( $M=47.00$ ,  $SD=11.78$ ) had the lowest mean on the attitude subscale. Participants who were able to speak about concrete subjects ( $M=47.50$ ,  $SD=8.61$ ) and fluent participants ( $M=48.25$ ,  $SD=10.35$ ) possessed more positive intercultural attitudes than those who were able to speak Arabic with sufficient structural accuracy and vocabulary ( $M=51.45$ ,  $SD=6.86$ ). A one-way ANOVA indicated that target language proficiency did not have a significant effect on knowledge at time 2 ( $F(3, 49)=0.482$ ,  $p=0.696$ ).

Regarding the awareness subscale, the results in Table 5.9 showed that participants who were able to speak Arabic with sufficient structural accuracy and vocabulary ( $M=54.45$ ,  $SD=16.96$ ) were more aware of the importance of how host culture members viewed them than participants who had limited capacity ( $M=53.50$ ,  $SD=19.22$ ), those who were able to speak about concrete subjects ( $M=52.94$ ,  $SD=21.35$ ) and those who were fluent on all levels ( $M=53.74$ ,  $SD=17.37$ ). A one-way ANOVA at time 1 indicated that target language proficiency had no effect on awareness ( $F(3, 91)=0.164$ ,  $p=0.746$ ). At time 2, participants with limited capacity in Arabic ( $M=56.06$ ,  $SD=15.89$ ) had the lowest mean on the awareness subscale, compared with participants who were able to speak about concrete subjects ( $M=61.50$ ,  $SD=12.03$ ), those who were fluent on all levels



( $M=62.25$ ,  $SD=13.60$ ) and those who were able to speak Arabic with sufficient structural accuracy and vocabulary ( $M=63.36$ ,  $SD=15.25$ ). However, a one-way ANOVA analysis again indicated that target language proficiency had no significant effect on awareness at time 2 ( $F(3, 49)=0.744$ ,  $p=0.531$ ).

The lowest mean on the skills subscale was evident among participants who could communicate only in limited capacity ( $M=34.86$ ,  $SD=12.59$ ), and the highest mean was for participants who spoke with sufficient structural accuracy and vocabulary ( $M=38.56$ ,  $SD=9.03$ ) as indicated in Table 5.9. Participants who could communicate on concrete topics ( $M=35.84$ ,  $SD=15.23$ ) scored as high as those who spoke fluently ( $M=35.28$ ,  $SD=11.36$ ). the results of a one-way ANOVA showed that oral proficiency at time 1 had a significant effect on skills ( $F(3, 91)=0.476$ ,  $p=0.041$ ). At time 2, those with limited capacity ( $M=34.25$ ,  $SD=8.03$ ) had lower skills scores than those who could communicate on concrete topics ( $M=38.80$ ,  $SD=10.04$ ) and with sufficient structural accuracy and vocabulary ( $M=39.81$ ,  $SD=8.36$ ). The highest skills score was evident among fluent participants ( $M=43.31$ ,  $SD=7.45$ ). A one-way ANOVA revealed that oral proficiency at time 2 had a significant effect on skills ( $F(3, 91)=3.192$ ,  $p=0.032$ ). Bonferroni Post-Hoc tests, which were conducted to identify significant differences between groups, showed a significant difference only between the limited group and the fluent group ( $p=0.021$ ), with higher scores for the latter. This finding indicates that intercultural skills depended on Arabic language proficiency. However, as differences were evident only between participants with lowest and highest proficiency, it seems that international students need extremely strong proficiency to outperform less fluent peers, at least when intercultural skills are concerned.

In terms of the data on final ICC scores, the results in Table 5.9 showed that the lowest ICC mean was evident among participants with limited language proficiency ( $M=157.36$ ,  $SD=55.07$ ). Those who were able to communicate on concrete topics ( $M=165.36$ ,  $SD=63.13$ ) had a similar mean as those who were able to speak Arabic fluently on all levels ( $M=164.26$ ,  $SD=46.32$ ). The group

with sufficient structural accuracy and vocabulary ( $M=167.87$ ,  $SD=47.66$ ) had the highest final ICC scores. A one-way ANOVA revealed that oral proficiency at time 1 had no effect on ICC ( $F(3, 91)=0.164$ ,  $p=0.746$ ). These figures suggest that oral language proficiency had no effect on ICC. It could be argued that not all means were equal, thus there was no way to confirm if oral proficiency was linked to high ICC. Yet, a one-way ANOVA suggested no effect of oral proficiency on ICC. At time 2, those who could communicate only in limited capacity ( $M=173.68$ ,  $SD=35.36$ ) had the lowest ICC scores. Participants who were able to communicate on concrete topics ( $M=188.30$ ,  $SD=30.48$ ) and speak fluently ( $M=192.25$ ,  $SD=26.78$ ) had similar averages. Finally, participants who were able to speak with sufficient structural accuracy and vocabulary had the highest final ICC scores ( $M=201.63$ ,  $SD=27.37$ ). A one-way ANOVA found that oral proficiency at time 2 had no significant effect on ICC ( $F(3, 49)=2.020$ ,  $p=0.123$ ).

Lack of oral proficiency may hinder international students from contact with the host culture, which in turn affects learning about the culture and developing meaningful connections with host nationals (Medina-López-Portillo, 2004, p. 193; Poyrazli, et al., 2002, p. 633). However, the data indicate that oral proficiency affected only intercultural knowledge and skills at both assessment points. It is possible that language proficiency did not affect the other two ICC abilities for two reasons: first, students in this sample may have underestimated or overestimated their Arabic language proficiency, and second, the diglossic nature of the Arabic language hindered their ability to develop ICC. These perspectives were explored in interviews and, as will be revealed later, they both hold some truth.

### **5.3.6. Differences related to Type of Housing between Time 1 and Time 2**

Regarding the type of housing at time 1, 9.5% ( $n=9$ ) of participants lived with Saudi students, 20% ( $n=19$ ) lived with their families and 70.5% ( $n=67$ ) lived with other international students, as seen in Table 5.10. At time 2, 7.5% ( $n=4$ ) of participants lived with Saudi students, 20.8% ( $n=11$ ) lived with their families and 71.7% ( $n=38$ ) lived with other international students. The findings

align with Saldana (2015, p. 74) and Neuliep (2017, p. 241), who state that during the initial stages of exposure to a new culture, international students perform better and prefer to be amongst other international students. However, living arrangements did not appear to have any significance with regard to proficiency in Arabic. Almost all fluent speakers of Arabic opted to stay with other international students, whereas only half of those with limited Arabic did the same. It is possible that participants in this research also preferred staying with other international students due to the perceived solidarity experienced by others who have moved to a new cultural context. It is also possible that Umm Al Qura University encourages international students to stay with other international students rather than with local students.

A series of one-way ANOVAs were conducted to see whether the type of housing affected ICC skills at times 1 and 2. In all of them, the type of housing was held as an independent factor with three levels: living with Saudi students, living with family and living with international students. Different one-way ANOVAs were conducted to see if this factor affected the dependent variables knowledge, attitude, awareness, skills and final ICC score. Table 5.10 summarises the results.

Table 5.10 Mean, standard deviation and one-way ANOVA of type of housing and ICC, time 1 and time 2

Time			With Saudi students	With my family	With international students	F	Sig
Frequency	T1	Frequency	9	19	67		
		%	9.5	20	70.5		
	T2	Frequency	4	11	38		
		%	7.5	20.8	71.7		
Knowledge	T1	M	35.01	31.94	30.88	.782	.060
		SD	10.62	15.97	15.18		
	T2	M	40.50	39.72	40.00	.009	.991
		SD	5.44	11.93	9.94		
Attitude	T1	M	40.54	39.57	40.11	.034	.066
		SD	12.20	18.81	18.39		
	T2	M	53.50	45.54	48.68	1.030	.364
		SD	5.80	11.02	9.66		
Awareness	T1	M	53.33	53.68	57.28	.145	.963
		SD	16.12	20.87	30.65		
	T2	M	65.50	63.63	59.02	.701	.501
		SD	21.48	12.57	14.14		
Skills	T1	M	35.65	38.05	35.88	.298	.417
		SD	11.44	12.80	14.26		
	T2	M	36.75	38.54	39.36	.171	.843
		SD	11.05	8.33	8.98		
ICC	T1	M	163.46	163.26	168.14	.026	.097
		SD	45.00	63.74	81.46		
	T2	M	196.25	187.45	187.07	.151	.860

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

The results in Table 5.10 revealed that at time 1 participants who stayed with Saudi peers had the highest knowledge scores (M=35.01, SD=10.62), followed by participants who stayed with family (M=31.94, SD=15.97) and international students (M=30.88, SD=15.18). The results of a one-way

ANOVA suggested that type of housing at time 1 did not affect knowledge ( $F(3, 91)=0.782$ ,  $p=0.060$ ). This means when it comes to staying with local students, the respondents' living arrangements did not impact their intercultural knowledge. At time 2, the three participant groups had similar knowledge scores, including participants who stayed with Saudi students ( $M=40.50$ ,  $SD=5.44$ ), with their families ( $M=39.72$ ,  $SD=11.93$ ) and with other international students ( $M=40.00$ ,  $SD=9.94$ ). A one-way ANOVA found that living arrangement at time 2 did not affect participants' knowledge ( $F(2, 50)=0.009$ ,  $p=0.991$ ) as shown in Table 5.10.

Concerning intercultural attitude ability, participants who stayed with Saudi ( $M=40.54$ ,  $SD=12.20$ ) and international ( $M=40.11$ ,  $SD=18.39$ ) students possessed more positive attitudes than their peers who stayed with their families ( $M=39.57$ ,  $SD=18.81$ ). However, a one-way ANOVA test in Table 5.10 did not show that type of housing had a significant impact on the attitude subscale at time 1 ( $F(3, 91)=0.034$ ,  $p=0.066$ ). At time 2, participants who stayed with their families ( $M=45.54$ ,  $SD=11.02$ ) were more positive than their peers who stayed with Saudi ( $M=53.50$ ,  $SD=5.80$ ) and international ( $M=48.68$ ,  $SD=9.66$ ) students. However, a one-way ANOVA showed that these differences were non-significant ( $F(2, 50)=1.030$ ,  $p=0.364$ ).

Looking at awareness scores at time 1, Table 5.10 showed that students who stayed with international students possessed the highest awareness ( $M=57.28$ ,  $SD=30.65$ ). However, those who stayed with their families ( $M=53.68$ ,  $SD=20.87$ ) and Saudi students ( $M=53.33$ ,  $SD=16.12$ ) revealed similar means. A one-way ANOVA suggested that type of housing did not significantly impact this subscale ( $F(3, 91)=0.145$ ,  $p=0.963$ ). At time 2, participants who stayed with Saudi students ( $M=65.50$ ,  $SD=21.48$ ) and with their families ( $M=63.63$ ,  $SD=12.57$ ) outperformed peers who stayed with international students ( $M=59.02$ ,  $SD=14.14$ ). A one-way ANOVA indicated that type of housing had no effect on intercultural awareness at time 2 ( $F(2, 50)=0.701$ ,  $p=0.501$ ).

In terms of the skills subscale at time 1, participants who stayed with their families ( $M=38.05$ ,  $SD=12.80$ ) had higher skills than those who stayed with Saudi students ( $M=35.65$ ,  $SD=11.44$ )

and international students ( $M=35.88$ ,  $SD=14.26$ ). A one-way ANOVA suggested that these differences were not significant ( $F(3, 91)=0.298$ ,  $p=0.417$ ). At time 2, the highest mean score was generated among participants who stayed with international students ( $M=39.36$ ,  $SD=8.98$ ), followed by participants who stayed with their families ( $M=38.54$ ,  $SD=8.33$ ) and those who stayed with Saudi students ( $M=36.75$ ,  $SD=11.05$ ). A one-way ANOVA test in Table 5.10 showed a non-significant impact of the type of housing at time 2 on the skills subscale ( $F(2, 50)=0.171$ ,  $p=0.843$ ).

Concerning the final ICC scores, the results in Table 5.10 revealed that participants who stayed with Saudi students ( $M=163.46$ ,  $SD=45.00$ ) and those who stayed with their own families ( $M=163.26$ ,  $SD=63.74$ ) had lower final ICC scores at time 1 than participants who were housed with Saudi students ( $M=168.14$ ,  $SD=81.46$ ). The one-way ANOVA showed that these group differences were non-significant ( $F(3, 91)=0.026$ ,  $p=0.097$ ). At time 2, participants who stayed with Saudi students ( $M=196.25$ ,  $SD=28.25$ ) outperformed those who stayed with their own families ( $M=187.45$ ,  $SD=34.43$ ) and those who stayed with international students ( $M=187.07$ ,  $SD=31.37$ ). A one-way ANOVA again showed that type of housing had no effect on ICC at time 2 ( $F(2, 50)=0.151$ ,  $p=0.860$ ).

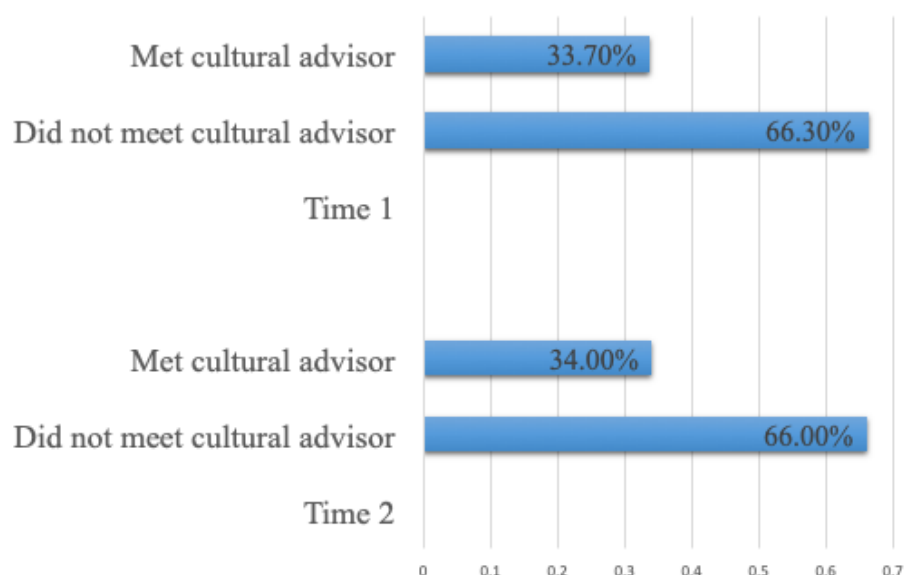
Cultural heterogeneity of students, which allows cultural interaction, is found to have positive effects on acculturation (Spitzberg and Changnon, 2009, p. 7, Stemler, Imada and Sorkin, 2014, p. 28). However, there was no relationship between the four components of ICC and type of housing. A one-way ANOVA also revealed that type of housing had no impact ICC scores (see Table 5.10). The findings do not rule out a relationship between the ICC subscales and housing, as characteristics and personality traits of the research participants also could be factors. It may be that the individuals spent most of their time alone in their rooms, perhaps speaking to friends back home via Skype or messenger, thereby negating any influence from housing type. Thus, the influence of housing context needed to be triangulated using the interviews to ensure that the

influence of context was independent from the characteristics and personality traits of the individual.

### 5.3.7. Differences related to Cultural Advisor between Time 1 and Time 2

The cultural advisor offers guidance that has a potential role in ICC development. At time 1, 33.7% ( $n=32$ ) of participants met with a cultural advisor, and 66.3% ( $n=63$ ) did not. At time 2, 34.0% ( $n=18$ ) met the cultural advisor, and 66% ( $n=35$ ) did not (Figure 5.1). Most students never met with a cultural adviser, indicating potential for further inquiry. It could be inferred such guidance was deemed unnecessary by the participants, given that 93% indicated that they felt familiar with the practices and customs in the host country due to the cultural closeness with their respective home countries.

Figure 5.1 Frequency statistics for cultural advisor



A series of independent-samples  $t$  tests were conducted to see if meeting the cultural advisor affected ICC abilities. Meeting the cultural advisor was held as an independent factor with two levels (yes versus no), and the dependent variables were knowledge, attitude, awareness, skills and final ICC scores. Table 5.11 presents the results. In contrast to the study conducted by Spenader and Retka (2015, p. 22), the current study found that the role of the cultural advisor

seemed to have no influence on intercultural abilities. This could be due to the absence of a well-trained cultural advisor who is considered ‘the most important intervention to improve student intercultural learning abroad’ (van de Berg, Connor-Linton and Paige, 2009, p. 25).

Table 5.11. Mean, standard deviation and Independent-samples *t* tests of cultural advisor and ICC, time 1 and time 2

Cultural advisor		Time 1		Time 2		Time 1		Time 2	
		M	SD	M	SD	t value	Sig.	t value	Sig.
Knowledge	Yes	34.46	14.22	42.83	8.63	.874	.134	1.605	.116
	No	33.77	11.24	38.51	10.40				
Attitude	Yes	41.90	14.09	49.55	7.33	.782	.072	.696	.490
	No	39.48	14.31	47.80	10.87				
Awareness	Yes	55.64	19.58	62.16	13.96	.723	.275	.624	.537
	No	52.72	17.69	59.60	14.62				
Skills	Yes	36.84	12.32	40.94	8.50	.844	.196	1.171	.249
	No	35.80	11.77	38.00	8.98				
ICC	Yes	169.22	57.33	195.50	27.82	.717	.183	1.352	.184
	No	160.96	49.18	183.91	32.64				

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

Initially, the findings of an independent-samples *t* test in Table 5.11 showed that at time 1 there was no significant difference in knowledge scores between participants who did (M=34.46, SD=14.22) and did not (M=33.77, SD=11.24) meet a cultural advisor ( $t(94)=0.874, p=0.134$ ). At time 2, the results showed that this variable had no significant effect on knowledge ( $t(52)=1.605, p=0.116$ ), although participants who met a cultural advisor (M=42.83, SD=8.63) had higher knowledge scores than those who did not (M=38.51, SD=10.40).

Regarding the attitude subscale at time 1, the independent-samples *t* test found no significant difference between participants who did (M=41.90, SD=14.09) and those who did not (M=39.48,



SD=14.31) meet a cultural advisor ( $t(94)=0.782, p=0.072$ ). At time 2, participants who met cultural advisor ( $M=49.55, SD=7.33$ ) had higher knowledge scores than those who did not ( $M=47.80, SD=10.87$ ). The independent-samples  $t$  test in Table 5.11 showed that these differences were not significant ( $t(52)=0.696, p=0.490$ ).

Meeting with a cultural advisor had no significant effect impact on awareness at time 1 ( $t(94)=0.723, p=0.275$ ), meaning that there were no significant differences between participants who met ( $M=55.64, SD=19.58$ ) and did not meet ( $M=52.72, SD=17.69$ ) a cultural advisor, as revealed in Table 5.11. At time 2, participants who met a cultural advisor ( $M=62.16, SD=13.96$ ) did better than those who did not ( $M=59.60, SD=14.62$ ). The independent-samples  $t$  test in Table 5.11 showed no significant differences ( $t(52)=0.624, p=0.537$ ).

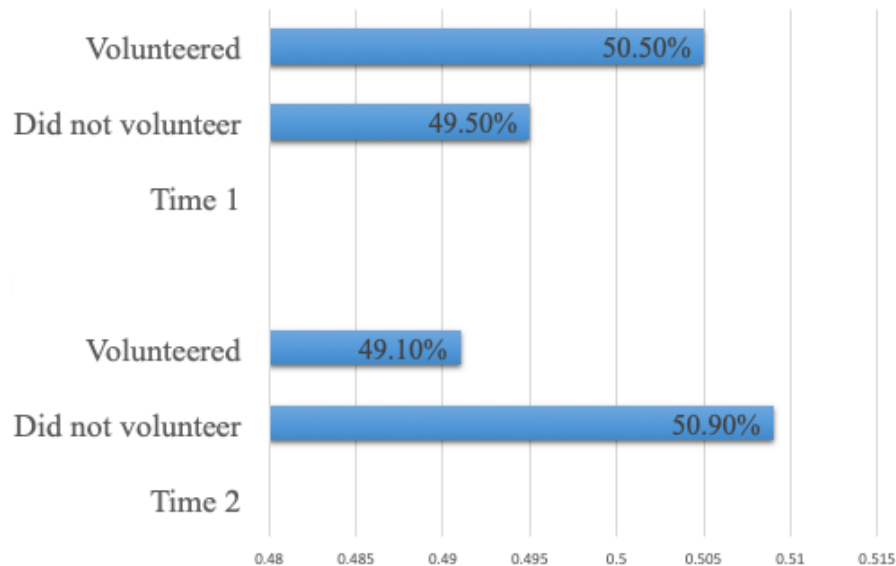
In terms of the skills subscale at time 1, there was no significant differences between participants who met ( $M=36.84, SD=12.32$ ) and those who did not meet ( $M=35.80, SD=11.77$ ) a cultural advisor ( $t(94)=0.844, p=0.196$ ). At time 2, participants who met cultural advisor ( $M=40.94, SD=8.50$ ) did better than those who did not ( $M=38.00, SD=8.98$ ). The independent-samples  $t$  test in Table 5.11 showed no significant effect of cultural advisor on attitude at time 2 ( $t(52)=1.171, p=0.249$ ).

Finally, an independent-samples  $t$  test was conducted to test whether final ICC score was impacted by meeting with the cultural advisor. At time 1, there were no significant differences between scores for those who met ( $M=169.22, SD=57.33$ ) and those who did not meet ( $M=160.96, SD=49.18$ ) the advisor ( $t(94)=0.717, p=0.183$ ). At time 2, participants who met a cultural advisor ( $M=195.50, SD=27.82$ ) outperformed those who did not ( $M=183.91, SD=32.64$ ). The independent-samples  $t$  test in Table 5.11 showed no significant effect of meeting a cultural advisor on ICC scores at time 2 ( $t(52)=1.352, p=0.184$ ). This finding may be due to the absence of a well-trained cultural advisor and merits further investigation.

### 5.3.8. Differences related to Volunteering between Time 1 and Time 2

Figure 5.2 shows that, at time 1, 50.5% ( $n=48$ ) of the participants volunteered during their studies, while 49.5 % ( $n=47$ ) did not. At time 2, 49.1% ( $n=26$ ) of the participants volunteered, and 50.9% ( $n=27$ ) did not.

Figure 5.2 Frequency statistics for volunteering



A series of independent-samples  $t$  tests were conducted with volunteering as an independent factor (with two levels: yes or no) and knowledge, attitude, awareness, skills and final ICC scores as dependent variables. Table 5.12 shows the results.

Table 5.12 Mean, standard deviation and independent-samples *t* test of volunteering and ICC, time 1 and time 2

Volunteering		Time 1		Time 2		Time 1		Time 2	
		M	SD	M	SD	t value	Sig.	t value	Sig.
Knowledge	Yes	35.81	10.27	41.88	9.47	.874	.000	1.377	.174
	No	32.17	13.87	38.14	10.26				
Attitude	Yes	40.91	12.91	48.15	11.03	.305	.500	-.175	.862
	No	39.67	15.55	48.62	8.60				
Awareness	Yes	54.06	16.50	59.88	13.42	.126	.601	-.291	.772
	No	53.34	20.11	61.03	15.36				
Skills	Yes	37.81	9.81	40.15	7.14	.844	.001	.936	.354
	No	34.46	13.61	37.88	10.24				
ICC	Yes	168.56	45.24	190.07	28.00	.311	.191	.507	.61
	No	158.88	58.08	185.70	34.60				

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

At time 1, the findings in Table 5.12 indicated there were significant effects of volunteering on knowledge ( $t(94)=0.874$   $p=0.000$ ) and skills ( $t(52)=0.844$   $p=0.001$ ). The mean scores for knowledge ( $M=35.81$ ,  $SD=10.27$ ) and skills ( $M=37.81$ ,  $SD=9.81$ ) were higher among participants who volunteered than the mean scores for knowledge ( $M=32.17$ ,  $SD=13.87$ ) and skills ( $M=34.46$ ,  $SD=13.61$ ) for their counterparts who did not. This finding suggests that volunteering helped developed higher intercultural knowledge and skills. However, at time 2, volunteering had no significant effect on knowledge ( $t(94)=1.377$ ,  $p=0.174$ ) or skills ( $t(52)=0.936$ ,  $p=0.354$ ) as shown in Table 5.12. The mean knowledge ( $M=41.88$ ,  $SD=9.47$ ) and skills scores ( $M=40.15$ ,  $SD=7.14$ ) for volunteers were not significantly higher than mean knowledge ( $M=38.14$ ,  $SD=10.26$ ) and skills scores ( $M=37.88$ ,  $SD=10.24$ ) for peers who did not.

Concerning the attitude and awareness subscales at time 1, Table 5.12 showed that volunteering had no significant effects on attitude ( $t(94)=0.305$ ,  $p=0.500$ ) or awareness ( $t(52)=0.126$ ,  $p=0.601$ ). Volunteers' mean score for attitude ( $M=40.91$ ,  $SD=12.91$ ) and awareness ( $M=54.06$ ,

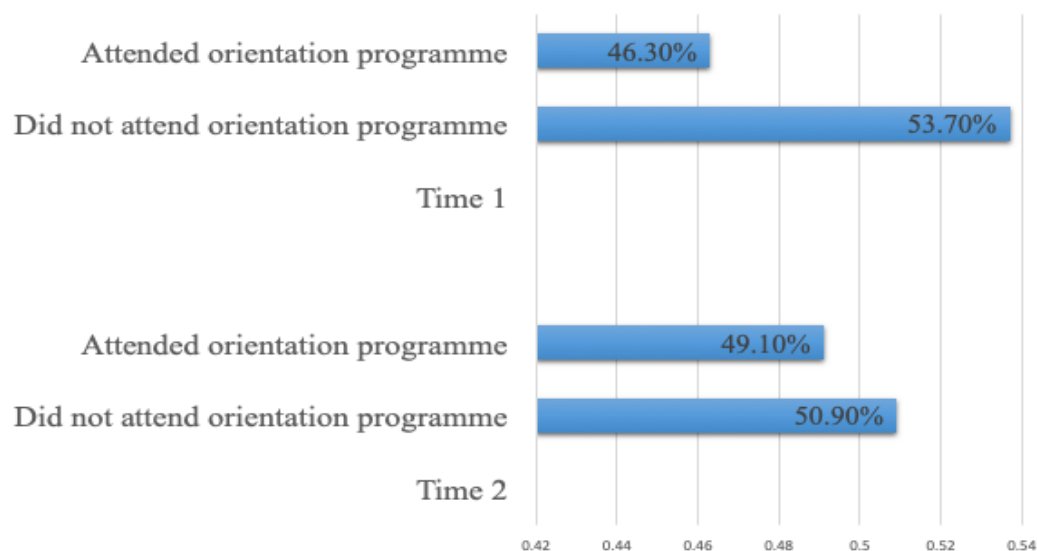
SD=16.50) were similar to non-volunteers for attitude ( $M=39.67$ ,  $SD=15.55$ ) and awareness ( $M=53.34$ ,  $SD=20.11$ ). At time 2, volunteering also had no effect on attitude ( $t(94)=-0.175$ ,  $p=0.862$ ) or awareness ( $t(52)=-0.291$ ,  $p=0.772$ ). Attitude ( $M=48.15$ ,  $SD=11.03$ ) and awareness ( $M=59.88$ ,  $SD=13.42$ ) scores of volunteers were similar to attitude ( $M=48.62$ ,  $SD=8.60$ ) and awareness scores ( $M=61.03$ ,  $SD=15.36$ ) of non-volunteers.

Finally, there were no significant differences in final ICC scores at time 1 between those who volunteered ( $M=168.56$ ,  $SD=45.24$ ) and those who did not ( $M=158.88$ ,  $SD=58.08$ ) ( $t(94)=0.311$ ;  $p=0.191$ ). At time 2, an independent-samples  $t$  test again in Table 5.12 showed that volunteering had no impact on ICC ( $t(52)=0.507$ ;  $p=0.615$ ), with average means for volunteers ( $M=190.07$ ,  $SD=28.00$ ) similar to those for non-volunteers ( $M=185.70$ ,  $SD=34.60$ ).

### 5.3.9. Differences related to Orientation Programme between Time 1 and Time 2

Attending an orientation programme was included in the study to determine whether such attendance had any significant effect on ICC subscales. Figure 5.3 shows that at time 1, 46.3% ( $n=44$ ) attended orientation, and 53.7% ( $n=51$ ) did not. At time 2, 49.1% ( $n=26$ ) attended, and 50.9% ( $n=27$ ) did not attend the orientation programme.

Figure 5.3 Frequency statistics for orientation programme



To explore whether there were significant differences between ICC abilities of those who did and did not attend an orientation programme, independent-samples *t* tests were conducted, with orientation programme as the independent variable with two levels (yes versus no), and knowledge, attitude, awareness, skills and final ICC scores as dependent variables. Table 5.13 presents the results.

Table 5.13 Mean, standard deviation and independent-samples *t* test of orientation programme and ICC, time 1 and time 2

Orientation programme		Time 1		Time 2		Time 1		Time 2	
		M	SD	M	SD	<i>t</i> value	Sig.	<i>t</i> value	Sig.
Knowledge	Yes	37.52	10.60	40.61	10.04	.672	.139	.451	.654
	No	30.98	12.87	39.37	10.05				
Attitude	Yes	44.39	11.14	49.11	8.91	.624	.082	.524	.603
	No	36.86	15.64	47.70	10.66				
Awareness	Yes	58.97	13.47	63.84	11.98	.713	.080	1.724	.091
	No	49.08	20.71	57.22	15.80				
Skills	Yes	39.81	8.76	42.26	6.82	.742	.081	2.825	.070
	No	33.00	13.35	35.85	9.54				
ICC	Yes	179.57	38.05	195.84	28.83	.853	.101	1.872	.067

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

Data in Table 5.13 revealed that at time 1, attending an orientation programme had no significant effect on the knowledge subscale ( $t(94)=0.672$   $p=0.139$ ), meaning that participants who attended orientation ( $M=37.52$ ,  $SD=10.60$ ) had similar knowledge scores as those who did not attend ( $M=30.98$ ,  $SD=12.87$ ). At time 2, results again showed that orientation had no impact on knowledge ( $t(52)=0.451$ ,  $p=0.654$ ), with relatively similar scores reported by those who did ( $M=41.47$ ,  $SD=10.48$ ) and those who did not ( $M=39.27$ ,  $SD=9.79$ ) attend.

In terms of the attitude subscale at time 1, the results of the independent-samples *t* test in Table 5.13 revealed that showed that orientation had no significant effect on attitude ( $t(94)=0.624$ ,  $p=0.082$ ). The mean attitude scores for those who attended ( $M=44.39$ ,  $SD=11.14$ ) were similar to those who did not ( $M=36.86$ ,  $SD=15.64$ ). At time 2, orientation also had no significant effect on attitude ( $t(52)=0.524$ ,  $p=0.603$ ), with those who attended ( $M=49.11$ ,  $SD=8.91$ ) showing similar scores as those who did not ( $M=47.70$ ,  $SD=10.66$ ).

According to Byram, Gribkova and Starkey (2002, p. 7), attitude is a series of feelings and characteristics, including openness to experience and the ability to suspend disbelief about other cultures. At present, the findings suggest that orientation did not promote positive attitudes, though this finding does not necessarily discount the research and empirical findings presented by Shiri (2015, p. 541) and Palmer (2013, p. 59). Both authors regard interaction with local communities (e.g. orientations) as beneficial to ICC. Rather than contesting these findings, it could be argued that the lack of effect may instead reflect the quality of the orientation programmes offered by the university. This particular issue was examined in the interviews and is discussed there.

Results in Table 5.13 further suggested that orientation had no significant impact on awareness at time 1 ( $t(94)=0.713$ ,  $p=0.080$ ). Those who attended ( $M=58.97$ ,  $SD=13.47$ ) outperformed participants who did not ( $M=49.08$ ,  $SD=20.71$ ), but these differences were not statistically significant. At time 2, orientation still had no significant effect on awareness, ( $t(52)=1.724$ ,  $p=0.091$ ), with those who attended ( $M=63.84$ ,  $SD=11.98$ ) having similar awareness scores as those who did not ( $M=57.22$ ,  $SD=15.80$ ). The results indicated that orientation did affect the awareness subscale, though it is unclear why, based on the analysis. It could be due to how orientation was conducted or the impression it left on participants with regard to emphasising or reaffirming stereotypes. The qualitative phase will investigate the dynamics of orientation to explore this issue in further detail.

Byram, Gribkova and Starkey (2002, pp. 7-9) referred to skills as personal aptitude relating to interpretation and translation of documents, particularly those in different languages. The impact of orientation on the skills subscale was also measured using an independent-samples *t* test. This analysis in Table 5.13 indicated that orientation had no significant effect on skills at time 1, ( $t(94)=0.742$ ,  $p=0.081$ ), with similar average means for those who attended the programme ( $M=39.81$ ,  $SD=8.76$ ) and those who did not ( $M=33.00$ ,  $SD=13.35$ ). At time 2, orientation again had no impact on the skills subscales ( $t(52)=2.825$ ,  $p=0.070$ ), with similar scores for those who attended ( $M=42.26$ ,  $SD=6.82$ ) and those who did not ( $M=35.85$ ,  $SD=9.54$ ).

Regards final ICC at time 1, an independent-samples *t* test in Table 5.13 found no statistical difference between those who did ( $M=179.57$ ,  $SD=38.05$ ) and did not ( $M=150.24$ ,  $SD=58.43$ ) attend orientation ( $t(94)=0.853$ ,  $p=0.101$ ). At time 2, attendance still had no effect on ICC ( $t(52)=1.782$ ,  $p=0.067$ ), with similar average means among those who attended ( $M=195.84$ ,  $SD=28.83$ ) and did not attend ( $M=180.14$ ,  $SD=32.18$ ).

Orientation programmes are not unique to language students. They are used at educational institutions across the world to ensure that students and newcomers are comfortable with their new context and culture. Attending orientation programme has a crucial role in ‘helping students make sense of the intercultural encounters, along with differences in cultural value orientations, socio-economics and politics that they were about to come into contact with’ (Medina-López-Portillo, 2004, p. 196). It is somewhat surprising then, given that orientation programmes are designed to ease individuals into a new culture or setting, that the findings suggest that the orientation programme do not impact international students’ ICC at this specific context. It might be inferred that the university’s orientation programme was poorly designed and executed or that, within the context of language learning and new cultures, such programmes are ineffective. It is therefore necessary to explore this finding in the second phase of the research.

In this respect, the works of Oberg (1960, p. 177), Ward, Bochner and Furnham, (2001, p. 20) and Shi and Wang (2014, p. 27) offer insights. They discuss how culture shock affects students' feelings, perceptions and identities when they are placed within a new context and cultural environment. Shi and Wang (2014, p. 27) state that a new country or language may not be the only source of shock for an individual; religion and unique cultural practices also contribute to culture shock. The survey did not specifically explore whether respondents encountered culture shock. However, the unique and conservative environment of the Kingdom (e.g. strict gender separation) may have contributed to culture shock. Adapting to these cultural idiosyncrasies is crucial for interpersonal communication and overall ICC (Shi and Wang, 2014, p. 27). With this in mind, the results may show that students experienced culture shock when they first arrived, and then their specific ideas and preconceived notions of Saudi Arabia were countered or changed at orientation.

Saldana (2015, p. 78) and Neuliep (2017, p. 245) build on Winkelman's (1994, p. 122) seminal culture shock model to show that cultural adjustment can be understood in stages, as discussed in the literature review. Briefly, during the honeymoon stage, international students have little formal contact with local institutions and positive attitudes towards the host country; during the crisis stage, they experience instability, anxiety, helplessness, confusion and inadequacy (Ward, Bochner and Furnham, 2001, p. 82).

The nature of the questionnaire and the focus on personality traits precluded clarification of the extent of culture shock. Nonetheless, it will be interesting to address these particular limitations during the second phase of the research, such as the extent to which students felt culture shock and how it impacted them. Participants also could be asked whether introversion was an integral part of the inquiry, given that this variable consistently did not predict the knowledge, awareness and skills subscales tested.



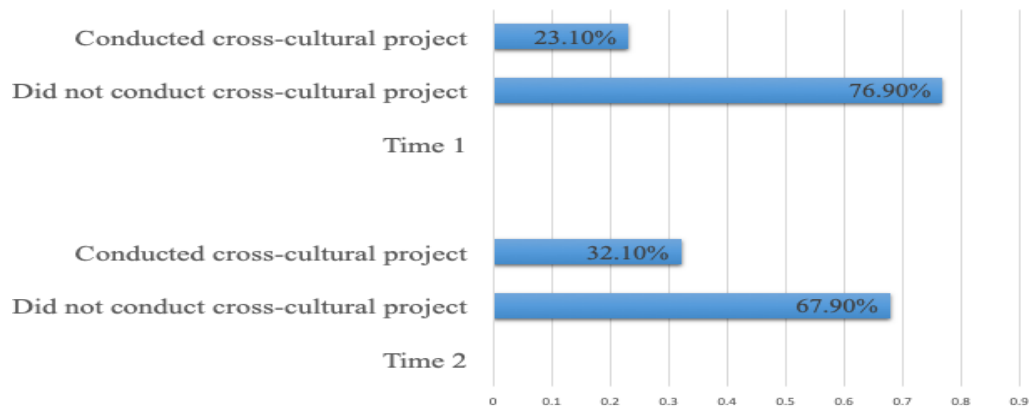
The initial analysis of the demographic information suggests that the split is balanced between those who attended orientation and those who did not. It would therefore be important to ask those who attended orientation if they felt the programme was effective or a hindrance to their language and, more important, their ICC development. As highlighted in the literature review, both Zhou, et al., (2008, p. 63) and Shupe, (2007, p. 764) noted the importance of providing international students with appropriate and considerable assistance to ensure a positive and seamless cultural transition. Failure to provide such assistance likely prolong students' culture shock (Shupe, 2007, p. 764) and influences the degree to which they adjust.

Given the extensive literature on the link between attending an orientation programme and ICC, it is surprising to see that attending such a programme did not enhance students' ICC. For this reason, the researcher chose to investigate the nature of the orientation programme, both from the perspectives of a university representative and participants themselves. Although these results will be described later in detail, it should be noted that the orientation programme was revealed to be unstructured and inadequately planned.

#### **5.3.10. Differences related to Cross-cultural Research Project between Time 1 and Time 2**

Regarding conducting a cross-cultural research project at time 1 and at time 2, results in Figure 5.4 show that 23.1% conducted a cross-cultural research project, and 76.9 % did not. Further investigation of the data revealed that 70% of those who rated their oral proficiency as limited did not conduct any cross-cultural research projects at time 1. This finding contrasts starkly with fluent Arabic speakers, of whom only 18% did not conduct a cross-cultural project.

Figure 5.4 Frequency statistics for cross-cultural project



A series of independent-samples *t* tests explored whether participants who has conducted the project reported different levels of ICC from those who had not. In these analyses, conducting a cross-cultural project was held as an independent variable with two levels (yes versus no), and the dependent variables were knowledge, attitude, awareness, skills and final ICC scores. Table 5.14 shows the results.

Table 5.14 Mean, standard deviation and independent-samples *t* test of cross-cultural project and ICC, time 1 and time 2

Cross-cultural project		Time 1		Time 2		Time 1		Time 2	
		M	SD	M	SD	<i>t</i> value	Sig.	<i>t</i> value	Sig.
Knowledge	Yes	34.82	11.24	41.47	10.48	1.17	.032	.726	.474
	No	31.31	12.50	39.27	9.79				
Attitude	Yes	42.13	11.28	47.17	8.36	.688	.193	-.672	.506
	No	39.75	15.01	48.97	10.44				
Awareness	Yes	54.05	15.12	63.52	14.56	.799	.458	1.059	.298
	No	53.61	19.18	59.02	14.17				
Skills	Yes	37.04	10.60	40.76	8.89	.397	.372	.995	.327
	No	35.89	12.32	38.16	8.83				
ICC	Yes	234.05	44.56	192.94	31.97	.431	.000	.803	.428
	No	103.70	54.11	185.44	31.15				

Note: T1 - time 1; T2 - time 2; ICC - intercultural communication competence

At time 1, the results in Table 5.14 indicated that there were non-significant differences between participants who did and did not conduct a cross-cultural project in intercultural attitude, awareness and skills. Table 5.14 revealed that, at time 2, those who completed a cross-cultural project revealed similar knowledge, attitude, awareness, skills and final ICC scores as those who completed the project.

At time 1, participants who conducted a cross-cultural project ( $M=34.82$ ,  $SD=11.24$ ) had significantly higher knowledge scores than participants who did not ( $M=31.31$ ,  $SD=12.50$ ) conduct a project ( $t(94)=1.17$ ,  $p=0.032$ ) as shown in Table 5.14. Moreover, those who completed the project ( $M=234.05$ ,  $SD=44.56$ ) had significantly higher final ICC scores at time 1 than participants who did not ( $M=103.70$ ,  $SD=54.11$ ) complete it ( $t(94)=.431$ ,  $p=0.000$ ).

Interestingly, the completion of a cross-cultural project affected only knowledge and final ICC scores and only at time 1. Such projects may help international students to become more knowledgeable about the host culture by building students' knowledge. Such projects also may not increase international students' intercultural attitude, awareness and skills because they do not require students to interact with members of the host culture. Extensive communication with the host culture is needed to build positive intercultural attitudes and increase intercultural awareness and skills. Intercultural knowledge can be obtained via the Internet or, as demonstrated in this study, by conducting a cross-cultural project. These explanations help explain why conducting a cross-cultural project affected only one of the four ICC abilities.

Intercultural knowledge is an important aspect of the final ICC score. Thus, the significantly higher final ICC scores among participants who completed a cross-cultural project may demonstrate their higher intercultural knowledge. Thus, it could be that the two groups' variances in knowledge scores explain their variance in final ICC scores. Said differently, the statistically significant group differences in intercultural knowledge could be the primary driver of significant group differences in final ICC scores.

Finally, when explaining why these differences were evident only at time 1, one can refer to the differences in the sample of participants at two assessment points. As previously mentioned, the sample at time 1 consisted of more students from countries that are culturally distant from Saudi Arabia than at time 2, which did not include students from culturally distant countries such as the United States and China. The lack of significant differences in intercultural knowledge between the two groups at time 2 could be because the sample included students who were already knowledgeable about Saudi culture. Their participation in a cross-cultural project thus did not increase their intercultural knowledge. As argued previously, it appears that differences in the two groups' intercultural knowledge at time 1 drove the differences in their final ICC scores. From this argument, it can be assumed that conducting a cross-cultural project did not affect students' intercultural knowledge at time 2, which led to non-significant group differences in final ICC scores.

#### **5.4. Analysis of Assessment of Intercultural Competence**

Apart from assessing personality traits along the Big Five scale, the study also used the Assessment of Intercultural Competence (AIC) with its four subscales (knowledge, attitude, awareness and skills) that measured participants' ICC. The AIC uses a 6-point Likert scale ranging from 'Extremely High', 'High', 'Neutral', 'Weak', 'Extremely Weak' to 'Not at All'. Each component was assessed through a number of statements. For example, items that assessed knowledge included statements such as 'I could contrast my own behaviours with those of my hosts in important areas (e.g. social interactions, basic routines, time orientation)' and 'I could describe interactional behaviours common among people in the host culture in social and professional areas'. The attitude subscale included statements such as while in the host country, I demonstrated willingness 'to adapt my behavior to communicate appropriately in the host culture (e.g., in non-verbal and other behavioral areas, as needed for different situations' and 'to suspend judgment and appreciate the complexities of communicating and interacting interculturally'. The

awareness component assessed through statements such as while in the host culture, I realized the importance of ‘how varied situations in the host culture required modifying my interactions with others’ and ‘dangers of generalizing individual behaviors as representative of the whole culture’. The skills subscale included statements such as ‘I demonstrated flexibility when interacting with persons from the host culture’, ‘I was able to contrast the host culture with my own’ and ‘I used strategies for learning the host language and about the host culture’. The following sections of the thesis provide descriptive statistics for the statements assessing each of the four ICC abilities. Importantly, descriptive statistics are provided only for the assessment at time 1. The rationale for this choice is that the researcher sought to analyse these statistics as a means of identifying questions to be used in the interview phase. As this analysis was performed to inform interviews, it was not necessary to conduct descriptive statistics for these statements at time 2.

#### **5.4.1. Knowledge Subscale**

Knowledge is the first component of the AIC and was assessed using 11 statements. The top responses were for the following statements: ‘I know the essential norms and taboos of the host culture (e.g. greetings, dress, behaviours etc.), with an average mean of 4.74; ‘I could describe interactional behaviours common among people in the host culture in social and professional areas (e.g. family roles, teamwork, problem-solving etc.)’, with an average mean of 4.11 and ‘I could cite a definition of culture and describe its components and complexities’, with an average mean of 4.02. See Table 5.15 in the Appendix for the full list of statements and results. The lowest mean responses were for ‘I could describe a model of cross-cultural adjustment stages’ (2.85), ‘I could discuss and contrast various behavioural patterns in my own culture with those in the host culture’ (2.85) and ‘I could cite important historical and socio-political factors that shape my own culture and the host culture’ (2.09). To confirm these results, the researcher studied the sample response rate on the knowledge subscale, as shown in the Figure 5.5.

Figure 5.5 Distribution of sample response rate on the knowledge subscale

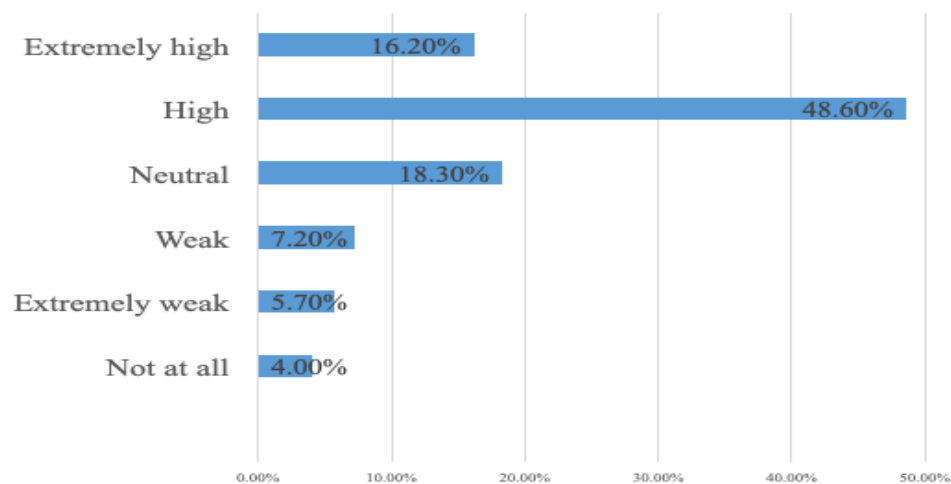


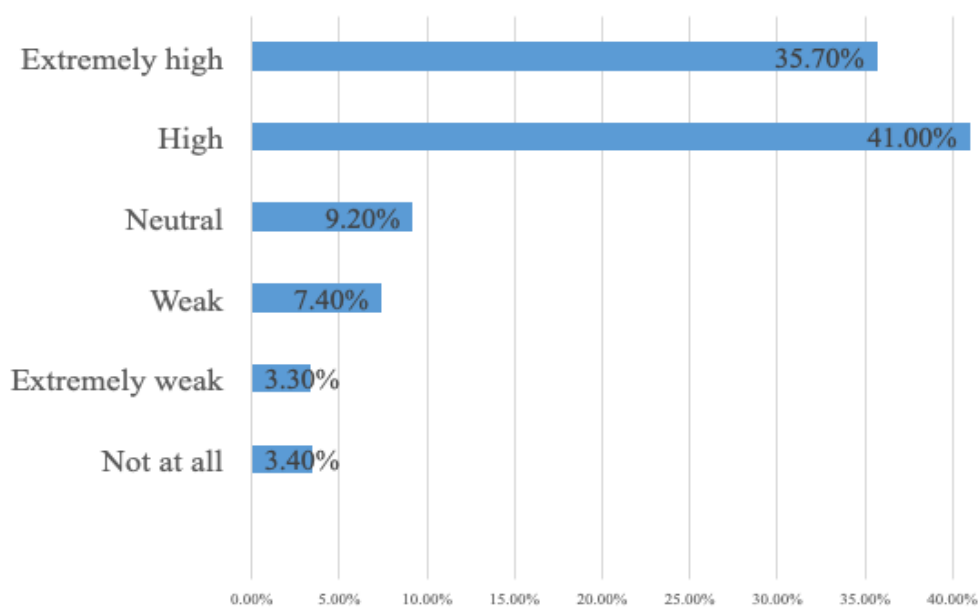
Figure 5.5 shows that 64.8% ( $n=677$ ) of the sample responded ‘Extremely High’ and ‘High’, which was greater than the total 16.9% ( $n=177$ ) who responded ‘Weak’, ‘Extremely Weak’ and ‘Not at all’, excluding the 18.3% ( $n=191$ ) who responded ‘Neutral’. These results indicate a contradiction, meaning that when participants were asked to rate their intercultural knowledge, most rated it high. However, when answering questions that indirectly sought to gauge their knowledge of the Saudi culture, the results suggested low scores in this area. This finding highlights an issue with self-ranking questions within questionnaires. The indirect questions provided a better indication of the respondents’ true intercultural knowledge and capacity.

#### 5.4.2. Attitude Subscale

Attitude is the second component of the AIC that was assessed by 13 statements. Table 5.16 in the Appendix lists responses in the order of agreement. The statements asking whether the participant demonstrated willingness to ‘interact in alternative ways, even when quite different from those to which I was accustomed and preferred’, ‘deal with the ethical implications of my choices (in terms of decisions, consequences, results etc.) and ‘try to communicate in the host language and behave in appropriate ways, as judged by my hosts’ were the most highly rated statements, with average means of 4.69, 4.69 and 4.65, respectively.

While in the host country, many participants did not demonstrate willingness to ‘show interest in new cultural aspects (e.g. to understand the values, history, traditions etc.)’, ‘deal with different ways of perceiving, expressing, interacting and behaving’ and ‘take on various roles appropriate to different situations (e.g. in the family, as a volunteer etc.)’. These statements earned lower mean responses, with average means of 3.23, 3.1 and 1.90, respectively. Figure 5.6 shows the sample response rates, indicating that the proportion who responded ‘Extremely High’ and ‘High’ (76.7%;  $n=947$ ) was greater than the proportion who responded ‘Weak’, ‘Extremely Weak’ and ‘Not at all’ (14.1%;  $n=174$ ), excluding ‘Neutral’ (9.2%) responses. This finding suggests that most participants were willing to learn from their hosts, their language, and their culture.

Figure 5.6 Distribution of sample response rate on the attitude subscale



Attitude is an important element of intercultural communication and refers to participants’ attitudes towards the host culture and understanding the existence of differences in the behaviors, values, attitudes, and styles of host members. The attitude component of the survey used a range of self-assessed statements that examined the degree to which respondents felt they could learn from their hosts, show interests in cultural traditions and actively understand and accept

behaviours and values in a new cultural setting. Figure 5.6 shows that most (76.7%) reported a positive attitude toward cultural differences.

The qualitative data will be investigated further to gain insight into the contributing factors and the extent to which intercultural attitudes are internally driven, such as by the respondent's personality traits, or shaped by external factors based on experience. This investigation is further influenced by findings presented by Kormos, Csizer and Iwaniec (2014, p. 152), who report that positive experiences with host nationals or institutions are likely to have a (positive) knock-on effect on ICC. To explore the actual nature of the ability to positively interact with hosts, this research also investigated how students dealt with differences in behaviours, values, attitudes, and styles of locals. This investigation helped clarify the driving force behind intercultural attitudes, such as engagement with the new environment, as reported by van der Zee and van Oudenhoven (2013, p. 928), or personality traits.

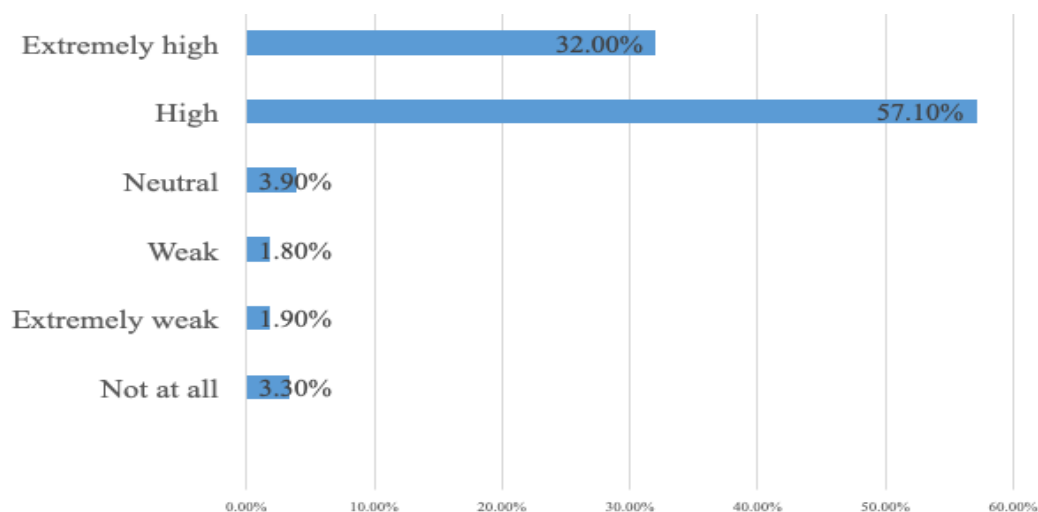
#### **5.4.3. Awareness Subscale**

Awareness is the third component of the AIC, with 18 statements. Table 5.17 in the Appendix indicate that the most highly rated statements were those assessing whether the participants realised the importance of 'dangers of generalising individual behaviours as representative of the whole culture', 'how I perceived myself as communicator, facilitator, mediator, in an intercultural situation', and 'factors that helped or hindered my intercultural development and ways to overcome them', with average means of 4.71, 4.69 and 4.65, respectively. Statements regarding the awareness of 'personal values that affected their approach to ethical dilemmas and their resolution', 'responses by host culture members to their own social identity (e.g. race, class, gender, age etc.)' and 'differences and similarities across their own and the host language and culture' earned lower mean responses of 3.66, 3.86 and 3.21, respectively. Specifically, awareness of personal approaches to ethical dilemmas, host culture identity and comparisons between host



and home country were the least developed among international students. Figure 5.7 shows the sample response rate on the whole awareness subscale.

Figure 5.7 Distribution of the sample response rate on the awareness subscale



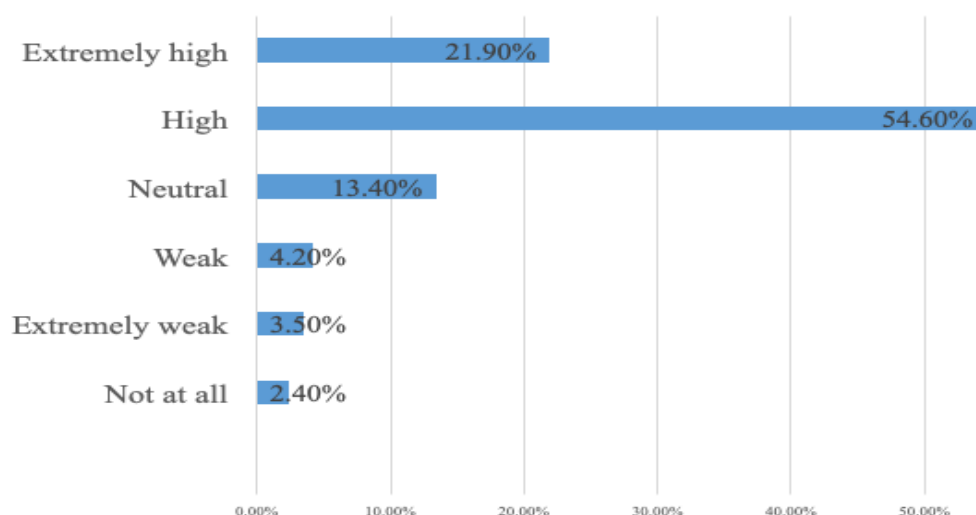
As shown in Figure 5.7, the proportion of the sample that responded with ‘Extremely High’ and ‘High’ was 89.1% ( $n=1523$ ), which was greater than the proportion who responded ‘Weak’, ‘Extremely Weak’ and ‘Not at all’ (7%;  $n=120$ ), excluding ‘Neutral’ responses (3.9%;  $n=67$ ). The primary finding, therefore, was that 89.1% of the sample was aware of sociocultural norms across cultures. It is difficult to understand if the awareness capability results from international studying experiences or personality traits of the participants.

#### 5.4.4. Skills Subscale

The intercultural skills subscale measured 11 statements. Table 5.18 in the Appendix displays the frequencies, percentages, average means and SD for all skills statements. The most highly rated statements were ‘I adjusted my behaviour, dress etc. as appropriate to avoid offending my hosts’, ‘I helped to resolve cross-cultural conflicts and misunderstandings when they arose’ and ‘I demonstrated a capacity to interact appropriately in a variety of different situations in the host culture’, with average means of 4.73, 4.58, and 4.02, respectively. This finding indicates that participants were skilled in adjusting their behaviour and dress to avoid offending hosts, in

resolving cross-cultural conflicts and misunderstandings and in interacting appropriately in a variety of different social situations in the host culture. Lowest average means were observed for ‘I used models, strategies and techniques that aided my learning’, ‘I monitored my behaviour and its impact on my learning, my growth, and especially on my own hosts’, and ‘I used appropriate strategies for adapting to the host culture and reducing stress’ (3.08, 2.98 and 2.83) respectively, as shown in Table 5.18. This finding suggests that many participants weakly used models, strategies and techniques that aided their learning of the host language and culture, that they did not monitor their behaviour or its impact on their learning and that they only weakly used appropriate strategies for adapting to the host culture and reducing stress. Figure 5.8 provides insight into the overall response distribution across all items that represent intercultural skills.

Figure 5.8 Distribution of sample response rate on the skills subscale



As shown in Figure 5.8, the percentage of participants who responded with ‘Extremely High’ and ‘High’ was 76.5% ( $n=800$ ), which was greater than those who responded ‘Weak’, ‘Extremely Weak’ and ‘Not at all’ (10.1%;  $n=105$ ), excluding ‘Neutral’ responses (13.4%;  $n=140$ ) participants. Thus, the results showed that 76.5% of participants reported sufficient understanding of intercultural skills in the Saudi context.

## 5.5. Differences in Intercultural Communication Competence Subscales at Times 1 and 2

This section explores differences in ICC at times 1 and 2. A series of paired sample *t* tests were conducted to measure differences between participants' scores at both times and to measure if participants' knowledge, attitude, awareness, skills, and final ICC scores improved over time; that is, whether their scores at time 2 were significantly better than their scores at time 1. Table 5.19 summarises the results.

Concerning knowledge scores, the results in Table 5.19 revealed that participants' intercultural knowledge was higher at time 2 ( $M=39.98$ ,  $SD=9.97$ ), compared with time 1 ( $M=32.41$ ,  $SD=12.52$ ). A paired sample *t* test in Table 5.19 showed that this difference was significant ( $t=3.26$ ,  $p=0.002$ ). Results also showed that participants' attitudes were more positive at time 2 ( $M=48.21$ ,  $SD=9.77$ ) than at time 1 ( $M=38.51$ ,  $SD=12.52$ ). This difference was significant ( $t=5.62$ ,  $p=0.000$ ), as shown in Table 5.19.

Table 5.19 Paired samples *t* test

		Time	Mean	SD	<i>t</i> value	Sig.
Pair 1	Knowledge	T 1	32.41	12.52	3.26	.002
		T 2	39.98	9.97		
Pair 2	Attitude	T 1	38.51	14.53	5.62	.000
		T 2	48.21	9.77		
Pair 3	Awareness	T 1	52.62	18.56	3.64	.001
		T 2	60.19	14.52		
Pair 4	Skills	T 1	35.18	12.09	2.96	.005
		T 2	39.00	8.85		
Pair 5	Intercultural communication competence	T 1	157.24	52.77	4.49	.000
		T 2	186.40	31.52		

Note: T1 - time 1; T2 - time 2

Furthermore, a paired sample *t* test in Table 5.19 showed significant differences in participants' intercultural awareness ( $t=3.64$ ,  $p=0.001$ ), which was significantly higher at time 2 ( $M=60.19$ ,  $SD=14.52$ ) than at time 1 ( $M=52.62$ ,  $SD=18.56$ ). In terms of the intercultural skills subscale, a

paired sample  $t$  test in Table 5.19 showed significant impact ( $t=2.96$ ,  $p=0.005$ ), suggesting that participants' intercultural skills were significantly higher at time 2 ( $M=39.00$ ,  $SD=8.85$ ) than at time 1 ( $M=35.18$ ,  $SD=12.09$ ). Finally, participants reported significantly higher final ICC scores at time 2 ( $M=186.40$ ,  $SD=31.52$ ), compared with time 1 ( $M=157.24$ ,  $SD=52.77$ ;  $t=4.49$ ,  $p=0.000$ ). Taken together, these findings suggest that international students show increased ICC abilities.

## **5.6. Analysis of IPIP-NEO-120 Components**

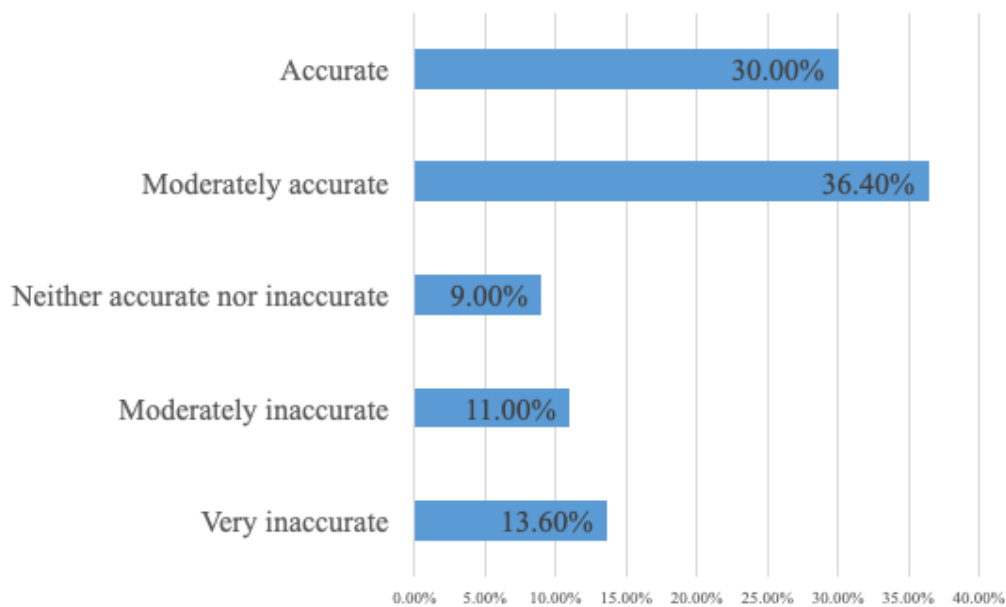
The IPIP-NEO-120 was used to assess participants' personality traits consisting of five components: neuroticism, extroversion, openness to experience, agreeableness and conscientiousness. The IPIP-NEO-120 uses a 5-point Likert scale with responses ranging from 'Very Accurate' to 'Very Inaccurate' for self-assessment statements. This section presents descriptive statistics for statements assessing each of the five personality traits. As was the case when describing descriptive statistics for statements that assessed ICC abilities, these statistics are presented only for time 1, because descriptive statistics were used to inform the construction of subsequent interview questions. This section also explores relationships between personality traits and ICC subscales at both times 1 and 2 using the Pearson's correlation coefficient tests.

### **5.6.1. Personality Trait of Neuroticism**

Neuroticism is a tendency to experience negative emotions and is the first component of the IPIP-NEO-120, measured by 24 statements. Table 5.20 in the Appendix shows that highly rated statements included 'I get angry easily', 'I find it difficult to approach others' and 'I am afraid to draw attention to myself' were rated most highly, with average means of 4.60, 4.37, and 4.34, respectively. A large portion of study participants reported getting angry easily, finding it challenging to approach other people and being afraid to draw attention to themselves. Low scores were observed for 'I am not easily annoyed', 'I am able to control my cravings' and 'I feel unable to deal with things' (2.2, 2.12, and 1.75, respectively). This finding suggests that a minority of

participants were likely to get annoyed easily, were unable to control their cravings, and felt unable to deal with things. As shown in Figure 5.9, responses of ‘Very Accurate’ and ‘Moderately Accurate’ were made by 66.4% ( $n=1514$ ) participants, which was greater than the proportion of ‘Moderately Inaccurate’ and ‘Very Inaccurate’ responses (24.6%;  $n=560$ ), excluding ‘Neither Accurate nor Inaccurate’ responses (9%;  $n=206$ ).

Figure 5.9 Distribution of the sample response on the neuroticism subscale



The results in Figure 5.9 showed that 66.4% of respondents had high neuroticism, which means that they exhibited a high tendency to feel anger, anxiety and depression. The relationship between neuroticism and AIC components at time 1 was assessed using a series of Pearson’s correlation analyses. The results, which are summarised in Table 5.21, showed a negative relationship between neuroticism and knowledge ( $r=-0.340$ ), attitude ( $r=-0.201$ ), awareness ( $r=-0.267$ ) and final ICC score ( $r=-.303$ ), with all correlations being significant at  $p<.05$ . There was a non-significant relationship between neuroticism and skills ( $r=-0.066$ ,  $p>0.05$ ).

Table 5.21 Correlation between neuroticism and ICC subscales, time 1 and time 2

	Neuroticism	Knowledge	Attitude	Awareness	Skills	ICC
Time 1	Pearson's Correlation	-.340	-.201	-.267	-.066	-.103
	Sig. (2-tailed)	.001	.002	.010	.525	.031
Time 2	Pearson's Correlation	-.531	-.382	-.262	-.148	-.450
	Sig. (2-tailed)	.000	.005	.059	.289	.001

Note: ICC - intercultural communication competence

Neurotic individuals, because of their tendency to experience negative emotions, may find it challenging to adapt to a new cultural context, which limits their social interactions and their ability to improve their intercultural knowledge, attitude and intercultural awareness. This rationale explains the significant negative correlation between neuroticism and these ICC abilities. Based on this rationale, however, it is unclear why there was a non-significant correlation between neuroticism and skills. One could argue that the development of intercultural skills did not depend on students' ability to manage their emotions. To further clarify, this result was explored in subsequent interviews.

At time 2, the results of Pearson's correlation analyses in Table 5.21 indicated a negative relationship between neuroticism and knowledge ( $r=-0.531$ ), attitudes ( $r=-0.382$ ), awareness ( $r=-0.262$ ) and final ICC score ( $r=-.450$ ). All these correlations were significant at  $p<0.05$ . There was a non-significant relationship between neuroticism and skills ( $r=-.148$ ,  $p>0.05$ ). The findings obtained at time 2 were identical to those obtained at time 1, which shows that the discovered relationships between neuroticism and ICC abilities remained consistent over time.

Four (4.2%) participants scored high on the neuroticism subscale. All were men from four different countries: France, India, Pakistan and the United States. One was 20 years old or younger, one was 21-23 years old and two were 24-26 years old. These results were obtained via frequency statistics analyses. One had been in Saudi Arabia for less than a year, and three had been there between one and three years. One lived with his family, and three lived with other

international students. All four participants spoke Arabic fluently on all levels. Two had an advisor, one volunteered, three attended an orientation programme and one conducted a cross-cultural project. No inferential analysis was conducted for these statistics, but it is interesting to explain which participants scored high on neuroticism. Table 5.22 in the appendix shows the demographic and contextual data of neurotic participants.

Table 5.23 below shows that their scores on the knowledge subscale were 16, 18, 37 and 43, respectively. On average, their knowledge score was 28.50 (SD=13.53) out of a maximum score of 55, indicating moderate knowledge of intercultural competences. The same four participants scored 11, 12, 41 and 42 on the attitude subscale, respectively (M=26.50, SD=17.33). Scores on this subscale ranged from 0 to 65, indicating negative to moderately positive attitudes towards being interculturally competent. On the awareness subscale, these participants scored 11, 11, 45 and 49, respectively. Their mean response was 29.00 (SD=20.85) out of 95, denoting low awareness of intercultural competences. Last, the four participants' scores on the skills subscale were 14, 14, 33 and 41 (M=25.50, SD=13.68) out of 55. Table (5.23) displays neurotic participants' scores on ICC abilities.

	<b>Knowledge</b>	<b>Attitude</b>	<b>Awareness</b>	<b>Skills</b>
N1	16	11	11	14
N2	37	41	49	41
N3	18	12	11	14
N4	43	42	45	33

Individuals who score high on neuroticism tend to experience negative emotions, such as anxiety, worry, anger and frustration (McCrae and Costa, 2008, p. 32). They find it challenging to manage psychological stress and to bounce back after difficulties (Ploubidis and Frangou, 2011, p. 3). Due to these characteristics, neurotic individuals are less likely to adapt to a new cultural setting (Ward and Fisher, 2008, p. 15). Studies have shown that neuroticism is inversely related to intercultural effectiveness (van der Zee and van Oudenhoven, 2013, p. 936; Wilson, Ward and Fischer, 2013,

p. 909). Individuals who score high on neuroticism often find it difficult to cope with the stress of intercultural adaptation (Lee and Ciftci, 2015, p. 101) and to orient themselves towards a new culture (Swangler and La Rae, 2015, p. 535).

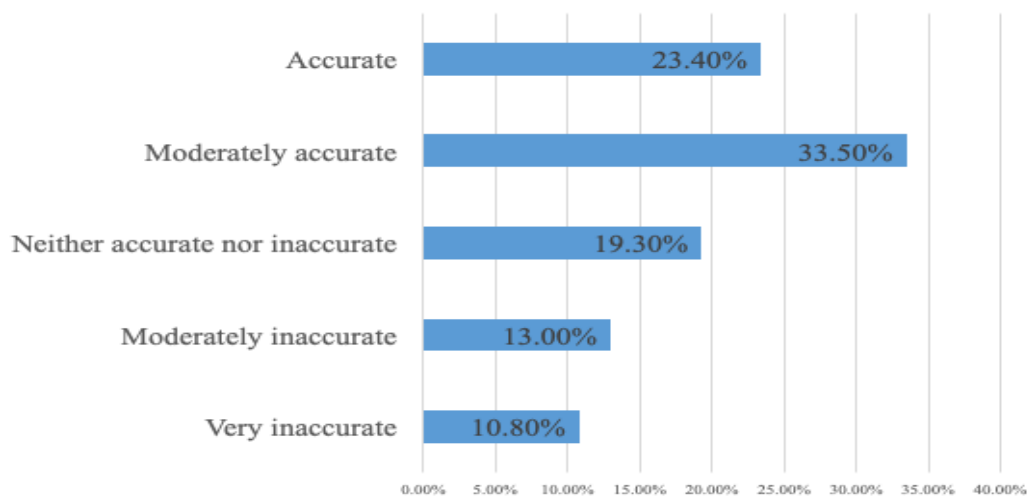
The present research confirms that students who scored high on neuroticism had low ICC. Based on definitions of intercultural knowledge, attitude, awareness and skills, the highly neurotic students did not display knowledgeability of the host culture and its norms, behaviours and historical and political contexts. They were moderately willing to interact with locals and learn from their hosts and were moderately aware of their and others' role in building their intercultural competencies.

#### **5.6.2. Personality Trait of Extroversion**

Extroversion is characterised by an interest in other people and social settings and was the second component of the IPIP-NEO-120, with 24 statements. Table 5.24 in the Appendix shows the highest average means for 'I take charge', 'I love excitement', and 'I like to take it easy' (4.83, 4.77 and 4.68, respectively). The scores suggest that most participants liked taking charge, getting excited, and taking it easy. Low scores were observed for 'I make friends easily', 'I enjoy being reckless', and 'I talk to a lot of different people on the parties' (2.32, 2.24 and 2.18) respectively. This finding indicates that few participants made friends easily, enjoyed being reckless, and talked to a lot of different people at parties. Figure 5.10 shows the sample response rate on the extroversion subscale.



Figure 5.10 Distribution of sample response rate on the extroversion subscale



As shown in Figure 5.10, 56.9% ( $n=1296$ ) responded with ‘Very Accurate’ and ‘Moderately Accurate’, which was greater than those that responded ‘Moderately Inaccurate’ and ‘Very Inaccurate’ (23.8%;  $n=544$ ), excluding ‘Neither Accurate nor Inaccurate’ (19.3%;  $n=440$ ).

A series of Pearson’s correlation analyses were conducted to explore the relationship between extroversion and ICC subscales, and Table 5.25 summarises the results. At time 1, extroversion revealed a significant positive correlation with knowledge ( $r=0.318$ ), attitudes ( $r=0.216$ ), awareness ( $r=0.237$ ), skills ( $r=0.286$ ) and final ICC score ( $r=0.273$ ), as all  $p$  values were ( $<0.05$ ). As shown in Table 5.23, comparable results were obtained at time 2, when higher extroversion was associated with higher knowledge ( $r=0.549$ ), attitudes ( $r=0.302$ ), awareness ( $r=0.418$ ), skills ( $r=0.498$ ) and final ICC scores ( $r=0.601$ ; all  $p<0.05$ ).

Table 5.25 Correlation between extroversion and ICC subscales, time 1 and time 2

	Extroversion	Knowledge	Attitude	Awareness	Skills	ICC
Time 1	Pearson’s Correlation	.318	.216	.237	.286	.273
	Sig. (2-tailed)	.002	.037	.023	.005	.009
Time 2	Pearson’s Correlation	.549	.302	.418	.498	.601
	Sig. (2-tailed)	.000	.028	.002	.000	.000

Note: ICC - intercultural communication competence

These results suggest that international students who are social, outgoing and enjoy communicating with other people are highly likely to have well-developed ICC abilities. This finding was obtained at both assessment points, showing the relationship between extroversion and ICC dimensions over time. As a means of exploring this result further, participants in interviews will be asked how much extroversion can influence their ability to communicate effectively with people from other cultural backgrounds. In particular, respondents will be asked about their own approach to communication and how they feel their personality traits influence this approach.

Table 5.26 in the appendix also shows that twenty-one (22.1%) participants scored high on extroversion, comprising 18 (85.71%) men and three (14.29%) women. Four (19.05%) were 20 years old or younger, 11 (52.38%) were 21-23 years old, two (9.52%) were 24-26 years old and four (19.05%) were older than 26. These participants came from various countries. Three (14.29%) were born in Afghanistan, one (4.76%) in Chechnya, one (4.76%) in China, two (9.52%) in India, two (9.52%) in Kenya, three (14.29%) in Niger, five (23.81%) in Nigeria, three (14.29%) in Pakistan and one (4.76%) in Uzbekistan.

Table 5.26 in the appendix also shows that eleven (52.38%) participants stayed in Saudi Arabia for 1-3 years, four (19.05%) for less than a year and six (28.57%) for more than four years. Only two participants (9.52%) lived with their family, another two (9.52%) lived with Saudi students and 17 (80.96%) lived with other international students. Regarding oral proficiency, five (23.81%) participants had limited capacity, three (14.29%) were able to speak on particular topics and four (19.05%) were able to speak with sufficient structural accuracy and vocabulary. Nonetheless, most (9; 42.85%) spoke Arabic fluently and accurately on all levels. Last, out of these 21 participants, nine (42.85%) had an advisor, eleven (52.38%) volunteered, seven (33.33%) participated in an orientation programme and four (19.05%) conducted a cross-cultural project.

Table 5.26 in the appendix summarises the demographic and contextual information of extroverted participants.

Table 5.27 displays extroverted participants' scores on ICC abilities. It shows that on the knowledge subscale of the ICC measure, participants who scored high on extroversion had a mean score of 45.33 (SD=15.20). Thus, these participants' knowledge of intercultural competencies was very high. These participants had highly positive attitudes towards the target culture, as evident in the mean score of 40.90 (SD=11.72) on the attitudes subscale. Their awareness of intercultural competences, however, was low to moderate (M=38.62, SD=9.27). Finally, their average score on the skills subscale (M=40.76, SD=8.22) implies that they had highly developed intercultural competence skills.

Table 5.27 extroverted participants' scores on ICC abilities

	Knowledge	Attitude	Awareness	Skills
E1	42	25	38	35
E2	31	26	24	32
E3	73	65	29	55
E4	26	37	56	38
E5	77	55	45	49
E6	39	41	48	46
E7	38	45	46	43
E8	62	50	35	36
E9	53	43	35	49
E10	32	31	26	29
E11	36	32	30	35
E12	70	57	50	53
E13	30	34	29	39
E14	25	22	39	33
E15	48	38	37	41
E16	51	57	40	45
E17	54	35	30	55
E18	38	33	34	29
E19	42	35	39	32
E20	35	49	56	38
E21	50	49	45	44

According to the Big Five model of personality, individuals who score high on extroversion tend to be sociable, outgoing and assertive (McCrae and Costa, 2008, p. 33). They feel comfortable around others and tend to welcome all kinds of social situations (Cobb-Clark and Shurer, 2012, p. 12). Accordingly, research finds that when extroverted students move to a new cultural context, they quickly develop cross-cultural friendships (Poyrazli, Thukral and Duru, 2010, p. 27) and experience limited intercultural stress (Ramirez, 2016, p. 91). In comparison with their introverted peers, they are more likely to orient themselves towards the new culture and to welcome cultural adjustment (van der Zee and van Oudenhoven, 2013, p. 931).

The findings confirm the results of past research. Highly extroverted students were knowledgeable about the host culture and about the general effects of moving to a new culture. They had positive attitudes towards intercultural communication and skills to communicate with locals and resolve cross-cultural conflict. However, these students had low to moderate awareness of the cultural differences between their and host country, of how the members of the host culture view them and of how their values affect their cultural competence. This finding suggests that although extroverts possess intercultural knowledge, positive attitudes towards a new culture and intercultural skills, they do not necessarily realise the importance of intercultural competences.

These conclusions apply only to the most extroverted students in the sample, however. As discussed previously, results of correlation analyses suggested that extroversion was positively associated with all ICC abilities in the whole sample of participants. Thus, regardless of whether students are categorised as very extroverted, extroversion helps international students to develop their intercultural knowledge, attitudes, awareness and skills.

### **5.6.3. Personality Trait of Openness**

Openness, defined as a general appreciation of art, experience, imagination and curiosity, is the third component of IPIP-NEO-120 that was assessed by 24 statements. Table 5.28. in the Appendix indicates highest scores for statements ‘I feel others’ emotions’, ‘I experience my

emotions intensely’ and ‘I believe that we should be tough on crime’ (average means of 4.68, 4.64 and 4.58, respectively). This finding implies that a large portion of participants felt others’ emotions, experienced their emotions intensely and believed that they should be tough on crime. The statements ‘I dislike changes’, ‘I do not enjoy going to art museums’ and ‘I tend to vote for conservative political candidates’ received low mean scores of 2.31, 2.23 and 2.22, respectively, as seen in Table 5.24 in the Appendix. Participants disagreed with the idea that they dislike changes, do not enjoy going to art museums and tend to vote for conservative political candidates. To confirm these results, Figure 5.11 shows the sample response rate on the openness subscale.

Figure 5.11 Distribution of sample response rate on the openness subscale

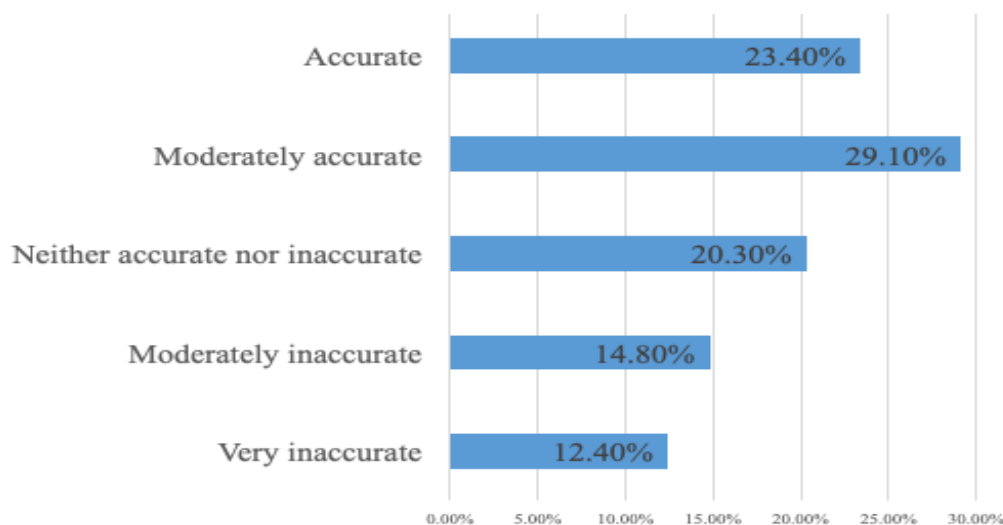


Figure 5.11 shows that the proportion of the sample that responded with ‘Very Accurate’ and ‘Moderately Accurate’ was 52.5% ( $n=1197$ ), which is greater than the proportion of ‘Moderately Inaccurate’ and ‘Very Inaccurate’ responses (27.2%;  $n=620$ ) if excluding ‘Neither Accurate nor Inaccurate’ responses (20.3%;  $n=463$ ).

To explore the relationship between the ICC subscales and the personality trait of openness to experience, a series of Pearson’s correlation analyses were conducted. As shown in Table 5.29, the results revealed that at time 1, openness to experience was positively associated with intercultural knowledge ( $r=0.330$ ), attitudes ( $r=0.272$ ), awareness ( $r=0.316$ ), skills ( $r=0.263$ ) and final ICC score ( $r=.319$ ). All correlations were significant (all  $p<0.05$ ). At time 2, openness to

experience again showed a significant positive relationship with knowledge ( $r=0.481$ ) attitudes ( $r=0.447$ ), awareness ( $r=0.581$ ), skills ( $r=0.412$ ) and final ICC score ( $r=.675$ ) (all  $p<0.05$ ). Thus, the results show that being open to experience helps international students to develop better ICC abilities, which was expected. Importantly, the association between openness to experience and ICC abilities exists regardless of when participants were assessed, which demonstrates that this association can be found over time.

Table 5.29 Correlations between openness and ICC subscales, time 1 and time 2

	Openness	Knowledge	Attitude	Awareness	Skills	ICC
Time1	Pearson's Correlation	.330	.272	.316	.263	.319
	Sig. (2-tailed)	.001	.008	.002	.010	.002
Time 2	Pearson's Correlation	.481	.447	.581	.412	.675
	Sig. (2-tailed)	.000	.001	.000	.002	.000

Note: ICC - intercultural communication competence

Table 5.30 in the appendix summarises the demographic and contextual information of open participants. It shows that of the 22 (23.2%) of participants who scored high on openness to experience, 16 (72.73%) were men and six (27.27%) were women. Six (27.27%) were 20 years old or younger, seven (31.82%) were 21-23 years old, five (22.73%) were 24-26 years old and four (18.18%) were older than 26. Three (13.63%) participants came from Afghanistan, one (4.55%) from Chechnya, one (4.55%) from China, one (4.55%) from France, two (9.09%) from India, three (13.63%) from Kenya, four (18.18%) from Pakistan, three (13.64%) from Niger and four (18.18%) from Nigeria.

Table 5.31 shows open participants' scores on ICC abilities. Participants who scored high on openness to experience had high scores on all subscales of the ICC measure. They showed high intercultural knowledge ( $M=38.45$ ,  $SD=8.53$ ). On average, these participants had a mean score of 45.73 ( $SD=9.72$ ) on the attitude subscale, indicating positive attitudes towards developing ICC.

The mean score on the awareness subscale ( $M=60.05$ ,  $SD=12.96$ ) indicated that these participants were highly aware of the importance of ‘their choices and their consequences (which made them either more, or less, acceptable to hosts)’. Finally, these participants had highly developed intercultural skills ( $M=39.91$ ,  $SD=9.24$ ) on the skills subscale.

Table 5.31 open participants’ scores on ICC abilities

	Knowledge	Attitude	Awareness	Skills
O1	34	41	56	32
O2	23	31	32	22
O3	27	38	54	27
O4	27	38	54	27
O5	47	50	58	51
O6	49	57	59	50
O7	34	33	58	39
O8	30	47	67	40
O9	30	45	53	26
O10	51	59	83	53
O11	40	38	49	44
O12	42	45	47	42
O13	36	49	67	40
O14	40	54	68	46
O15	47	57	78	49
O16	47	57	78	49
O17	49	57	56	47
O18	49	57	73	50
O19	40	51	59	42
O20	41	29	38	35
O21	30	39	77	33
O22	33	34	57	34

According to the Big Five model of personality, individuals who are open to experience tend to appreciate novelty, engagement in different activities, adventure and unusual ideas (McCrae and Costa, 2008, p. 31). They are curious and tend to welcome a variety of experiences (Silvia, et al., 2009, p. 1089). They are willing to approach novel experiences, have open and unprejudiced attitudes toward cultural differences (van der Zee and van Oudenhoven, 2013, p. 934) and tend to

enjoy experiencing new cultures (Swangler and Jome, 2015, p. 530). For these reasons, past research finds that openness to experience, as a trait, is positively associated with students' cross-cultural adjustment (Migliore, 2011, p. 51). This research obtained comparable results. Students who scored high on openness also scored high on all four ICC ability subscales. Students displayed sufficient knowledge of the Saudi culture and its norms and behaviours and were willing to communicate and interact interculturally. They also realised the importance of various cultural differences and had highly developed intercultural skills, all of which denotes high ICC. This relationship between openness to experience and ICC was evident in the whole sample and not only among the most open participants in the sample.

#### **5.6.4. Personality Trait of Agreeableness**

Agreeableness, which characterises individuals who are kind, warm and cooperative, is the third component of IPIP-NEO-120, which was assessed by 24 statements. The results in Table 5.32 in the Appendix indicate that the statements 'I am concerned about others', 'I feel sympathy for those who are worse off than myself' and 'I trust others' had the highest means of 4.86, 4.83 and 4.71, respectively. This finding suggests that a large portion of participants tended to be concerned about others, feel sympathy for those who are worse off and trust other people. The statements 'I try not to think about the needy', 'I insult people' and 'I use others for my own ends' had the lowest means of 1.81, 1.71 and 1.67, respectively. This finding validates the results showing that participants were sympathetic, considerate and empathetic. To confirm these results, Figure 5.12 shows the sample response rate on the agreeableness subscale.



Figure 5.12 Distribution of sample response rate on the agreeableness subscale

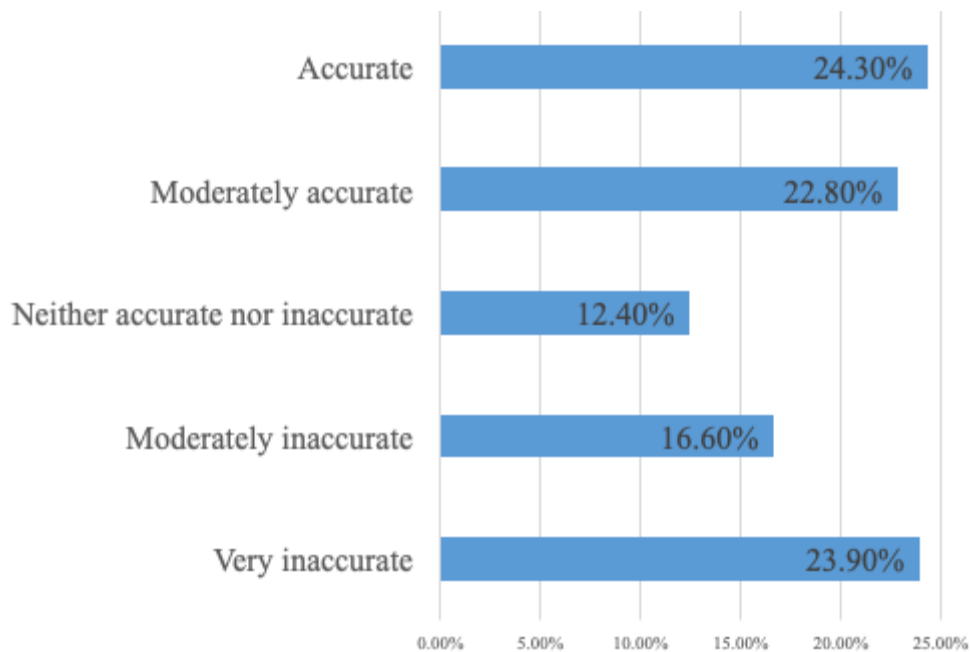


Figure 5.12 reveals that the proportion of the sample that responded with ‘Very Accurate’ and ‘Moderately Accurate’ was 47.1% ( $n=1074$ ), which is close to the proportion of ‘Moderately Inaccurate’ and ‘Very Inaccurate’ responses (40.5%;  $n=922$ ) if excluding ‘Neither Accurate nor Inaccurate’ (12.4%;  $n=284$ ) responses. The results also indicate that 47.1% of respondents thought of themselves as agreeable individuals, which means they tend to accommodate different social situations and establish rapport with others (Hogan, 2005, p. 333).

Table 5.33 presents the results of Pearson’s correlation analyses and show that at time 1, there was a positive relationship between agreeableness and knowledge ( $r=0.261$ ), attitude ( $r=0.341$ ), awareness ( $r=0.379$ ), skills ( $r=0.243$ ) and final ICC score ( $r=0.605$ ), with all these relationships being significant (all  $p<0.05$ ). This finding suggests that being friendly and compassionate aids students’ ICC development. The findings in Table 5.33 showed that, at time 2, there was a significant positive relationship between agreeableness and knowledge ( $r=0.374$ ), attitude ( $r=0.280$ ) and final ICC score ( $r=0.360$ ) (all  $p<0.05$ ). On the other hand, there was no relationship between agreeableness and awareness ( $r=0.239$ ) and skills ( $r=0.156$ ) (both  $p>0.05$ ). This finding

shows that, as international students stay longer in Saudi Arabia, their agreeableness becomes less relevant for their intercultural awareness and skills.

Table 5.33 Correlations between agreeableness and ICC subscales, time 1 and time 2

	Agreeableness	Knowledge	Attitude	Awareness	Skills	ICC
Time1	Pearson's Correlation	.261	.341	.379	.243	.605
	Sig. (2-tailed)	.003	.000	.001	.041	.039
Time 2	Pearson's Correlation	.374	.280	.239	.156	.360
	Sig. (2-tailed)	.006	.042	.085	.264	.008

Note: ICC - intercultural communication competence

Table 5.34 in the appendix shows the demographic and contextual information of participants with high scores on agreeableness. Of the 14 (14.7%) participants who scored high on the agreeableness subscale, 11(78.57%) were men and three (21.43%) were women. Only two (14.29%) were younger than 20, five (35.71%) were 21-23 years old and seven (50%) were 24-26 years old. One (7.14%) participant came from Afghanistan, one (7.14%) from France, one (7.14%) from India, three (21.43%) from Pakistan, two (14.29%) from Niger, four (28.57%) from Nigeria and two (14.29%) came from Uzbekistan.

As shown in table 5.34 in the appendix, out of these 14 participants, six (42.86%) stayed in Saudi Arabia for less than a year and seven (50%) stayed for in-between one and three years. Only one (7.14%) participant stayed in the country for more than four years. The majority of them, that is, nine (64.29%) lived with other international students. In contrast, four (28.57%) participants lived with their family, and one (7.14%) lived with Saudi students. When it comes to their oral proficiency, four (28.57%) participants could communicate with limited capacity, another four (28.57%) could communicate only on particular topics, four (28.57%) were able to speak with sufficient structural accuracy and vocabulary and two (14.29%) spoke Arabic fluently and accurately on all levels. Frequency statistics also revealed that five (35.71%) of these 14

participants had an advisor, nine (64.29%) volunteered, six (42.86%) underwent orientation and four (28.57%) completed a cross-cultural project.

Table 5.35 shows agreeable participants' scores on ICC abilities. Highly agreeable participants scored on the four ICC abilities subscales as follows. On the knowledge subscale, their mean score was 36.55 (SD=8.81), meaning that, on average, they had high knowledge. They had positive attitudes towards the target culture, as evident in their mean score of 42.09 (SD=11.30) on the attitudes subscales. On the awareness subscale, they scored, on average, 56.09 (SD=15.22), which means that their awareness was moderate. Last, these participants possessed high intercultural competence, as evident in their mean score of 37.32 (SD=8.80) on the skills subscale.

Table 5.35 agreeable participants' scores on ICC abilities.

	Knowledge	Attitude	Awareness	Skills
A1	31	34	51	30
A2	36	46	52	45
A3	28	29	38	27
A4	43	43	49	34
A5	30	34	25	28
A6	37	44	61	33
A7	26	42	40	28
A8	24	25	48	26
A9	38	35	52	26
A10	50	53	53	39
A11	43	53	78	50
A12	22	23	46	33
A13	26	32	48	33
A14	34	52	77	50

Within the broader literature, agreeable individuals are described as friendly, compassionate, cooperative and helpful (McCrae and Costa, 2008, p. 32). They tend to have a prosocial orientation, regardless of whether these other people are their country nationals (Carpara, et al., 2010, p. 41). Accordingly, past research finds that international students who score high on agreeableness tend to develop stable relationships with host country nationals and to avoid cross-

cultural conflict (Novikova and Novikova, 2013, p. 629). Tams (2008, p. 179) explains these findings by noting that agreeable students place a great emphasis on increasing their social learning opportunities, which helps them to build quality social networks. Zhang and Mandl (2010, p. 521) further found that, due to their propensity to build strong social ties with local students, agreeable individuals report high levels of sociocultural adjustment. From these findings, one can expect that high agreeableness will be associated with a high intercultural competence.

In the present sample, students who scored high on agreeableness displayed knowledge of host culture and its norms and behaviours. They also displayed positive attitudes towards the host culture. When taken together, these findings suggest that agreeable students wanted to understand the host culture and develop skills to aid their social integration. Highly agreeable students in this research also had high intercultural skills. They showed flexibility and adjusted their behaviour when communicating with the locals, which is in line with past research (Novikova and Novikova, 2013, p. 629). Last, these students had moderate awareness of the importance of their ‘own level of intercultural development’, which further denotes their willingness to adapt to a new culture. To summarise a previous finding on the association between agreeableness and ICC, it was shown that high agreeableness was related to high levels of all ICC abilities at time 1 and with high intercultural knowledge, attitudes and final ICC scores at time 2.

#### **5.6.5. Personality Trait of Conscientiousness**

Conscientiousness, defined as being organised, dutiful and diligent, is the last component of IPIP-NEO-120, which was assessed by 24 statements. Table 5.36 in the Appendix shows that the statements ‘I like to tidy up’, ‘I know how to get things done’ and ‘I keep my promises’ got higher means (4.65, 4.50 and 4.28, respectively). On average, participants in the sample liked to tidy up, knew how to get things done and kept their promises. The statements ‘I jump into things without thinking’, ‘I waste my time’ and ‘I break rules’ received the lowest means (2.36, 1.91 and 1.63,

respectively). This finding suggests that few participants were impulsive, idle and rule breakers. To confirm these results, Figure 5.13 shows the sample response rate on the conscientiousness subscale.

Figure 5.13 Distribution of sample response rate on the conscientiousness subscale

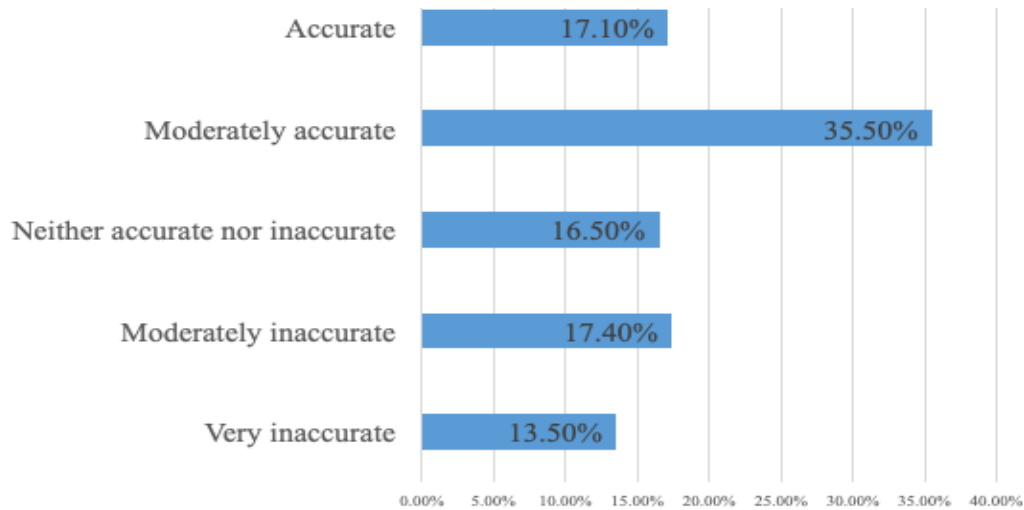


Figure 5.13 shows that the proportion of the sample that responded with ‘Very Accurate’ and ‘Moderately Accurate’ was 52.6% ( $n=1200$ ), which was greater than the proportion of ‘Moderately Inaccurate’ and ‘Very Inaccurate’ responses (30.9%;  $n=704$ ) if excluding ‘Neutral’ responses (16.5%;  $n=376$ ).

Table 5.29 below presents the results of the Pearson’s correlation analyses between conscientiousness and ICC subscales. At time 1, these results in Table 5.37 showed a positive relationship between conscientiousness and knowledge ( $r=0.211$ ), attitudes ( $r=0.332$ ), awareness ( $r=0.390$ ) and skills ( $r=0.286$ ), with all relationships being significant (all  $p<0.05$ ). At time 1, however, there was no significant correlation between conscientiousness and final ICC score ( $r=0.184$ ,  $p>0.05$ ), which is unexpected, especially because conscientiousness correlated with all individual ICC abilities. At time 2, the results in Table 5.37 revealed that conscientiousness was positively and significantly associated with knowledge ( $r=0.314$ ), attitudes ( $r=0.353$ ), awareness ( $r=0.478$ ), skills ( $r=0.424$ ) and final ICC score ( $r=0.548$ ) (all  $p<0.05$ ). It is uncertain why final ICC score correlated significantly with conscientiousness at time 2 but not at time 1. Further

investigation in the interviews explored how this trait influenced the ability to communicate effectively.

Table 5.37 Correlations between conscientiousness and ICC subscales, time 1 and time 2

	<b>Conscientiousness</b>	<b>Knowledge</b>	<b>Attitude</b>	<b>Awareness</b>	<b>Skills</b>	<b>ICC</b>
<b>Time1</b>	Pearson's Correlation	.211	.332	.390	.286	.184
	Sig. (2-tailed)	.040	.020	.022	.032	.080
<b>Time2</b>	Pearson's Correlation	.314	.353	.478	.424	.548
	Sig. (2-tailed)	.022	.010	.000	.002	.000

Note: ICC - intercultural communication competence

Table 5.38 in the appendix presents the demographic and contextual information of conscientious participants. Among 34 (35.8%) of participants with participants had high conscientiousness, only four (11.76%) were women, whereas 30 (88.24%) were men. Concerning their age, four (11.76%) participants were 20 years old or younger, eight (23.53%) were in 21-23 years old, 21 (61.76%) were 24-26 years old age and one (2.95%) was older than 26. Two (5.88%) were born in Afghanistan, one (2.95%) in Chechnya, one (2.95%) in China, two (5.88%) in France, six (17.65%) in India, eight (23.53%) in Pakistan, five (14.71%) in Niger, four (11.76%) in Nigeria, one (2.95%) in the United States and four (11.76%) in Uzbekistan.

Table 5.38 further revealed that out of these 34 participants, 14 (41.18%) stayed in Saudi Arabia for less than a year, 15 (44.11%) for 1-3 years and five (14.71%) for more than four years. The majority of these participants, that is, 25 (73.53%) of them, lived with other international students, six (17.65%) with their family and three (8.82%) with Saudi students. There was nearly an equal number of participants who displayed different oral proficiency levels. Nine (26.47%) communicated with limited capacity, eight (23.53%) communicated only on particular topics, nine (26.47%) spoke with sufficient structural accuracy and vocabulary and eight (23.53%) spoke Arabic fluently and accurately on all levels. Out of these 34 participants, nine (26.47%) had an advisor, 15 (44.12%) volunteered, 15 (44.12%) participated in an orientation programme and seven (20.59%) completed a cross-cultural project.

Table 5.39 displays conscientious participants' scores on ICC abilities. Participants who scored high on conscientiousness had the following scores on the four ICC abilities. Their mean scores were 36.91 (SD=9.56) on the knowledge subscale, 43.32 (SD=11.28) on the attitude subscale, 57.18 (SD=14.23) on the awareness subscale and M=39.31 (SD=8.32) on the skills subscale. When comparing these mean scores to the possible score ranges on each subscale, it can be concluded that these participants displayed high knowledge, highly positive attitudes toward being interculturally competent, high intercultural awareness and high intercultural skills.

Table 5.39 conscientious participants' scores on ICC abilities

	<b>Knowledge</b>	<b>Attitude</b>	<b>Awareness</b>	<b>Skills</b>
C1	38	34	74	51
C2	41	45	61	39
C3	49	61	80	55
C4	38	46	55	39
C5	49	60	83	46
C6	32	15	45	22
C7	53	50	56	41
C8	34	42	59	36
C9	51	54	77	48
C10	30	37	49	30
C11	15	35	69	35
C12	37	45	68	49
C13	37	44	57	38
C14	52	49	59	44
C15	46	46	44	45
C16	25	26	27	32
C17	40	62	66	41
C18	44	54	68	40
C19	46	53	83	52
C20	42	52	56	50
C21	28	30	39	38
C22	21	25	43	29
C23	25	37	62	47
C24	23	47	55	44
C25	40	42	54	35
C26	38	42	39	29
C27	29	31	39	25
C28	40	45	48	39
C29	46	59	75	55
C30	38	52	60	40
C31	29	36	35	29
C32	38	25	46	38
C33	37	49	64	43
C34	24	43	49	33

Previous research has shown that conscientious individuals tend to be organised, dutiful and responsible (McCrae and Costa, 2008, p. 32). They pay attention to detail, follow a schedule and



prefer order over chaos (Giluk, 2009, p. 809). Conscientious individuals are skilful in task-oriented behaviour and display great academic adjustment after moving to a new cultural context (Yusoff and Chelliah, 2010, p. 279). Due to their responsible approach to coping, they also display sufficient psychological and sociocultural adjustment to a new culture (Zhang and Mandl, 2010, p. 520; Wilson, Ward and Fischer, 2013, p. 279). Chen, et al. (2013, p. 434) note that, although past research has established that students who score high on conscientiousness tend to perform well academically and to adjust fine psychologically, it is unclear whether their adaptation is fostered by their duty-prone behaviour or by their intercultural abilities.

The results of the present research contribute to this dilemma. This study has shown that conscientious students display high knowledge, high willingness to interact and communicate and have highly developed intercultural skills. They also realised the importance of cultural differences and diversity in the host culture, and their intercultural development was moderately high. All of this shows that conscientious students indeed possessed highly developed intercultural competence, which helped them adjust to a new cultural context. Importantly and as revealed previously, conscientiousness scores in the whole sample, and not only among highly conscientious individuals, were associated with high levels of all ICC abilities at both times 1 and 2, which helps establish the importance of this trait for ICC development.

## **5.7. Personality Traits and Intercultural Communication Competence**

This section focuses on the relationship between ICC and personality traits, mainly the Big Five personality traits. Each personality trait is assessed against the four abilities of ICC using a multiple linear regression analysis. The results are discussed with reference to academic theory to better understand the implications and significance of these findings. This section should provide a more robust understanding of the data. In conjunction with the findings presented in the previous sections, these findings also were used in the development of the interview questions. The final

paragraph of this section outlines all findings concerning the relationship between personality traits and ICC that were explored in interviews.

The primary aim of the multiple regression analyses was to assess the extent to which the Big Five personality traits, as independent variables or predictors, predicted each ICC subscale as dependent or outcome variables over time. More specifically, multiple regression analyses allowed the researcher to predict the mean value of a dependent variable on the basis of the specified value of various independent variables (Field, 2013, p. 321). Thus, the analyses aimed to establish whether the mean values of ICC abilities could be predicted based on the values of personality traits.

The first two analyses used the Big Five personality traits as predictors and participants' knowledge scores at times 1 and 2 as outcome variables. The results of these analyses are summarised in Table 5.40.

Table 5.40 Coefficients between knowledge and personality traits, time 1 and time 2

Model	Unstandardized B Coefficients		t		Sig.	
	B		Time1	Time2	Time1	Time2
	Time1	Time2				
(Constant)	25.968	15.035	15.877	2.632	.000	.011
Neuroticism	-.334	.243	-3.848	1.738	.000	.089
Extroversion	-.143	.393	-1.693	2.315	.091	.025
Openness	.593	.099	6.621	.571	.000	.571
Agreeableness	-.126	.039	-1.754	.256	.080	.799
Conscientiousness	.257	-.202	3.609	-1.159	.000	.252
Time 1	a. Dependent variable: Knowledge			Time 2	a. Dependent variable: Knowledge	
	b. F=16.06, <i>p</i> =0.000, adj. R <sup>2</sup> =.143				b. F=5.90, <i>p</i> =0.000, adj. R <sup>2</sup> =.320	

Table 5.40 showed that when the knowledge subscale at time 1 was used as a dependent variable, the overall regression model significantly predicted knowledge scores ( $F(2,92)=16.06$ ,  $p=0.000$ ).

Looking at individual predictors, the results revealed that high openness to experience ( $B=0.59$ ,

$p=0.000$ ) and high conscientiousness ( $B=0.25$ ,  $p=0.000$ ) predicted knowledge scores, as shown in Table 5.40. Another trait that predicted knowledge scores at time 1 was neuroticism ( $B=-0.34$ ,  $p=0.000$ ). The relationship between these variables was negative, which suggests that high knowledge scores were predicted by low neuroticism scores. From these findings, it can be inferred that individuals who score high on openness to experience and conscientiousness tend to have to ‘describe a model of cross-cultural adjustment stages’ and those who score low on neuroticism tend to be knowledgeable about overcoming culture stress. This finding aligns with those of Peifer and Yangchen (2017, p. 13), who found that these traits had an effect on intercultural adaptation. Results in Table 5.40 further showed that agreeableness ( $B=0.12$ ,  $p=0.080$ ) and extroversion ( $B=0.14$ ,  $p=0.091$ ) did not predict knowledge scores, which suggests that participants’ intercultural knowledge did not depend on these traits ( $p>0.05$ ). These findings are surprising, because past research has revealed that extroversion is a central predictor of intercultural adaptation (Peifer and Yangchen, 2017, p. 14). For this reason, the relationship between extroversion and ICC was explored in the interviews.

Another multiple regression was conducted at time 2 to investigate whether personality traits significantly predicted participants’ knowledge. The results in Table 5.40 indicated that the regression model was a significant predictor of knowledge ( $F(5,47)=5.90$ ,  $p=0.000$ ). Concerning individual predictors, findings suggested that extroversion was the only significant predictor of intercultural knowledge at time 2 ( $B=0.39$ ,  $p=0.025$ ). Higher extroversion predicted higher knowledge scores. However, neuroticism ( $B=0.23$ ,  $p=0.89$ ), openness to experience ( $B=0.09$ ,  $p=0.571$ ), agreeableness ( $B=0.39$ ,  $p=0.799$ ) and conscientiousness ( $B=0.20$ ,  $p=0.25$ ) did not predict knowledge scores. It appeared that at the first assessment international students’ intercultural knowledge could be acquired by being open to experience, conscientious and emotionally stable. As time passed, however, the initially acquired intercultural knowledge was expanded by being extroverted and interacting with many people.

In the following two regression analysis, participants' intercultural attitudes at time 1 and time 2 were held as dependent variables. Table 5.41 presents the results.

Table 5.41 Coefficients between attitude and personality traits, time 1 and time 2

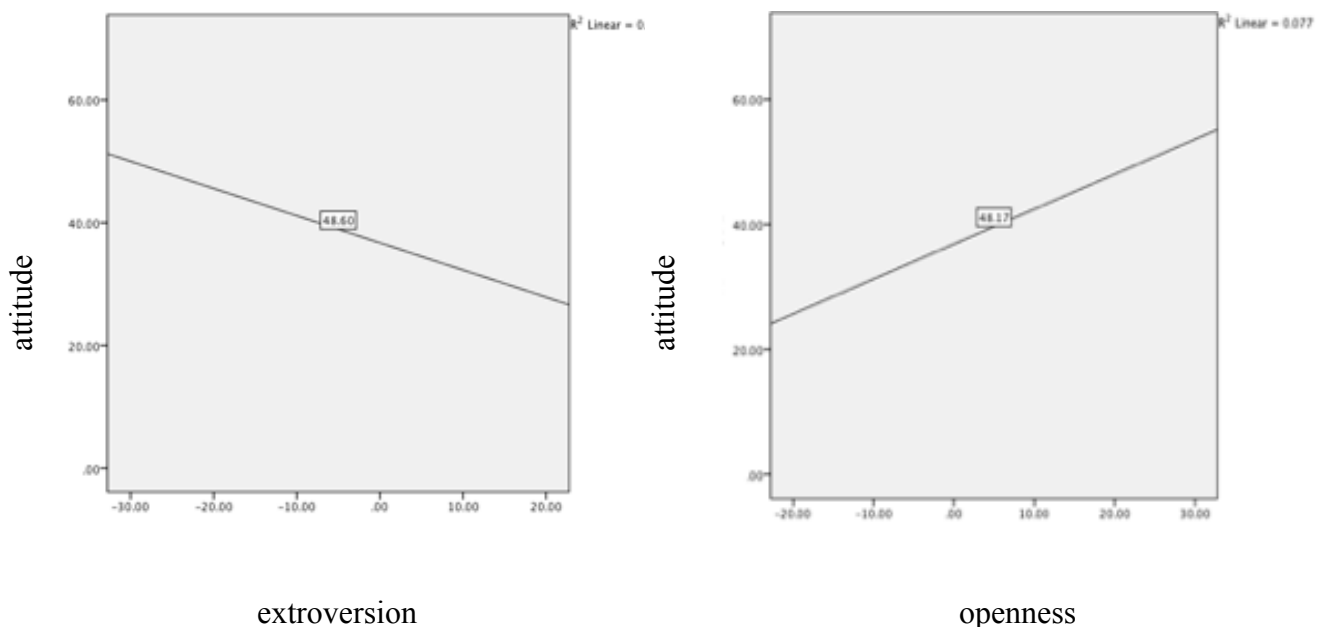
Model	Unstandardized B Coefficients		t		Sig.	
	Time1	Time2	Time1	Time2	Time1	Time2
(Constant)	33.240	31.390	17.054	4.984	.000	.000
Neuroticism	-.537	.168	-5.183	1.093	.000	.130
Extroversion	-.211	-.105	-2.088	-.560	.037	.558
Openness	.693	.294	6.461	1.541	.000	.588
Agreeableness	-.004	-.098	-.043	-.589	.965	.280
Conscientiousness	.128	.105	1.509	.545	.132	.578
Time 1	a. Dependent variable: Attitude b. $F=14.92, p=0.000$ , adj. $R^2=.135$		Time 2	a. Dependent variable: Attitude b. $F=2.696, p=0.032$ , adj. $R^2=.140$		

At time 1, the multiple linear regression in Table 5.41 showed that the overall regression model significantly predicted attitude scores ( $F(5,47)=14.92, p=0.000$ ). Regarding specific personality traits, results revealed a negative relation between neuroticism and attitude ( $B=-0.537, p=0.000$ ), meaning that lower neuroticism scores predicted a more positive intercultural attitude. Agreeableness ( $B=-0.004, p=0.965$ ) and conscientiousness ( $B=.128, p=0.132$ ) did not predict attitude (both  $p>0.05$ ). the current finding suggests that high extroversion predicted low attitude scores ( $B=-0.211, p=0.037$ ), which contradicts Goldberg's (1993, pp. 29-30) and McRae and Sutin's (2007, p. 424) findings, who suggest that those who score high on extroversion tend to have high cultural competence because their extroversion allows them to be more sociable. Similarly, Hogan (2005, p. 331) and Connolly and Viswesvaran (2000, p. 265) state that extroversion helps individuals navigate difficult or challenging social situation, especially in new cultural settings. However, research findings presented by Eysenck (1992, p. 133) and Wolf and Ackerman (2005, p. 531) suggest that the benefits of extroversion in an academic setting occur

mainly in primary and secondary school years. As one matures, openness to experience is more likely to define social competence and success, because those who score high on openness to experience tend to be insightful and intelligent while also possessing a high willingness to learn (Eysenck, 1992, p. 133, Rogers, Creed and Glendon, 2008, p. 141).

Indeed, this study found that at time 1, higher openness to experience predicted more positive intercultural attitudes ( $B=.693$ ,  $p=0.000$ ). Figure 5.14 shows that there was a positive relationship between openness to experience and attitude. Thus, when one increases, so does the other. The same, however, cannot be said regarding the relationship between extroversion and attitude. Extroversion is inversely proportional to attitude. This suggests that higher extroversion had a negative effect on intercultural attitudes, which is a surprising finding that was explored in the interviews. The results on openness to experience, due to their clarity, was not explored in the interviews.

Figure 5.14 The relationship between attitude and extroversion and openness at time 1



In terms of ICC, the literature confirms that openness to experience is central for the development of positive attitudes towards other cultures, particularly their rules and values (van der Zee and van Oudenhoven 2013, p. 928). Students who score highly on openness to experience, a multi-

cultural personality dimension, tend to have unprejudiced attitudes toward other cultural groups (Ting-Toomey and Dorjee 2018, p. 337; Williams and Johnson 2011, p. 43; Vermetten, Lodewijks and Vermunt, 2001, p. 150). In that sense, the findings of the current study align with those of Deardorff (2009, p. 266) and Pusch (2009, p. 70) in that the correlation between openness to experience and attitude is fundamental to development of ICC, including the ability to not only find similarities between cultures, but differences as well.

Peifer and Yangchen (2017, p. 13) claimed that conscientiousness is a significant predictor of positive attitudes towards different cultures. As outlined previously, conscientiousness ( $B=0.12$ ,  $p=0.132$ ) did not predict intercultural attitudes in this study. Again, regardless of the number of participants who identified as conscientious, a major limitation relates to the fact that conscientiousness scores were based on self-assessments. Therefore, within interviews, the researcher explored the extent to which participants were actually conscientious as opposed to having skewed perception of their character. It is also worth noting that what emerged from the self-assessments was a phenomenon described by Mottus, et al. (2010, p. 306) and Chen, et al. (2014, p. 426) as the ‘Conscientiousness Paradox’, which refers to the disparity between more ‘conscientious’ and less ‘conscientious’ nations. Scholarly works regarding this issue revealed that self-reported personality trait tests can be misleading due to social bias (Mottus, et al. 2010, p. 306; Chen, et al. 2014, p. 433; Chan and Sy 2016, p. 288).

When discussing the relationship between personality traits and intercultural attitudes, at time 2, none of the personality traits predicted attitude scores, as all  $p$  values were higher than 0.05 (see Table 5.31). It is uncertain why, as time passes, none of these traits remain central for ICC. The researcher thus explored participants’ perceptions of their personality traits and how they think their personality affects ICC in the interviews.

A further two multiple regression analyses assessed whether personality traits predicted participants’ intercultural awareness at times 1 and 2, as summarised in Table 5.42.

Table 5.42 Coefficients between awareness and personality traits, time 1 and time 2

Model	Unstandardized B Coefficients		t		Sig.	
			Time1	Time2	Time1	Time2
	Time1	Time2				
(Constant)	40.040	31.338	15.881	3.882	.000	.000
Neuroticism	-.683	-.172	-5.003	-.873	.000	.387
Extroversion	.056	-.001	.422	-.002	.673	.998
Openness	.708	.790	4.955	3.236	.000	.002
Agreeableness	.244	-.341	2.138	-1.600	.033	.116
Conscientiousness	.112	.293	1.013	1.189	.312	.240
Time 1	a. Dependent variable: Awareness			Time 2	a. Dependent variable: Awareness	
	b. F=16.955, p=0.000, adj. R <sup>2</sup> =.155				b. F=6.39, p=0.000, adj. R <sup>2</sup> =.342	

As reported in Table 5.42, the results of a multiple regression analysis indicated that the regression model, which included all personality traits as predictors, significantly predicted awareness scores at time 1 ( $F(2,92)=16.96$ ,  $p=0.000$ ). Here, higher openness to experience ( $B=0.70$ ,  $p=0.000$ ) and agreeableness ( $B=.24$ ,  $p=0.033$ ) significantly predicted awareness at time 1. This result resonates with Ang, van Dyne and Koh's (2006, p. 104) findings, which revealed that openness to experience and agreeableness were key determinant of cultural intelligence. In this research, moreover, neuroticism was the only personality trait that negatively predicted awareness ( $B=-0.68$ ,  $p=0.000$ ), meaning that higher neuroticism scores predicted lower intercultural awareness. Duff, Tahbaz and Chan (2012, p. 5) suggested that individuals with neurotic traits tend to struggle with forming social relations, which aligns with the current findings. Finally, at time 1, extroversion ( $B=0.05$ ,  $p=0.673$ ) and conscientiousness ( $B=0.11$ ,  $p=0.312$ ) did not act as significant predictors of awareness. At time 2, a regression analysis in Table 5.42 revealed that the overall regression model significantly predicted awareness scores ( $F(5,47)=6.39$ ,  $p=0.000$ ). Out of the five predictors, openness to experience ( $B=0.79$ ,  $p=0.002$ ) was the only significant predictor of awareness. This finding suggests that higher openness predicted higher awareness scores. Other traits, including neuroticism ( $B=0.17$ ,  $p=0.387$ ), extroversion ( $B=0.001$ ,  $p=0.998$ ),

agreeableness ( $B=0.34$ ,  $p=0.116$ ) and conscientiousness ( $B=0.29$ ,  $p=0.24$ ) (all  $p>0.05$ ) did not predict awareness at time 2. It appears that, as students stayed in Saudi Arabia longer, openness to experience remained the only important predictor of intercultural awareness, whereas low neuroticism and high agreeableness lost their importance in assuring higher awareness scores.

It is particularly interesting that this study found that conscientiousness did not affect intercultural awareness. To recap, awareness within the context of ICC relates to the ability to recognise culture as a concept that can be observed in the real-world and an understanding of similarities and differences in cultural-generally (Bouchard, 2017, p. 150). As previously highlighted in the introductory chapters of this thesis, conscientiousness tends to relate vigilance, order, efficiency and carefulness (Ang, van Dyne and Koh, 2006, p. 102). Participants who score high on conscientiousness tend to be aware of conditions required to maintain social order and harmony, and they take obligations seriously (Duff, Tahbaz and Chan, 2012, p. 5; Ang, van Dyne and Koh, 2006, p. 104). When discussing the relationship between ICC and personality traits, Yeke and Smercioz (2016, p. 316) stated that individuals who are conscientious tend to have more information regarding cultures, norms and values of those around them. However, the results of this study refuted this evidence, instead indicating that conscientiousness did not predict awareness. For this reason, participants' perceptions of their conscientiousness were explored in interviews.

In terms of the skills subscale, a set of multiple regression analyses explored whether personality traits predicted intercultural skills at times 1 or 2, as reported in Table 5.43.



Table 5.43 Coefficients between skills and personality traits, time 1 and time 2

Model	Unstandardized B Coefficients		t		Sig.	
	Time1	Time2	Time1	Time2	Time1	Time2
(Constant)	27.991	19.820	17.903	3.800	.000	.000
Neuroticism	-.370	-.164	-4.470	-1.283	.000	.206
Extroversion	-.002	.379	-.019	2.445	.985	.018
Openness	.338	.141	3.951	.893	.000	.377
Agreeableness	.024	-.211	.344	-1.531	.731	.132
Conscientiousness	.141	.230	2.070	1.448	.039	.154
Time 1	a. Dependent variable: Skills		Time 2	a. Dependent variable: Skills		
	b. F=11.423, <i>p</i> =0.000, adj. R <sup>2</sup> =.104			b. F=5.065, <i>p</i> =0.001, adj. R <sup>2</sup> =.281		

The results of a regression analysis in Table 5.43 indicated that the overall regression model was a significant predictor of skills at time 1 ( $F(2,92)=11.42$ ,  $p=0.000$ ). Higher conscientiousness ( $B=0.14$ ,  $p=0.039$ ) and openness to experience ( $B=0.33$ ,  $p=0.000$ ) both predicted intercultural skills at time 1. In contrast, the results in Table 5.43 showed that extroversion ( $B=0.002$ ,  $p=0.98$ ) and agreeableness ( $B=0.124$ ,  $p=0.731$ ) did not predict skills scores ( $p>0.05$ ), and higher neuroticism scores significantly predicted low intercultural skills ( $B=0.37$ ,  $p=0.000$ ). At time 2, the overall regression model was a significant predictor of skills ( $F(5,47)=5.06$ ,  $p=0.001$ ). Regarding individual predictors, the results in Table 5.43 showed that extroversion was the only significant predictor of intercultural skills ( $B=0.37$ ,  $p=0.018$ ). This finding indicates that higher extroversion among participants predicted higher skills scores. Neuroticism ( $B=0.16$ ,  $p=0.206$ ), openness to experience ( $B=0.14$ ,  $p=0.377$ ), agreeableness ( $B=0.21$ ,  $p=0.132$ ) and conscientiousness ( $B=0.23$ ,  $p=0.154$ ) did not predict participants' scores on the skills subscale.

Based on these findings, it can be concluded that in the Saudi context, international students most likely developed intercultural skills if they were dutiful, organised, curious, open to new experiences and emotionally stable. These traits help students orient to a new culture and avoid

negative emotional consequences. As students stay in a country longer, their conscientiousness, openness to experience and neuroticism become less important for their intercultural skills. They become more skilful intercultural communicators as they continue socialising with other people and exhibiting high extroversion.

The last set of multiple regression analyses investigated whether personality traits significantly predicted participants' final ICC scores, as summarised in Table 5.44.

Table 5.44 Coefficients between ICC and personality traits, time 1 and time 2

Model	Unstandardized B Coefficients		t		Sig.	
	Time1	Time2	Time1	Time2	Time1	Time2
(Constant)	128.949	97.583	18.296	6.051	.000	.000
Neuroticism	-2.029	-2.075	-5.301	.191	.000	.050
Extroversion	-.528	.667	-1.411	.221	.159	.171
Openness	2.682	1.323	6.684	2.713	.000	.009
Agreeableness	.225	-.611	.706	-1.435	.481	.158
Conscientiousness	.598	.426	1.935	.866	.054	.391
Time 1	a. Dependent variable: ICC b. $F=18.816, p<.000$ , adj. $R^2=.171$		Time 2	a. Dependent variable: ICC b. $F=9.525, p<.000$ , adj. $R^2=.450$		

The results of regression analyses in Table 5.44 indicated that the overall regression model was a significant predictor of final ICC scores both at time 1 ( $F(2,94)=18.81, p=0.000$ ) and at time 2 ( $F(5,47)=9.52, p=0.000$ ). Initially, the findings indicated that higher openness to experience predicted higher ICC scores at both time 1 ( $B=2.68, p=0.000$ ) and time 2 ( $B=1.32, p=0.009$ ). Thus, the more open students were, the more likely were they to possess high ICC. Neuroticism emerged as a significant negative predictor of final ICC scores at time 1 ( $B=-2.02, p=0.000$ ) and also acted as a negative predictor at time 2 ( $B=-2.075, p=.005$ ). One could argue that during their study-abroad experience students' negative emotions continue to affect their ICC.

Neuroticism could affect ICC during the first months of studying abroad because students experience adaptation difficulties which continue over time.

In addition to this, the results in Table 5.44 showed that conscientiousness did not predict final ICC scores at time 1 ( $B=0.59, p=0.054$ ) or time 2 ( $B=0.426, p=0.391$ ). Similarly, final ICC scores could not be predicted by the participants' agreeableness at time 1 ( $B=0.225, p=0.481$ ) or time 2 ( $B=0.611, p=0.158$ ). Lastly, extroversion did not act as a significant predictor of ICC at time 1 ( $B=-0.52, p=0.159$ ) or time 2 ( $B=0.667, p=0.171$ ). This last finding may come as a surprise, given that extroversion is an attribute of individuals who are sociable, energetic and talkative, and it is generally assumed in the literature that extroversion is central for intercultural adaptation (Hayes and Joseph, 2003, p. 726).

Concerning these findings, Wilson, Ward and Fischer's (2013, p. 900) study, which explored the relationship between personality and sociocultural adaptation, found that agreeableness, extroversion and conscientiousness all affect individuals' ability to adapt and integrate into a new cultural environment. Unlike Poropat (2009, p. 332), Wilson, Ward and Fischer (2013, p. 900) included contextual factors, such as the length of residency abroad, previous cultural experiences, cultural knowledge and perceived discrimination. Blume, et al. (2010, p. 1065) and Kappe and van der Flier (2010, p. 142) also found that conscientiousness, extroversion and agreeableness are relevant for the development of ICC, especially increasing intercultural awareness and ensuring successful and meaningful relationships with individuals from different cultures. Wilson, Ward and Fischer's (2013, p. 900) situational factors were found to play a mediating role between social actors' personality traits and their ability to adapt to new cultures. In this research, however, none of these traits were identified as central for international students' ICC. Instead, this study found that only low neuroticism and openness to experience were consistent predictors of ICC scores, meaning that the relationship between low neuroticism and openness to experience on one hand and ICC on the other was evident regardless of the time at which students were assessed.

Some final remarks are necessary. First, consciousness as a predictor of ICC almost reached significance. Thus, the researcher found it important to explore in interviews the degree to which participants who claimed to be conscientious really possessed this trait. Interviews also explored the views of conscientious individuals on ICC, revealing (as will be shown later) that conscientious respondents encountered certain challenges with intercultural communication. However, they were reluctant to admit or reveal the full extent of these challenges. Also, it was surprising that extroversion did not predict ICC in this study. Past researchers claim that sociable and outgoing students tend to perform better in intercultural contexts. For this reason, interviews explored how students conceptualised the trait of extroversion. As will be revealed later, most participants equated extroversion to openness, which could be why extroversion did not predict ICC scores, but openness to experience did.

## **5.8. Summary**

This research found several important findings. At time 1, out of 120 distributed questionnaires, 108 were returned and 95 were accepted for the final analysis. At time 2, 53 questionnaires were accepted which demonstrates a high participant response rate. Both primary measures used in this research to assess participants' ICC abilities and personality traits had sufficient reliability and validity. Descriptive and frequencies statistics revealed that at both time 1 and time 2, the most participants in the research were men aged 24 to 26 years. At both assessment points, the highest portion of students came to Saudi Arabia from Asian countries (i.e. Afghanistan, India, Pakistan, Uzbekistan). Most stayed in Saudi Arabia for 1-3 years, spoke Arabic either with sufficient structural accuracy or fluently and were housed together with international students. Last, the highest number of participants reported not meeting with a cultural advisor and not conducting a cross-cultural research project, whereas there was an equal number of participants who did versus did not work as a volunteer and attended an orientation programme.

In the first phase of the research, it was found that participants' ICC abilities improved from time 1 to time 2. When assessing the relationship between demographic data and ICC abilities, this research revealed no significant association between gender and age on the one hand and ICC abilities on the other, at both times 1 and 2. The effect of participants' country of origin was significant, with Asian students scoring higher on ICC than other students but only at time 1. As students stayed in Saudi Arabia longer, all differences in ICC between students from different countries disappeared.

Out of the seven assessed contextual factors, only length of stay in Saudi Arabia affected all four ICC abilities, but this effect was not significant at time 2, perhaps because at this assessment point all participants had stayed in Saudi Arabia for similar lengths of time. Participants' scores on the knowledge subscale were affected by their oral language proficiency, volunteering experiences and cross-cultural research project participation but only at time 1. It was argued that these contextual factors affected only intercultural knowledge, because they did not necessitate students' interaction with host country locals, which is necessary to build intercultural awareness and skills and positive intercultural attitudes. It was also postulated that these contextual factors affected knowledge only at time 2, because most of those participants came from countries that were culturally similar to Saudi Arabia.

Participants' volunteering was linked to high intercultural skills, whereas type of housing and having a cultural advisor did not affect any ICC abilities at either assessment point. A particularly surprising finding was that participants' engagement in an orientation programme did not affect any of the four ICC abilities at both assessment points. A possible explanation here is that the orientation programme was of low quality or that students who participated in these programmes tended to be students with particularly low ICC levels.

The results further revealed specific correlations between participants' scores on the four ICC abilities and their Big Five personality traits. Scores on the knowledge subscale were positively

associated with extroversion, openness to experience, agreeableness and conscientiousness and negatively associated with neuroticism at both time points. A regression analysis showed that knowledge scores could be predicted by higher openness and conscientiousness and lower neuroticism at time 1 and higher extroversion at time 2. Scores on the attitude subscale were further linked to higher extroversion, openness to experience, agreeableness, conscientiousness and lower neuroticism at both times 1 and 2. According to the results of regression analyses, more positive intercultural attitudes could be predicted by lower neuroticism, lower extroversion and higher openness but only at time 1.

There was a positive association between awareness and conscientiousness, extroversion and openness and a negative association between awareness and neuroticism at both time points. Positive association between awareness and agreeableness was significant only at time 1. A regression analysis further revealed that awareness could be predicted by higher openness and agreeableness and lower neuroticism at time 1 and higher openness to experience at time 2. Scores on the skills ability were positively related with higher extroversion, openness to experience, agreeableness and conscientiousness at time 1 and with higher extroversion, openness and conscientiousness at time 2. According to a regression analysis, skills scores could be predicted by higher conscientiousness and openness and lower neuroticism at time 1 and by higher extroversion at time 2. Finally, a regression analysis revealed that the overall ICC scores could be predicted by lower neuroticism and higher openness at time 1 and time 2.

Some of these effects were explored in interviews. For instance, the researcher chose to question students about their perceptions of the orientation programme offered at the university, as this was hoped to provide clarity on the lack of effect of the orientation programme on ICC abilities. Another important focus was on exploring participants' perceptions of their conscientiousness and extroversion and how these traits relate to ICC. These explorations were necessary to explain why these traits, which are considered crucial for intercultural adaptation, did not predict

participants' ICC scores. The interviews also explored how gender affected ICC to make sense of the lack of significant gender differences in ICC. Additional focuses were on investigating participants' perceptions of Arabic diglossia and its impact on ICC, as well as perceptions on what is more important for ICC development: length of stay in the host country or cultural contact within a new cultural setting. The following chapter of the thesis presents the results of these explorations.

## **6. Interview Results**

During the second phase of the research, interviews were held with 12 participants who completed questionnaires in the first phase of the research. The participants were selected on the basis of their high scores for personality traits of extroversion, conscientiousness and openness to experience, which are assumed to have an impact on intercultural communication competence (ICC) development. Through interviews, the research sought to explore the nature of ICC development, as well as areas relating to self-reporting bias, to better discern the extent to which their views, opinions and experiences reflected their questionnaire results. These interviews also provided an opportunity to explore key areas of interest that emerged in the first phase of the research and to gain a more in-depth understanding of personality traits within the context of an intercultural setting. The following sections of the chapter focus on the design of interview questions used within the research and the findings gathered through semi-structured interviews that were held in Saudi Arabia at the Umm Al Qura University.

### **6.1. Interview Questions**

The interview questions consisted of two sets. The first set of questions aimed to generate additional information about participants' experiences in a new cultural environment. Data elicited from interviews complete the picture of ICC development and add meaning to preliminary survey results by exploring how ICC is expressed in participants' behaviours (Sinicrope, Norris and Watanabe, 2007, p. 30). Thus, this research drew on Fantini and Tirmizi's (2006, p. 37) following questions to address interviewees' development and overall nature of ICC:

1. 'What abilities do you think are important for intercultural success?
2. To what extent did you develop these abilities? Why or why not?
3. Was learning of the host language important to your success? Why or why not?
4. What impact did this intercultural service experience have on your life?



5. How and to what extent have you utilised any of these abilities in your own life and work?
6. Any additional comments?' (Fantini and Tirmizi, 2006, p. 37).

The second set of questions addressed specific topics (see Table 6.1 in the Appendix for the full list of interview questions). One goal of the interviews was to overcome the limitations of using self-reports when assessing specific contextual factors that were investigated in the survey phase of this research. As mentioned previously, a main issue of self-reports relates to the potential bias that this type of assessment brings. Specifically, the primary problem of self-report measures is that participants tend to over-report or underestimate their abilities (McDonald, 2008, p. 94). For example, in Chapter 5, it was noted that participants might have over-reported their Arabic language proficiency because they wanted to seem socially desirable way. Therefore, the interviewees were asked to bring with them proof or supporting evidence of their proficiency in Arabic to validate their questionnaire responses. The importance of this step was evident in actual interviews, where it was revealed that participants had overestimated and underestimated their oral proficiency in Arabic. This point will be addressed in the following section of this chapter.

A further set of questions explored the relationship between international students' personality traits and their ability to communicate effectively in an intercultural context. The answers to these questions were expected to clarify key issues that emerged in the first phase of the research. Interviews were initially used to validate participants' answers on statements that focused on their ICC abilities. One such statement was 'I know the essential norms and taboos of the host culture (e.g. greetings, dress, behaviour, etc.)', with which 93% of respondents agreed. Another relevant statement that earned a high agreement among participants was 'I realise the importance of factors that helped or hindered my intercultural development and ways to overcome them'. To validate such questionnaire responses, interviewees were asked to identify which essential norms and taboos of the host culture they were familiar with and what enhanced or hindered their ICC

development. This validation allowed for in-depth analysis and a convincing assessment of the extent to which respondents were self-aware and able to identify what prevented them from developing ICC in this context.

Another important focus of the interviews related to the link between extroversion and ICC. Past studies have found that extroversion is a trait that fosters international students' adaptation to a new cultural context (Swangler and Jome, 2005, p. 534; Blume, et al., 2010, p. 1065). However, the results from the survey revealed that extroversion did not predict ICC. Thus, to find out the reasons behind the lack of this correlation, within the interviews, they were asked to identify their communication styles and the extent to which they adapt to new cultural contexts. In addition, they were asked to note how they deal with cultural diversity and the behaviours of others around them and to outline how they cope with social situations.

## **6.2. Participant Characteristics**

As mentioned previously, the researcher collected qualitative data from 12 international students from the Institute of Arabic language for Non-Native Speakers. Table 6.2 provides details about participants in terms of their gender, country of origin, dominant personality trait, oral proficiency and Arabic language test score. It also lists the pseudonyms that participants chose for themselves. As revealed in the table, the sample consisted of six male and six female participants. Six participants (50%) came from Africa (including Nigeria, Niger and Kenya), three (25%) from Asia (including India and Pakistan), two (16.67%) from Europe (including France and Chechnya) and one (8.33%) from North America (the United States). Regarding their dominant personality trait, four (33.33%) participants scored highest on conscientiousness, four (33.33%) on openness to experience and four (33.33%) on extroversion.

Table 6.2 Participant characteristics

<b>Name</b>	<b>Gender</b>	<b>Country of origin</b>	<b>Personality trait</b>	<b>Arabic oral proficiency level*</b>	<b>Test score</b>
Abdul Malik	Male	United States	conscientiousness	A	93
Ahmad	Male	Niger	openness to experience	B	85
Bassim	Male	Nigeria	conscientiousness	B	90
Fatmah	Female	India	openness to experience	B	84
Khalid	Male	Chechnya	extroversion	D	77
Madawi	Female	Nigeria	conscientiousness	A	90
Mariyam	Female	Niger	extroversion	D	77
Nouf	Female	Pakistan	openness to experience	A	80
Razaz	Female	India	conscientiousness	C	89
Sulaiman	Male	France	extroversion	B	74
Wadha	Female	Nigeria	extroversion	D	75
Zakariya	Male	Kenya	openness to experience	A	95

Table 6.2 also shows that three (25%) participants said that they were able to speak Arabic fluently and accurately on all levels. These<sup>2</sup> participants had high scores on the Arabic language test, ranging from 80 to 93. Four (33.33%) reported that they were able to speak Arabic with sufficient structural accuracy and vocabulary, and these participants also revealed high scores on the language test, ranging from 84 to 90. Only one of the participants said that he could communicate on particular topics and this participant had a score of 74 on the Arabic language test, which was lower than that of participants who claimed they were able to speak Arabic fluently. Finally, three (25%) participants noted that they could communicate only in a limited capacity. It appears that,

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<sup>2</sup> A - able to speak Arabic fluently and accurately on all levels; B - able to speak with sufficient structural accuracy and vocabulary; C - able to communicate on some concrete topics; D - able to communicate only in limited capacity

within the questionnaire, these participants underestimated their oral language proficiency, since their actual test scores ranged from 75 to 77.

Some participants with the highest language proficiency test scores did not necessarily speak languages that were similar to Arabic or belonging to the same language family (e.g. Afro-Asiatic). For instance, some of the highest test scores were held by participants from the United States and India. Because most Muslim languages have high levels of Arabic vocabulary, one would expect that participants who speak similar languages would better test scores, which was confirmed in the case of Zakariya. This Muslim participant from Kenya presumably spoke Swahili, a language known for its adoption of Arabic (Prins, 2017, p. 32; Mazrui, 2007, p. 226). His test score of 95 indicated that his Arabic language skills were well-developed because of similarities between Swahili and Arabic. Madawi, who came from Nigeria, had a test score of 90. As Newman (2013, p. 68) confirmed, the Nigerian language of Hausa is written using a variant of Arabic script.

However, Wadha, also from Nigeria, had the lowest Arabic test score of all participants who took part in semi-structured interviews. Thus, test scores alone were not indicative of closeness in language. This conclusion also does not account for day-to-day communication (e.g. Wadha's mother tongue could have aided her Arabic language proficiency). In support of this notion, various authors suggested that individuals who move to a new country from a country where a similar language is spoken find it easier to engage in everyday communication but do not necessarily have well-developed academic skills in that language (Hour and Rossi, 2010, p. 8; Green, 2007, p. 54; Johnson, Lenartowicz and Apud, 2006, p. 536; Liddicoat, 2002, p. 12). From the present analysis, it can be concluded that a similar native language sometimes aided participants' ability to speak Arabic fluently, whereas other participants had high Arabic language test scores despite a pronounced lack of similarity between their native and Arabic languages.

### **6.3. Interview Results**

The interviews sought to explore the nature of ICC development from participants' views and opinions. These interviews also explored key areas of interest that emerged in the survey phase of the research and to understand personality traits within the context of an intercultural setting. The following sections of the chapter focus on the results of semi-structured interviews relating to the two sets of questions.

#### **6.3.1. First Set of Questions**

As emphasized by Sinicrope, Norris and Watanabe (2007, p. 30), interview data can be used to add meaning to participants' survey responses. This section provides additional information regarding participants' ICC and their experiences in a new cultural environment, which were previously explored in a survey form, by thematically analysing their interview answers to six questions.

Concerning the abilities participants think are important for intercultural success, out of twelve students who took part in interviews, eight thought that intercultural knowledge is the most crucial ICC ability. These participants argued that intercultural knowledge is essential for understanding the Saudi culture, people, and community. A female student from India said that 'it is through knowledge that one can learn about the culture of a host country'. Similarly, a female participant from Nigeria suggested that intercultural knowledge is necessary to 'know the life of a community one does not belong in'. There were also mentions of knowledge being essential for getting accustomed to 'cultural differences between societies and trying to accept them' (male student from Africa). Participants further argued that an understanding of Saudi culture, which is gained via intercultural knowledge, is a key for communicating. A male student from Africa said: 'If I understand the culture in Saudi Arabia, I am then able to deal with the Saudis'. Lastly, participants contended that it is because intercultural knowledge aids the understanding of Saudi culture and

people that this ability helps students ‘to integrate with people in the country’ (female participant from India) and ‘to facilitate familiarity with and adaptation to a new culture’ (female participant from Nigeria). These findings confirm the idea that intercultural knowledge is essential for integration (Zimmerman, 1995, p. 328).

Two students thought that intercultural skills are the most important ICC ability because, in their opinion, this ability ‘leads to adaptation’ (male student from France) and ‘helps in becoming friends with Saudi nationals’ (male student from Kenya). Only one participant, a male from Chechnya, argued that intercultural attitudes are most central for intercultural success because it is via displaying positive attitudes that one can get accepted in Saudi society. Finally, a female participant from Nigeria argued that all ICC abilities are equally important because ‘when integrated with each other, they qualify the learner to communicate with the new cultural community’.

In terms of the extent they developed these abilities, participants’ answers suggested that they first developed intercultural knowledge and then other ICC abilities. Seven participants claimed that they have initially developed intercultural knowledge, which aided their acquiring of other intercultural abilities. A male student from the United States, for instance, said that ‘the more you know about Saudi culture, the more mindful you are’, which suggests that knowledge was essential for developing intercultural awareness. A female participant from India emphasised the importance of knowledge for fostering intercultural skills, as ‘the more knowledgeable you are, the more you try to be attentive not to do things that might be misunderstood’. A female participant from Africa added that knowing about Saudi culture helps in being ‘open towards cultural differences that characterise Saudi society’, meaning that her knowledge helped in building positive intercultural attitudes. Another relevant example was provided by a male student from France, who claimed that his intercultural knowledge aided the development of all other ICC abilities. He said: ‘I think they have all improved based on the knowledge I possess through

watching TV and surfing Internet'. Comparable results were obtained in past studies, where intercultural knowledge was recognised as a prerequisite for successful ICC development (Bender, Wright, and Lopatto, 2009, p. 318).

When identifying reasons how these ICC abilities could be developed, participants tended to provide similar responses. They claimed that these abilities could be developed through immersion in the host culture. A male student from the United States provided an intriguing analogy, which explains why immersion is important for ICC. He said: 'You can go on a holiday and have an excellent experience if you are open to that culture. If you stay in the hotel, it is not going to be as fun as it could be'. Other exemplary comments suggested that students developed their ICC abilities via 'intense contact with the hosts' (female student from Pakistan) and through 'interacting and engaging' (male student from Africa), both of which are examples of immersion in a host culture (Fantini, 2009, p. 46). Similarly, a female participant from Nigeria stated that she did not develop ICC abilities because of her 'lack of engagement and involvement in Saudi society'. These findings confirm those of past studies, which found that immersion in host culture is central for ICC development (Holliday, 2017, p. 218).

Participants' answers to the importance of learning Arabic language, they argued that Standard Colloquial Arabic was important for communicating with Saudi nationals while learning Modern Standard Arabic was essential for understanding Islamic teachings. Interestingly, teachers of Arabic language make similar comments regarding the benefits of using these two types of Arabic language (Dickins and Watson, 2006, p. 111). Nine participants emphasised the importance of learning the host language for communication. These participants said that 'language is a vital tool to communicate with people' (male student from Africa), that 'language is the instrument of communication and understanding' (male student from France), and that 'language is the basis of social and cultural communication' (female student from Nigeria). When speaking about the importance of learning Arabic language per se, participants said that 'learning Colloquial Arabic

facilitates the process of speaking with parties who speak only Arabic' (female student from India) and that 'if you are ignorant of Arabic, you will not be able to communicate with others' (male student from Kenya). Importantly, these participants argued that, for communication purposes, it is especially important to learn Standard Colloquial Arabic.

Regarding the impact of this intercultural experience on their lives, students claimed that this intercultural experience in Saudi Arabia enhanced their tolerance and acceptance and increased their patience. Seven participants claimed that this intercultural experience taught them how to be tolerant and accepting of others, which was also found in past studies (Brown, 2009b, p. 519). Some participants mentioned learning to 'become tolerant of cultural differences' (female student from Niger) and 'stay tolerant in various cultural interactions' (female student from Nigeria). Other students reported that their intercultural experience increased their 'openness to cultures in terms of knowing and accepting the views of others' (female student from Pakistan), as well as their 'curiosity to know other cultures and become tolerant of them' (female student from India). A male student described similar gains using these words: 'the impact is very large because, before I have been exposed to new cultures, I was somehow closed and I could not find space to accept the differences. But after this experience, I think I have become able to see differences and accept them'.

On the fifth interview question, concerning participants' claims of succeeding to utilise these intercultural abilities to integrate, build relationships with other people, and improve their work abilities. Three participants thought that their intercultural abilities aided their integration, which is in line with past studies (Zimmerman, 1995, p. 330). A male student from Africa argued that his recently-developed knowledge of Saudi culture helped him to blend among Saudi nationals, which enhanced his integration into the culture. He said: 'I started to dress like Saudis. I tried to behave like Saudis in order to get along with Saudis. I knew such behaviours would maximise my chances of getting accepted'. Other participants mentioned succeeding to integrate by 'being



aware of cultural differences and learning to speak [Arabic language]' (female student from India), and by 'learning to use all learned [intercultural] abilities to deal successfully in the new society' (male student from Chechnya).

Two participants said that their intercultural abilities were useful for their work. A male student from the United States, who was teaching English to Saudi nationals, made the following comment: 'I learned about Saudis during my stay, which helps me to teach them. I know what they like and what they do not like, which makes me a better teacher'. Similarly, a male student from Kenya said that working among Saudis was challenging at first because he did not understand their behaviour and culture. After developing intercultural abilities, he, however, succeeded to blend into his working environment. He said: 'I have been silent [at work] until I learned and understood people's conditions and nature'.

Lastly, a group of students claimed having utilised their intercultural abilities to build relationships with others, which was also reported in past research (Barker, 2016, p. 27). There were mentions of these abilities being useful for 'accepting others and reconciling with cultural mixing' (female student from Nigeria) and for 'acquiring appropriate behaviours to become friends' (male student from France). A female participant from Pakistan and a male from Kenya also thought that their intercultural abilities aided their ability to signal respect to others, which improved their social relationships.

### **6.3.2. Second Set of Questions**

The primary aim of this set of questions was to understand the relationship between the Big Five personality traits and the development of ICC among international students in Saudi Arabia. Participants who took part in interviews were selected based on their countries of origin and dominant personality traits. These participants could be identified as highly conscientious, extroverted and open to experience. Accordingly, the research sought to explore the extent to

which these participants were truly conscientious, extroverted and open to experience and the extent to which their responses may have been shaped by social desirability bias. The interviews were analysed using the thematic analysis approach.

The interview data were coded and reviewed several times to identify recurring themes. The first theme for further exploration related to participants' involvement in an orientation programme. The need for analysing this theme arose from survey results, which indicated that the participation in an orientation programme did not have affect participants' ICC. This finding conflicts with McRae and Sutin's (2007, p. 24) research and has therefore been identified as an area requiring further investigation. Other themes that were identified in the data referred to participants' perceptions of cultural distance, their levels of conscientiousness and the link between conscientiousness and ICC, their exposure to the host culture, their levels of extroversion and the link between extroversion and ICC and their experience of Arabic diglossia. Each theme will be reviewed separately.

#### **6.3.2.1. Orientation Programme**

Past studies have found that orientation plays a crucial role in familiarising students with their new surroundings, equipping them with insights into their new cultural surroundings and in teaching them about local value orientations, politics and socioeconomics (e.g. Medina-López-Portillo, 2004, p. 193). Given the importance of an orientation programme to students' adjustment, the first phase of this research assessed whether participants attended an orientation programme, and the second phase explored how the programme affected their experiences and ICC. The results from the quantitative investigation stood conflicted with the literature, as they showed that orientation failed to impact any of the four ICC abilities tested. Consequently, in contrast to academic thought and opinion, orientation did not affect the participants or the extent to which they perceived themselves as culturally competent. The central issues emerging from the analysis

of the interview transcripts refer to the distinct lack of formal structure in the orientation process at the Umm Al Qura University in Saudi Arabia.

An interview was conducted with Ismail (pseudonym), the representative of Umm Al Qura University. Ismail has a background in teaching Arabic for non-native speakers, which he felt equipped him with the necessary skills and understanding to interact and communicate with international students. The interview with Ismail lasted approximately 35 minutes; the discussion was recorded and later transcribed. The researcher asked Ismail if he preferred English or Arabic for the purpose of the interview, and he chose Arabic. As a result, the interview was translated before being transcribed for the purpose of the thematic analysis.

Ismail provided a detailed account of how orientation was conducted, indicating an ad-hoc process with no formal guidelines or structure. The institute did not attempt to account for language differences. Ismail highlighted the fact that although the institute knew of the language barriers, it assumed that students would rely on colleagues or peers for help. However, the interviewee acknowledged that ‘the language barrier prevents some students from taking advantage of orientation tours at the beginning of their enrolment’.

It appears that orientation was neither planned nor viewed as a collective task. Each lecturer was individually responsible for their own groups of students. There were references to activities such as sporting events for new students, which often occurred a day or two after the initial induction. However, these events were not compulsory, not always planned and were not offered to female students. Ismail said that ‘there may be some sports activities in the second or third day’. Contrary to Rawjee, Reddy and Maharaj’s (2013, p. 585) recommendation that the duration of orientation plays a crucial role in overcoming cultural differences, it appears that the orientation was spread across two to three days, depending on the number of students, with sporting activities taking place near the end of the programme. The first day centred around the dean’s welcome speech,

and the second was largely related to tours of the university and introductions to classmates and lecturers. This appeared to be the ongoing approach to orientation at the university.

The phenomenon that emerged during the quantitative analysis was not necessarily unique nor the first of its kind. For example, Smith, Paige and Steglitz (2003, p. 99) asserted that despite good intentions, cross-cultural orientation and training programs do not always yield the intended benefits. Other authors (Selmer 2002, p. 48; Parhizgar 2013, p. 274) found that such programmes often have unintended outcomes that can cause more harm than benefit to attendees. Programme designers tend to overlook the factors that contribute to these unintended outcomes, such as the ways in which new cultures are condensed and summarised, and instead focus on trivial and obvious factors. Smith, Paige and Steglitz (2003, p. 111) in particular argue that when it comes to learning about a new culture, it is short-sighted and downright erroneous to assume that this can be done in a day or a short period of time. This remains the most common mistake of orientation programmes (Smith, Paige and Steglitz, 2003, p. 111; Parhizgar, 2013, p. 329).

The structure and formalised process of orientation is linked to several other factors or sub-categories, all of which indicate inadequate contribution to student development. The interview data highlighted how orientation at the institution was not delivered as a comprehensive, all-encompassing program. Rather, it was enacted by separate individuals: the dean of the faculty first welcomes students with a speech upon arrival, and then it is left to the discretion of individual lecturers to induct and orient new students through guided tours and lectures. The dean's speech appeared to be the only mention of life in Saudi Arabia, and it focused on Makkah. Beyond this, the culture of Saudi Arabia does not seem to have been given any mention or consideration. Based on the interview, it seems that orientation was viewed as an exercise in imparting general, casual information to the new learners. On the contrary, Deardorff (2006, pp. 246-247) indicates that orientation should ideally shape attitudes and cover issues such as tolerance and respect; it should

invoke curiosity to engage in intercultural communication. There is little evidence in the data to suggest that the orientation offered to participants achieved these goals.

Some sub-themes emerged that further contextualise the main theme and quantitative and explain why orientation at the university had no impact on ICC. The quantitative analysis revealed that the participants came from a diverse range of backgrounds and cultures. The study sample demographics spanned four continents and many nationalities (Chinese, Indian, Pakistani, Afghan, Kenyan, Nigerian, American, Uzbek and French). The literature reveals that ICC develops among international students faster and more efficiently when the host country has a similar culture as their own country of origin (Wilson, Ward and Fischer, 2013, p. 920). Thus, most individuals who originated from countries where Islam was practised as a major religion indicated that they were familiar with host culture norms, including greetings, dress and behaviour. This may help explain the university's lax approach to orientation.

Issues relating to the lack of attention to personal differences in the previous theme highlight further issues relating to linguistic competence and first language. The dean's address, for example, was delivered in Arabic, though some participants did not speak a single word of Arabic. This particular point was not considered, nor was there any indication that students were offered a translator or other support, such as a mentor. Rather than reducing this to lack of oversight, it could be argued that missing this key feature of an orientation programme was a major failing on the part of the university. This lack of attention to personal and language differences indicates why orientation may have had no impact on ICC.

Deardorff (2006, p. 245) notes that ICC is an evolving process, and thus orientation provides an opportunity for individual attitudes to be shaped. Learners then develop other core competencies, such as the ability to reflect, analyse, empathise and communicate. The development of the latter factors ultimately facilitates effective and successful ICC. However, lack of attention to new learners' personal differences may mean that they are not provided with the necessary foundations

upon which to develop their ICC. In fact, the lack of attention on the part of the university could be viewed as a lack of hospitality. It could cause international students to feel incompetent, particularly if they are new to the country, and it may define the remainder of their experiences. By neglecting this core facet, it seems that the university manifested the previously highlighted ‘dangers’ of orientation programmes (McCaffery, 1986, p. 160).

The emergence of this particular factor highlighted a limitation in the quantitative analysis, as respondents were not asked if the orientation lived up to their expectations. Yet, expectations play a major role in cross-cultural adjustment and effectiveness; failure to meet expectations can negatively affect the remainder of their experiences abroad. Although considered a major factor in the literature when it comes to ICC development, the quantitative findings revealed that orientation did not affect all ICC subscales. The lack of attention to personal and individual differences and its potential impact offer some insight into why this may have been the case in the present research.

The environment in which orientation is delivered tends to directly influence its outcomes and the extent to which participants feel satisfied. McCaffery (1986, p. 170) described a phenomenon of ‘trainee dependency’, wherein cross-cultural training or education aims to leave the participant feeling independent rather than dependent. When the individuals are taught to learn from an ‘expert’ who already possess the necessary knowledge, it implicitly creates a sense of dependence. Indeed, evidence suggested that independence was cultivated, as learners were provided with maps of the institutions, but nothing more was offered, such as materials for exploring cultural nuances and factors or participation in group tasks to encourage problem-solving and thinking. The students then likely became dependent on teachers and peers for support, having learned that orientation was a one-way process where experts imparted information to learners.

The lectures and sessions focused on the university itself rather than the country. This is a potentially major point, particularly considering that the dean’s address only touched upon Saudi

Arabia and Makkah. No other activity provided information about the students' temporary new home and setting. Building upon this, Landis and Bhawuk (2004, p. 378) argue that from an ethical perspective, those in charge of orientation or training are duty-bound to highlight the difficulties and common issues associated with transitioning to a new environment.

During the interview, the only official bodies that were mentioned included the Ministry of Foreign Affairs, Ministry of Education and Ministry of the Interior, in addition to Saudi Embassies. It became apparent that there was no central organising body for orientation, nor did the university regard this to be important. Indeed, the university had a system where intake was rolling as opposed to rigid. For example, students, individuals or groups could arrive at almost any point in the year, often up to one month after a new semester had commenced. Thus, there is some rationale for the university's preference for individual lecturers to handle the orientation process. It also could be inferred that these practices and policies inhibited development of a dedicated orientation department, as it would be uneconomical to run an event for two new students, for example. That said, however, there appears to be no reason for the lack of a dedicated orientation officer. Rather, it seems that new students relied on peers and colleagues to assist them with orienteering.

Interestingly, this lack of cohesion tends to be the root of the problem for cross-cultural orientation (Selmer, 2009, p. 48; Parhizgar, 2013, p. 412) and remains a common reason behind unexpected outcomes of orientation. McCaffery (1986, p. 170) stressed the importance of orientation being approached 'holistically and systematic' for it to be effective and relevant to the needs and expectations of the target audience (Parhizgar, 2013, p. 411; Kraiger and Goldsmith, 2014, p. 99). If examined against the content and instruction provided by Hughes-Weiner (1986, p. 490), the gap between the orientation offered by the institution and established theory widens further. The literature cites the importance of approaching orientation as a specific discipline using established theory and practice. However, the interview revealed no such effort. Furthermore, there was little

evidence for what Hughes-Weiner (1986, p. 490) refers to as 'learning how to learn' in the current orientation programme, which was ad-hoc and designed to familiarise students with the university, not the host country (McAllister and Irvine, 2002, p. 440; Jackson, 2004, p. 188). Hugh-Weiner (1986, p. 491) referenced Kolb's Learning Cycle as a potential starting point or framework to be used when designing orientation programmes. Deardorff (2006, p. 250) also described ICC as a developmental process consisting of distinct stages. Based on this investigation, the findings from the quantitative research became clearer, particularly regarding orientation. The inadequacy of orientation may have made students feel less secure and confident and more anxious, fearful and unfamiliar with their host country and culture. For ICC to develop, empathy must first be cultivated and felt (Deardorff, 2006, p. 252), particularly within an in-country setting as highlighted by Hugh-Weiner (1986, p. 504).

Ismail further explained that the content and nature of the programmes were ultimately left to the discretion of individual lecturers. Again, this individual approach may not be ideal, as most lecturers were expatriates, who may not directly identify with the concerns and needs of international students. Lecturers who themselves transitioned and were once in a similar position as the students may be better qualified. Nonetheless, the reliance upon lecturers meant that each student likely had a different experience of orientation, which also would have been rooted in the bias and experience of the individual rather than reflecting established academic theory and guidelines.

Discussions with the 12 study participants revealed contentious and confusing findings relating to orientation. None viewed orientation as a positive factor. Three were relatively neutral, but the others suggested that it offered little to no value about actual life in Saudi. Abdul Malik offered a balanced insight, stating that he understood why rolling intake at the university made it difficult to gather students for an induction or orientation for their stay in Saudi Arabia. He also offered



solutions to the problem, suggesting that a representative for each student would provide a sense of security and confidence.

Ahmad, a male student from Niger, did not attend orientation. He appeared well-versed with what orientation involved, though he did not disclose how he gained such insight. He said that he would definitely ensure that orientation was more group-oriented to encourage interaction between all new students: 'I would like to add activities that include group work such as games that help students get to know each other more. Because these activities help to remove barriers between students and facilitate their acquaintance.'

#### **6.3.2.2. Cultural Distance**

Intercultural closeness is exhibited by the cultural distance hypothesis when dealing with language, a fundamental pillar of culture and communication, and with ICC and behaviours also (Redmond, 2000, p. 151). The cultural distance hypothesis espouses that greater distances in culture result in a longer learning process in terms of ICC development, understanding and behaviours (Deardorff, 2006, p. 24). Although similarities in language are beyond the scope of the present study, it is worth noting the other variables at play that may positively shape individuals' ICC. From the participant sample, which was entirely Muslim, it was observed that relevant ICC was already ingrained somewhat within most of the sample, not just for language but also for behaviours, ethics and social norms. Many female participants came from majority Muslim countries and cultures, such as Hausa, which is one of the largest ethno-linguistic groups in Africa and majority Muslim, and Niger, whose citizens are mostly members of the Muslim Fulani ethnic group (Green, 2007 p.111; Hour and Rossi, 2010, p. 20).

Although complete segregation of genders was not entirely normal for them, the cultural distance was not pronounced. Participants Wadha, Madawi and Maryam claimed that they saw this as a normal part of a conservative Islamic society. Other female participants, Nouf and Razaz, were from India and the Muslim majority of Pakistan. Married female participants understood and felt

comfortable with norms regarding marriage, communication and guardianship. They claimed to have no social interactions with Saudi men, which was not in keeping with their home cultures, where segregation was not as absolute. Interestingly, however, female participants also stated that they had little to no interaction with Saudi women, finding little to no affinity with them, regardless of the close cultural distance. Most female participants said that they would have liked to have interactions with Saudi women, at least from an educational perspective, but were not interested in interactions with Saudi men, for undisclosed reasons (other than Wadha, who claimed that Saudi men were ‘not desirable due to their habits’). It is prudent to note that the results of this study refute those of Redmond (2000, p. 156), who found that women hold greater ICC than men. Female participants in this study struggled with the cultural context and development of ICC.

It seemed that close cultural distance aided in the development of ICC among participants due to their Islamic connection. Though perhaps not completely abnormal, many parts of social interaction and norms were unfamiliar to the female participants of the study. Thus, the cultural distance likely aided in the development of ICC (Redmond, 2000, p. 155). Razaz from India and Madawi from Nigeria, who both scored highly on conscientiousness, appeared to be most understanding of cultural differences between their home culture and that of Saudi Arabia. They also had adequate knowledge of Arabic before arriving in Saudi Arabia. Conscientiousness thus may have been the key driving factor in the development and nurture of ICC. Nigerian female participants Mariyam and Wadha identified as extroverts, and their average test scores support the fact that extroverted female participants struggled to develop ICC within the cultural context. Moreover, neither spoke Modern Standard Arabic before arriving in Saudi Arabia.

Similar to female participants, male participants leveraged the close cultural distance to develop ICC relevant to the social and cultural contexts. However, participants such as Khalid from Chechnya in Russia was perplexed by the gender segregation and lack of interaction with women

and even more confused by the culture of face-veiling. Although Muslim cultural distance facilitated ICC between participants and host culture, issues like these hindered development of ICC. However, Khalid also identified as an extrovert and stated that his foremost personality trait was openness.

The other male participants struggled to develop ICC within the Saudi cultural context, perhaps because of the close cultural distance between Muslim male cultures and that of Saudi Arabia, regardless of differences in gender segregation. For example, Abdul Malik, who converted to Islam, appeared to have developed and nurtured the most ICC and held the second-highest test score. As a convert to Islam, the cultural distance between Abdul Malik and his host environment could be assumed to be extremely close; converts tend to immerse themselves in Islamic doctrine and lifestyle, with little attention paid to politics and dogmatic factors (Zebiri, 2014, p. 310). In addition, converts tend not to be impeded by Muslim cultures with different Islamic social conventions, as they have not grown up accustomed to certain interpretations of Islamic law and social convention (Lo, 2005, p. 118; Zebiri, 2014, p. 302). Perhaps these reasons explain why Abdul Malik did not encounter the same obstacles as the other participants in acquiring ICC. Furthermore, Abdul Malik identified as conscientious, in keeping with the other high test scores as part of the sample. Although close cultural distance facilitated the development of ICC across all participants, including men, conscientiousness seems to have been the key driver, as all other male participants who identified differently did not exhibit higher test scores or ICC than either male or female conscientious participants.

#### **6.3.2.3. Conscientiousness**

The qualitative aspect of the research sought to build upon the findings from the quantitative data, particularly the limitations that may have arisen regarding self-reporting and any associated bias. A significant number of respondents from the first phase of the study identified as conscientious;

the qualitative study sought to build upon this by specifically investigating those who scored higher in conscientiousness. To this extent, four participants (Abdul Malik, Bassim, Madawi and Razaz) identified as conscientious were interviewed. The interviews aimed to determine the extent to which these participants actually were conscientious, as opposed to simply having skewed perceptions of their characters. Thus, the researcher asked participants to provide examples of conscientious behaviour in addition to asking about their personal values and value systems.

Interestingly, participants strongly identified as conscientious and provided evidence that they were responsible, timely and dutiful. They spoke in-depth of their personal values, including kindness, responsibility and, more important, discipline. Additionally, the participants provided evidence of patience, understanding, kindness and value for human beings in general, and they stated that their values and ideals were strongly, if not wholly, shaped by their religion. These individuals tended to be more open-minded about the cultural practices of others and had schedules dedicated to family, study, relationships and religion. One participant, Abdul Malik from the United States, stated that he aimed to complete the Qur'an every week and recite five parts on a daily basis. He said that he would not return home unless he finished these tasks.

The participants' adherence to religion was important in determining the extent of their conscientiousness. Saroglou (2002, p. 15), Gebauer, et al. (2014, p. 1074) and Duriez, et al. (2004, p. 175) noted that religiosity influences conscientiousness, as often those who are religious and value religious guidelines also tend to be conscientious and disciplined. Othman, Hamzah and Hashim (2014, p. 117) further claimed that conscientiousness is a perceptible personality trait in Islam. Here, the participants who were conscientious provided evidence, though unprompted, which signalled their devotion to their faith and how it guided their actions and worldviews. For example, when Abdul Malik said, 'from an Islamic viewpoint, it [segregation] is something good but culturally no', it supported Othman, Hamzah and Hashim's (2014, p. 117) claim.

It was unclear if the highly conscientious respondents withheld information to avoid speaking ill of their host country. When asked about the challenges encountered relating to cultural practices and taboos, the participants often spoke in loose terms, seldom spending much time on this particular area. It became obvious that the more conscientious respondents encountered certain challenges, however, and they were reluctant to admit or reveal the full extent of them. A common theme emerged, related to the structure of Saudi society and the associated difficulties: participants were unaccustomed to the restrictions on communication. Amongst those participants who scored very highly, some felt that living arrangements inhibited their ability to develop conversational and colloquial Arabic, which was a consistent theme regardless of the individual's personality traits.

Conscientiousness and empathy are closely tied. With this particular personality dimension, individuals closely identify with those around them and are seldom able to critique or offer judgement. Instead, acceptance and understanding is practised (Kashima and Loh, 2006, p. 471; van Oudenhoven and van der Zee, 2002, p. 679; Popescu and Borca, 2014, p. 150).

#### **6.3.2.4. Host Culture Contact**

Interestingly, for participants such as Abdul Malik, a male participant from the United States who had studied in Saudi Arabia for the past six years, Engel and Engel's (2003, p. 8) assertion that length of residence in the host country impacts ICC positively did not hold any truth. The participant suggested that the desire to immerse oneself into a given culture ultimately affected how well that person learns a language, communicates and thus attains intercultural success. However, the findings support Engel and Engel's (2003, p. 8) viewpoint that longer stays generate more exposure and thus more comfort with the language. As a means of supporting his assertion, the participant Abdul Malik stated that

When you have American soldiers, if they are occupying a country, for the most part, they are going to be in that country for a long time. But what you find is that they come back not

knowing anything from the language, not knowing anything from the people. They are there to do a job, and they don't care to find out traditional food nor to involve themselves on the music or the host culture in general.

For Abdul Malik, simply being exposed to culture is not enough. Despite merit to his answer, it could be argued that the students learning Arabic all arrived in Saudi Arabia with a specific purpose and therefore possessed a drive and motivation that soldiers do not. Nonetheless, this remained an important factor for the respondent. Thus, it can be inferred that the driving force behind acquiring ICC is the quality not the quantity of contact with hosts.

Zakariya spent a considerable amount of time reading instead of interacting, so he was seldom surrounded by native Arabic speakers. Interestingly, the quantitative findings revealed that living arrangements had little to no significance in Arabic proficiency. However, participants did mention that living arrangements affected them, particularly those who lived with their spouses in private accommodations. In line with Gutierrez, et al.'s (2009, p. 20) finding, these participants stated that it was somewhat difficult to form lasting friendships in Saudi Arabia. Other participants felt that it was easier for female students to integrate with locals. The women countered this view, though, nothing that they also struggled to develop strong friendships and interact with Saudi girls. One participant inferred that female students were reluctant to interact with Saudi Arabian men, as 'this is not desirable because of their habits' (Wadha). Thus, lack of engagement with locals prevented them from developing ICC and increasing their self-esteem (Havril, 2015, p. 555; Karolak and Guta, 2014, p. 42). The interview results underscore the importance of providing international students studying in Arab countries with reliable evidence on how to successfully engage in intercultural communication (Suchan, 2014, p. 2).

Wadha, a female from Nigeria, lived with her family and had inadequate knowledge of Arabic. She was honest in her self-assessment of her knowledge of the culture in Saudi Arabia. Wadha revealed an insatiable appetite for learning about new cultures. Yet, she said that during her four and a half years in Saudi Arabia, she was still only able to communicate in a limited capacity in

Arabic. Wadha felt that during her stay, her attitude, skills and awareness of the culture had developed considerably, but her knowledge 'has not developed to the extent that [I] can achieve my ambition due to the environment'. She attributed her 'lack of engagement and involvement in Saudi society' to the societal structure and culture of Saudi Arabia: 'Because it is a conservative society, I could not establish relations with the Saudis'.

Other participants felt that intercultural knowledge greatly impacted ICC and expressed frustration about the lack of contact with locals in interpersonal settings. Sulaiman, for example, offered interesting insights that one cannot simply learn things from a book. To develop cultural knowledge, it is crucial that one sits and observes and socialises with locals. Asking questions and inquisitiveness, in general, was regarded as another important factor, though respondents did not always feel comfortable asking questions. In keeping with Stier (2006, p. 6), Bassim, a male student from Nigeria, stressed the importance of acquiring knowledge of cultural peculiarities through interaction with locals:

First of all, I would like to say that knowledge comes in the first rank to be interculturally successful. Through interacting and engaging with Saudi people, I could develop this ability, and it makes it easier for me to understand and be aware of the cultural aspects, the dos and the don'ts of the Saudi culture. This also helps me a lot in knowing the society's regulations when it comes to, for example, inviting somebody. It happened with me that I went to a café with a Saudi friend. In the end, there was an insistence that he would pay the bill. I was wondering why that insistence is. I become aware it is a kind of culture. Culture of generosity, let's say. I am aware through interacting with Saudis this is part of their culture. They want to be hospitable to everybody. So, the way I develop my ability and achieve intercultural success is to engage myself. And this engagement made me aware of the cultural aspects of Saudi society.

Similar sentiments were expressed by other participants, who subtly touched upon gender when discussing cultural knowledge and the barriers to such development within the context. They were hesitant to be as forthright as Wadha in their assertions and therefore attempted to be more diplomatic. Face-covering of women in Saudi was viewed as being somewhat difficult to navigate even among Muslim students with strong Islamic values. As Khalid mentioned, women in

Chechnya were not expected to cover their faces. Even more interesting, they talked about how Arabic itself is a gendered language and how discourse differed considerably depending on which gender with whom one conversed. Abdul Malik, a male from the United States, offered the following:

Because Arabic is a gender-specific language, it has male pronouns and female pronouns. And the end of verbs changes based on the gender of the subject. If you don't practice with the opposite sex, how do you speak to a woman? It makes it very hard to communicate. I would make grammatical mistakes. I feel the segregation benefits outweigh its harms. They [women] are half the world. They are part of the culture. You segregate half of the culture. From an Islamic viewpoint, it is something good but culturally no.

Abdul Malik spoke with diplomacy and fairness. He posed important questions that underscore how some aspects of the culture inhibited ICC, as they completely isolated him from members of the opposite sex. Wadha also noted that language is a central tenet of culture and that communication is necessary in every facet of society if one is to flourish. Although participants who scored high on conscientiousness were diplomatic, they admitted to being cautious when navigating Saudi culture, as they were reluctant to offend their hosts.

#### **6.3.2.5. Arabic Diglossia**

As a diglossic language, Arabic poses certain difficulties for international students (Gutierrez, et al., 2009, p. 20). Standard Colloquial Arabic is the conversational form, and Modern Standard Arabic is the formal variant used in newspapers and other literary forms. Modern Standard Arabic also is generally spoken in the media, such as TV. A subtle theme emerged in the opinions of respondents after interrogating the data. Palmer (2013, p. 68) finds that most international students in Syria, Morocco, Egypt and Jordan do not spend sufficient time practising the two language varieties. Thus, the diglossic nature of Arabic did affect how ICC developed, as the respondents' narratives indicated that it hindered their interactions with the local Saudis. Abdul Malik, Sualiman and Khalid attributed their desire to interact and 'sit' with locals, which would help



develop their language proficiency. For Abdul Malik in particular, this was integral to his own development, as he revealed that he had initially struggled to communicate with locals in informal settings, because they do not want to speak in Modern Standard Arabic. Thus, as previously mentioned, the diglossic nature of Arabic may hinder development of ICC and language proficiency regardless of personality trait. Also, few studies examining ICC have investigated a setting with a diglossic language, such as Arabic or Greek.

#### **6.3.2.6. Perceptions of Extroversion**

The findings of the surveys suggested that extroversion had no particular impact on acquiring ICC. This finding does not align with academic consensus, as extroversion tends to be regarded as a factor that allows individuals to flourish in social settings. It also is associated with ICC development, as both Goldberg (1993, p. 29) and McRae and Sutin (2007, p. 24) noted that extroversion dictates better social competence. Both studies used empirical research to substantiate their claims, indicating that those with higher cultural competence also scored high on cultural adaptation. Interestingly and perhaps more pertinent to the present study is the definition of extroversion. Both Hogan (2005, p. 331) and Connolly and Viswesvaran, (2000, p. 265) argued that extroversion is largely related to energy and how one maintains energy levels.

Often, those who identify as extroverts enjoy being around people and the centre of attention; they are assertive and talkative (Kerry, 2018, p. 11). Eysenck (1992, p. 133) and Wolf and Ackerman (2005, p. 531), however, argued that extroversion is beneficial only in early human development, particularly primary and secondary school years. The authors' centred their discussions of extroversions within the context of academia and argued that openness to experience rather than extroversion is a greater indicator of social competence and success. For Eysenck (1992, p. 133), talkativeness, warmth, assertiveness and friendliness, factors which define extroversion, are seldom needed for developing ICC. These factors may help create interpersonal relationships and

place people at ease, but ICC development is most commonly associated with willingness to learn, flexibility and insightfulness.

On this basis, a common theme that emerged from the data was the tendency to equate characteristics associated with openness to experience to extroversion instead. In this regard, an individual can be both open and extroverted, hence it would be likely that these two features would overlap. However, as a means of maintaining clarity and integrity of the research data, the participants were given the opportunity to outline why they described themselves as extroverted. In this respect, participants who described themselves as extroverted seldom described tendencies that were otherwise associated with extroversion. It would seem that the associating the ability to make friends quickly with extroversion may be true, but extroversion is not the defining factor. As Fatmah, a woman from India, said, 'I think I am an extrovert, legible and flexible person to deal with, because I am adapted to the culture I live in'. Nouf, a woman from Pakistan, also identified as an extrovert:

I am extroverted because I have made friends within a short period of time. I also have curiosity to learn and to know others, as well as my love for talking to others about their cultures and tendencies and this led to my personal acquisition as well as wise handling of people and not rushing to make decisions and not to give prejudices to others without good knowledge.

Zakariya, a man from Kenya, said 'I am an extroverted and I like to meet people with a shy, smiling and calm face. I think this is a good thing. I am open to others'. Zakariya also scored highest in language proficiency, despite suggesting he was not 'very good at it'. Perhaps he was being modest in his self-assessment, or perhaps he genuinely believed that he was not competent. Zakariya added that he initially communicated in Modern Standard Arabic with locals, but they instantly identified him as an international student. This made him feel shy and had a lasting impact on him:

Yes, it has affected so much that now that I feel shy if talking to anybody. Sometimes, for example, if I wanted to ride a taxi, I feel shy before I were able to speak to the driver,

because he will laugh when hearing my Arabic language. All these situations forced me to learn slang Arabic.

Despite referring to himself as an extrovert, Zakariya used the word 'open' approximately eight times throughout his interview. This was especially interesting, given that the survey phase of the study revealed that conscientiousness and openness to experience had a stronger relationship with ICC than extroversion. Extroverted participants described themselves as talkative and preferring to speak rather than listen. That said, talkativeness and being quick to form friendships were perhaps the only two features that hinted at extroversion amongst the participants. Rather, it seemed that the phenomenon highlighted by Eysenck (1992, p. 133) materialised, as participants were unable to differentiate between extroversion and openness to experience. Answers relating to new experiences and how they were received and met by the participants confirmed this observation.

Costa and McCrae (1992a, p. 653) argued that those who score highly on openness to experience tend to be cultured, open to change and intellectually curious. The present study asked interviewees to provide examples of when dealt with cultural challenges. High openness was associated with the ability to adeptly handle difficult or complex situations. For participants who regarded themselves as open or who emphasised openness during their interviews, specifically Zakariya and Ahmad, complex situations were met calmly and with patience, as highlighted several times by Ahmad in particular.

Both participants spoke diplomatically, often weighed the negatives and positives of every situation and offered diplomatic and balanced responses. In this respect, Ahmad offered further insight into the culture shocks and challenges he encountered when arriving in Saudi Arabia. For example, he noted the cultural tendency to procrastinate in Saudi Arabia. Administratively, this created challenges for students who often required signatures and stamps. Moreover, securing access to these individuals was often a lengthy and frustrating process. Yet, rather than complaining, Ahmad exercised patience and stated that Saudi Arabia ultimately taught him to

develop patience, which he did not have prior to leaving his home. He provided insight into the nature of participants who scored highly on this dimension, as they tend to exhibit patience, understanding and acceptance of situations, rather than confrontation or desire to make drastic change.

#### **6.4. Summary**

The majority of interview participants thought that intercultural knowledge is most important for intercultural success. Many students claimed that they have first developed intercultural knowledge, which then aided their development of other ICC abilities, and that their abilities were more thoroughly developed via immersion in Saudi culture. Participants further contended that learning Standard Colloquial Arabic is essential for communicating with Saudi people while learning Modern Standard Arabic helps in understanding Islamic teachings. When reflecting on their overall international experience, students argued that this experience increased their tolerance and acceptance. They also mentioned utilising their intercultural abilities to integrate, build relationships with others and improve their work abilities.

Interestingly, for most of the questionnaire respondents, living arrangements did not appear to have any significance for language proficiency, although several expressed dismay at having limited contact and access to locals. Private and student accommodations, in particular, were viewed as inhibitors to developing fluency in Arabic and ICC in general. Spending time with local Saudis was viewed as invaluable for ICC, as it allowed them to feel and experience the culture first-hand. The lack of exposure was likened by one participant to looking at pictures of pizza and pasta in a recipe book: it was not enough to gain an appreciation of how the foods actually taste. For this participant, being around locals was the heart of ICC development. Interestingly, this same participant described himself as an extrovert, and his supporting statements and explanations suggested that his own assessment of his personality was indeed fitting.

For all three personality traits, living arrangements proved challenging, as interaction with locals was viewed as crucial. A lack of contact with locals meant that some participants resorted to making small talk with taxi drivers and shop owners. However, these limited interactions deeply impacted participants, leaving them feeling somewhat ashamed and conscious of their actions, as they were identified as ‘other’ or foreigners. It appeared that the participants would have preferred to socialise with their peers.

These findings tie into the findings that emerged during the first phase of the research. During the questionnaires, most respondents scored highly when asked to rate their intercultural knowledge, but on questions that indirectly gauged intercultural knowledge and local customs in Saudi, respondents scored poorly. The questionnaire findings offered little clarity as to why this may be the case, particularly as participants felt that their living arrangements played no part in ICC development. The qualitative findings, however, showed that participants as a whole expressed were dismayed and disappointed at the lack of access they had to locals and other Saudi students. Participants noted that they were treated with the utmost respect and dignity by local Saudis, but they found it difficult to socialise with locals. For some of the female participants, gender segregation was not the only preventative factor. Some mentioned that some undesirable habits among the local men had soured their own experiences somewhat. Al Hasnan (2015, p. v) also cited some serious socio-cultural and religious constraints to the development of ICC in Saudi Arabia.

In addition to aspects of the local Saudi population and their apparent lack of accessibility, the personality traits of the participants also factored into their experience. The questionnaires revealed that ICC was not high amongst the sample, although participants perceived themselves as highly competent. The interviews investigated this issue, especially given that the research was primarily concerned with personality traits and how they shape ICC. As such, the interviews

identified specific techniques used by the participants to develop their ICC and how they discovered the norms and taboos of the local culture in Saudi Arabia.

The results were insightful, showing that participants who identified most commonly as open or extroverted preferred speaking as opposed to listening. In fact, participants who identified as being conscientious tended to listen. For most, including those who scored highly on Arabic tests, speaking was their preferred approach in social settings. Some participants suggested that listening did not offer many benefits and preferred speaking to develop better interpersonal relationships and friendships in general. These participants did not necessarily view listening as a favourable trait in social settings.

## **7. Conclusion**

This chapter summarises the gaps in the literature this research sought to reduce and the research questions. It also summarises the key results obtained from the surveys and interviews. Additionally, this chapter identifies the original contributions of this research, reflects on its limitations and makes recommendations for future research.

### **7.1. Key Findings**

The primary aim of this thesis was to examine the relationship between personality traits and ICC among international students in Saudi Arabia. This study investigated this association in the middle of the school year (time 1) and after students spent two years in the new country (time 2). My research was motivated by two significant gaps in the literature. First, although some studies have investigated factors that affect international students' ICC development, such as cultural values and culture shock (Bhugra, 2015, p. 90; Wang, 2014, p. 24), there is a lack of studies that have explored whether personality traits enhance the success or failure of ICC development and how far they influence effective communication. Second, although several studies have investigated ICC among Saudi nationals studying abroad (Alqahtani, 2015, p. ii; Obaid, 2015, p. 695), there is a significant gap in the research on ICC among international students in Saudi Arabia. The primary research questions that guided this study were as follows:

1. Can specific personality traits of international students enhance the success (or failure) of ICC development?
2. How far can specific personality traits influence the ability of international students to communicate effectively in an intercultural context?

Drawing on key scholarship in the field, I expected that students who scored low on neuroticism and high on extroversion, openness, agreeableness and conscientiousness would show improved

ICC (i.e. knowledge, attitude, awareness and skills). This prediction was based on the broader literature linking the Big Five personality traits to successful intercultural adaptation and intercultural effectiveness (Carpara, et al., 2010, p. 41; van der Zee and van Oudenhoven, 2013, p. 931; Wilson, Ward and Fischer, 2013, p. 279). I tested this prediction by conducting a series of linear regression analyses, which sought to estimate if there is a relationship between Big Five personality traits and ICC abilities, as well as whether students' levels of these traits predicted their ICC abilities at two assessment points. When these analyses produced significant results, it was concluded that a given trait is crucial for students' possession of specific ICC abilities or, said differently, that a given trait enhanced the development of students' ICC abilities. In the following sections, I draw main conclusions from the findings of the current study.

The existing literature shows that emotionally stable (i.e., non-neurotic) students are likely to become interculturally competent after moving to a new cultural context, because they can overcome intercultural stress (Swangler and La Rae, 2015, p. 535). Previous research also finds that students who are open to experience are willing to approach and negotiate cultural differences between themselves and students from different cultures (Swangler and Jome, 2015, p. 530). From the findings obtained in this research, my research comes to the conclusion that after moving to a new culture and after spending some time in it, only two personality traits tend to enhance the success of ICC development: emotional stability (i.e. low neuroticism) and high openness to experience.

In contradiction to Poyrazli, Thukral and Duru's (2010, p. 27) study which found that extroverted individuals adapt in a new cultural context because they tend to develop cross-cultural friendships, the present study revealed that high extroversion did not enhance the development of ICC. To examine this result further, this study found that low extroversion predicted ICC attitude. Thus, introverted individuals may have more positive attitude towards individuals from different cultures because they can associate with and understand other people more easily. Although they



do not tend to socialise with a high number of individuals, they are able to maintain high-quality friendships and tend to form stronger emotional bonds than extroverted individuals (Harris and Vazire, 2016, p. 667). Thus, it is possible that low extroverted, rather than high extroverted individuals, are more likely to have positive attitudes towards intercultural communication after spending some time in the new cultural environment. This study also found that the knowledge and skills subscales were predicted by openness to experience. Once this is established and international students acquire these abilities, extroversion can help broaden the knowledge of essential norms and taboos of the host culture (e.g., greetings, dress, behaviours, etc.) on one hand and the skills of adjusting their behaviour, dress, etc., as appropriate, to avoid offending hosts on the other hand.

Moreover, in contrast to Carpara, et al. (2010, p. 41) and Novikova and Novikova (2013, p. 629) who both reported that agreeable individuals tend to be friendly towards members of different cultures which aids their intercultural integration, this research found that personality trait of agreeableness did not predict ICC at either of the two assessments points. It could, therefore, be concluded that the degree to which international students tend to be kind, sympathetic, and considerate did not affect their intercultural knowledge, attitudes, awareness, and skills after spending some time in the new culture. Once again, it is possible that, even though they were friendly, agreeable students did not succeed to integrate into the Saudi context, which could have occurred because of the lack of contact as stated by an interviewee (i.e. Bassim) who reported that ICC could be acquired through the interaction with hosts.

Concerning conscientiousness, past studies revealed that conscientious students tend to adapt in a new cultural context because they are organised and dutiful and succeed in overcoming various academic struggles that could impede their adaptation (Wilson, Ward and Fischer, 2013, p. 279). Since these students tend to adapt quickly, it was predicted that they would have well-developed ICC abilities. This study, however, demonstrated that conscientiousness predicted only higher

intercultural knowledge and skills, but only at time 1. This finding suggests that conscientious students tended to be more knowledgeable about Saudi culture and tended to possess more intercultural skills in the new cultural setting. It can initially be argued that conscientiousness affected intercultural knowledge and skills but not attitudes and awareness because only the two former abilities can be developed via hard and meticulous work. Conscientious students could have experienced problems to integrate, which could explain why conscientiousness did not predict any ICC abilities at time 2. The notion that conscientious students could have experienced adaptation difficulties was confirmed in interviews. The interviews revealed that highly conscientiousness students (referred to under the pseudonym names Abdul Malik, Madawi, and Razaz) tended to underreport their intercultural challenges and avoid providing negative feedback about the Saudi context. An exploration of their perspectives thus revealed that, although they did not want to admit experiencing difficulties, conscientious did experience problem with integrating.

Other variables, which could have shaped the participants' ICC development and had as such to be taken into account, include demographic characteristics and contextual factors. By comparing group means, the survey phase revealed that neither gender nor age affected ICC. The non-significant effect of gender refutes past studies showing that women tend to be better intercultural communicators than men (Martin and Nakayama, 2013, p. 123). This research did not recruit a sufficiently high number of female participants, primarily because female international students in Saudi Arabia must be accompanied by a male guardian. Last, female participants in semi-structured interviews noted that they found it challenging to interact with Saudi men and women, primarily because of the pronounced gender disparity in the Islamic context, which also may explain why this study found no differences in ICC abilities between female and male students. Thus, the lack of significant gender differences in ICC, therefore, could be attributed to a limitation of this study. Future research should overcome this limitation by seeking to attract more

female participants, which could be done by visiting their accommodation to administer them the questionnaire face-to-face. This approach would overcome the limitation of females not being able to participate because they cannot freely walk around the campus.

In regard to participants' country of origin, this study found significant differences in ICC between students who came to Saudi Arabia from different cultures, but only at time 1. In general, students from countries with the highest adoption of Islamic norms (i.e., Pakistan, Afghanistan and Uzbekistan) had higher levels of ICC than students from less Islamic-oriented cultures (i.e., Nigeria and Kenya) and non-Islamic cultures (i.e., China, France, and the United States). Interviews further revealed that participants who perceived a lower cultural distance between their own and Saudi cultures found it easier to communicate in the host culture setting because of shared Islamic cultural norms. This finding supports the idea that students acquire ICC in a particular context more rapidly when their country of origin is similar to the host culture in terms of cultural values, climate and language (Wilson, Ward and Fischer, 2013, p. 902).

In terms of the contextual variables, participants who participated in semi-structured interviews claimed that their ICC depended more on the Saudi cultural context than on their personality traits. This association between contextual factors and ICC was initially investigated in the survey phase. The results revealed that a longer stay in Saudi Arabia was linked to higher ICC, which suggests that students who reside in the country for longer tended to be more knowledgeable and positive towards the Saudi culture and more likely to communicate effectively in an international context. This effect was evident only at time 1, however, presumably because different participants stayed in Saudi Arabia for similar lengths of time at time 2. Still, it should be noted that, in semi-structured interviews, participants emphasised that the length of stay in Saudi Arabia was not the most critical determinant of their ICC. Instead, participants believed that ICC was best developed by the desire to immerse themselves in a host culture. They stressed the importance of quality over quantity of host culture contact. This finding aligns with those of Fantini (2009, p. 45) and

Holliday (2017, p. 211) that a thorough immersion in a host culture is a significant predictor of students' ICC.

Another result of this study also suggested that the type of housing did not affect participants' ICC. This result is surprising, but it might correlate with the fact that my research did not investigate how exactly international students spend their time within their 'homes', it did predict that students who were housed with Saudi students would have higher ICC than students who stayed with other international students and their families. However, it is possible that students who stayed with Saudi peers did not communicate a lot with them, which could explain the lack of significant associations between the type of housing and all four ICC abilities. Future research should confirm these explanations, perhaps by exploring whether ICC is significantly different between international students who spend their time with other international students and their families versus with host-country locals.

Arabic language oral proficiency among participants consistently increased their intercultural knowledge and skills, but not their attitude and awareness regardless of when participants were assessed. Specifically, in the interviews, participants frequently underreported or overreported their oral language proficiency, as evident in a discrepancy between their self-reports and their actual Arabic language test scores. This finding illustrates the limitations of using self-reports, which often result in an under- or over-estimation of assessed variables (Gerlad and George, 2010, p. 182) and further explains why the reported levels of oral proficiency were not associated with ICC. Still, in the qualitative investigation, participants reported that the Arabic language's diglossic nature hindered their ICC development. The complexity of the language seemed to reduce participants' ICC.

Within the survey part of the research, it was further found that conducting a cross-cultural research project or meeting a cultural advisor did not affect students' ICC. Results also suggested that participants' volunteering experiences enhanced their intercultural knowledge and skills, but

only at time 1. This finding suggests that volunteering did not necessarily foster communication with the locals, which is necessary for developing intercultural attitudes, awareness and skills. The results suggest that cultural advisors and conducting cross-cultural projects at Umm Al Qura University are not sufficiently focused on enhancing international students' ICC. Also, volunteering may not provide sufficient exposure to the Saudi culture and local residents to increase students' attitudes and awareness.

The survey results revealed that participating in an orientation programme did not affect participants' ICC. Specifically, an interview with a representative of Umm Al Qura University revealed that the orientation programme lacks formal structure and does not account for students' language differences, primarily because the programme is conducted in Arabic. The programme was not perceived as a collective task. The interviewee also noted that the orientation programme is short and does not introduce international students to the Saudi culture but instead consists of guided tours and lectures in Arabic and sporting events, which are not culture-oriented. Students who participated in interviews similarly noted that the orientation programme offered little value for their ICC development. From this finding, it can be concluded that the orientation at the university did not deliver a comprehensive programme and thus was not useful for enhancing international students' ICC.

In summary, this research made original contributions to the field of ICC. First, it identified a link between personality traits and ICC via the following conclusions. In keeping with Wilson, Ward and Fischer's (2013, p. 900) findings, low neuroticism and high openness to experience were vitally important for enhancing international students' ICC, regardless of the time of assessment. The trait of extroversion did not foster the development of ICC in contrast to the results of Poyrazli, Thukral and Duru (2010, p. 27). Additionally, the traits of agreeableness and conscientiousness did not predict ICC opposed to the broader literature (Novikova and Novikova, 2013, p. 629; Oz, 2014, p. 1482). Second, it showed how demographic characteristics and

contextual factors of international students in Saudi Arabia affect their ICC. Specifically, it revealed no association between participants' gender and age on one hand and ICC on the other. Students from countries that were culturally similar to Saudi Arabia had most developed ICC abilities. Out of the assessed contextual factors, only length of stay in Saudi Arabia at time 1 was associated with all four ICC abilities. Students' Arabic language proficiency increased only their intercultural knowledge and skills. Meeting a cultural advisor and conducting a cross-cultural research project did not affect ICC development, and volunteering enhanced only intercultural knowledge and skills. The last conclusion of this research is that the orientation programme at Umm Al Qura University was not beneficial for international students' ICC, primarily because the programme was not sufficiently developed.

## **7.2. Limitations and Recommendations for Future Research**

The limitations of this research help propose directions for future studies. The first limitation concerns the sample size. This study had a relatively small sample size of fewer than 100 participants. Such an issue was particularly dominant in the second phase of the survey research, when participants were re-assessed after having stayed in Saudi Arabia for two years. Out of 93 participants who completed the survey at time 1, only 53 took part at time 2, which signals a significant attrition rate. To detect more aspects that might be key for ICC development in a broader population (Cohen, 2002, p. 98) and to enhance therefore the generalizability of the results (Johnson, 2007, p. 21) it would be helpful to have larger follow-up studies.

Another limitation of this study concerns the conducted statistical analyses. Although the researcher assessed the relationship between the Big Five personality traits and ICC (i.e. knowledge, attitude, awareness and skills), as well as demographic (i.e. age, gender and country of origin) and contextual variables (i.e. length of stay, type of housing, language speaking proficiency, meeting a cultural advisor, volunteering, attending an orientation programme and conducting a cross-cultural research project), these analyses were not fully linked. Field (2013, p.

321) recommends conducting regression analyses with specific variables (e.g. personality traits) as predictor variables, other variables (e.g. ICC abilities) as outcome variables, and a third set of variables (e.g. demographic characteristics and contextual factors) as control variables. Such an analysis can help establish whether predictor variables affect outcome variables after controlling for control variables. The current researcher chose not to combine these analyses because, out of demographic characteristics, only country of origin did affect ICC and two contextual variables (e.g. length of stay, conducting cross-cultural research projects) affected ICC only at time 1. It would have been useful to explore whether personality traits exerted influence on ICC abilities after controlling for these contextual variables.

The third relevant limitation of this research is that it did not measure international students' intercultural adjustment. When making predictions about the relationship between personality traits and various ICC abilities, this research was based on the link between personality traits and intercultural adjustment. For instance, it was argued that conscientious, open, extroverted and emotionally stable individuals are expected to have well-developed ICC abilities, because they find it easier to adjust to a new cultural context, which fosters their ICC development (Lee and Ciftci, 2015, p. 101; Swangler and Jome, 2015, p. 530; Wilson, Ward and Fischer, 2013, p. 903; Poyrazli, Thukral and Duru, 2010, p. 27). If this study included more explicitly the measure of cultural adjustment, it would have been possible to assess more accurately in how far such adjustments mediate or help explain the relationship between personality traits and ICC, therefore providing more clarity to the obtained findings. Without such an assessment, it was possible only to make assumptions regarding why individuals with specific personality traits have higher ICC.

To overcome the limitations of this research, future researchers should engage in three research steps. Initially, they should ensure a higher sample size and lower attrition rate, which would increase the generalizability of their findings. To enhance generalizability, future research also could replicate the present study in a sample of international students who live in other countries

apart from Saudi Arabia. A further recommendation is to control for the effects of demographic and contextual factors when exploring how personality traits affect ICC development. Such an exploration could prove useful in identifying how much personality traits influence ICC after accounting for other factors that are likely to affect ICC.

Future research could also measure students' cultural adjustment to establish whether personality traits affect ICC because they help international students to adjust to a new cultural context. This kind of investigation would help explain the results obtained in the present research. Hopefully, future studies will seek to explore the effects that were the focus of this study and identify students who are most and least likely to develop ICC. Such investigations could help determine which students should be provided with extra support.



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## **Appendices**

Table 5.15 Frequencies, percentages, means and standard deviations of knowledge statements, time 1

No.	Rank	Statements	Degree of Approval												Mean	SD
			Extremely High		High		Neutral		Weak		Extremely Weak		Not At All			
			F	%	F	%	F	%	F	%			F	%		
1	3	I could cite a definition of culture and describe its components and complexities.	20	21.1	68	71.5	2	2.1	1	1.1	2	2.1	2	2.1	4.02	.409
2	1	I knew the essential norms and taboos of the host culture (e.g. greetings, dress, behaviours etc.).	79	83.2	12	12.5	1	1.1	2	2.1	1	1.1	0	0	4.74	.445
3	6	I recognised signs of culture stress and some strategies for overcoming it.	9	9.5	75	78.9	5	5.2	1	1.1	2	2.1	3	3.2	3.83	.561
4	5	I could contrast important aspects of the host language and culture with my own.	8	8.4	80	84.2	2	2.1	1	1.1	2	2.1	2	2.1	3.89	.601
5	7	I knew some techniques to aid my learning of the host language and culture.	1	1.1	37	38.9	38	40	10	10.5	5	5.3	4	4.2	3.07	.902
6	4	I could contrast my own behaviours with those of my hosts in important areas (e.g. social interactions, basic routines, time orientation etc.)	17	17.9	73	76.8	0	0	0	0	2	2.1	3	3.2	3.98	1.11

7	11	I could cite important historical and socio-political factors that shape my own culture and the host culture.	3	3.2	14	14.7	22	23.1	20	21.1	22	23.2	14	14.7	2.09	1.39
8	9	I could describe a model of cross-cultural adjustment stages.	2	2.1	26	27.3	42	44.2	10	10.5	11	11.6	4	4.3	2.85	1.25
9	10	I could cite various learning processes and strategies for learning about and adjusting to the host culture.	5	5.3	28	29.5	40	42.1	15	15.8	3	3.1	4	4.3	3.05	1.02
10	2	I could describe interactional behaviours common among people in the host culture in social and professional areas (e.g. family roles, teamwork, problem solving etc.).	22	23.2	70	73.6	0	0	0	0	1	1.1	2	2.1	4.11	1.35
11	8	I could discuss and contrast various behavioural patterns in my own culture with those in the host culture.	3	3.1	25	26.3	39	41	15	15.8	9	9.5	4	4.3	2.85	1.18
<b>Total</b>															3.50	.961

Table 5.16 Frequencies, percentages, means and standard deviations of attitude statements, time 1

No.	Arrange	Statements  While in the host country, I demonstrated willingness to:	Degree of Approval												Mean	SD
			Extremely High		High		Neutral		weak		Extremely weak		Not At All			
			F	%	F	%	F	%	F	%	F	%	F	%		
12	6	interact with host culture members (I didn't avoid them or primarily seek out my compatriots)	24	25.2	65	68.4	1	1.1	0	0	4	4.2	1	1.1	3.31	.431
13	5	learn from my hosts, their language and their culture	23	24.2	67	70.5	0	0	0	0	2	2.1	3	3.2	4.05	.430
14	3	try to communicate in the host language and behave in appropriate ways, as judged by my hosts	84	88.4	3	3.2	2	2.1	1	1.1	2	2.1	3	3.1	4.65	.448
15	7	deal with my emotions and frustrations with the host culture (in addition to the pleasures it offered)	16	16.8	70	73.7	5	5.2	1	1.1	1	1.1	2	2.1	3.98	.542
16	13	take on various roles appropriate to different situations (e.g. in the family, as a volunteer etc.)	3	3.2	2	2.1	10	10.5	57	60	14	14.7	9	9.5	1.90	.801

17	11	show interest in new cultural aspects (e.g. to understand the values, history, traditions etc.)	3	3.2	39	41	37	38.9	11	11.6	3	3.2	2	2.1	3.23	.779
18	10	try to understand differences in the behaviours, values, attitudes and styles of host members	12	12.7	71	74.7	5	5.2	2	2.1	1	1.1	4	4.2	3.83	.497
19	8	adapt my behaviour to communicate appropriately in the host culture (e.g. in non-verbal and other behavioural areas, as needed for different situations)	16	16.8	69	72.6	3	3.2	2	2.1	1	1.1	4	4.2	3.89	.691
20	4	reflect on the impact and consequences of my decisions and choices on my hosts	81	85.2	3	3.2	4	4.2	3	3.2	2	2.1	2	2.1	4.60	.714
21	12	deal with different ways of perceiving, expressing, interacting and behaving	3	3.2	30	31.5	42	44.2	11	11.6	6	6.3	3	3.2	3.1	1.11
22	1	interact in alternative ways, even when quite different from those to which I was accustomed and preferred	84	88.4	5	5.2	1	1.1	0	0	3	3.2	2	2.1	4.69	.300
23	2	deal with the ethical implications of my choices (in terms of decisions, consequences, results etc.)	85	89.4	4	4.2	1	1.1	1	1.1	0	0	4	4.2	4.69	.364

24	9	suspend judgment and appreciate the complexities of communicating and interacting interculturally	7	7.3	78	82.1	3	3.2	2	2.1	2	2.1	3	3.2	3.81	.323
<b>Total</b>															<b>3.88</b>	<b>.201</b>

Table 5.17 Frequencies, percentages, means and standard deviations of awareness statements, time 1

No.	Arrange	Statements	Degree of Approval												Mean	SD
			Extremely High		High		Neutral		weak		Extremely weak		Not At All			
			F	%	F	%	F	%	F	%	F	%	F	%		
25	18	differences and similarities across my own and the host language and culture	4	4.2	38	40	36	37.8	10	10.5	5	5.3	2	2.1	3.21	.939
26	9	my negative reactions to these differences (e.g. fear, ridicule, disgust, superiority etc.)	21	22.1	60	63.2	8	8.4	0	0	2	2.1	4	4.2	3.91	.538
27	6	how varied situations in the host culture required modifying my interactions with others	11	11.6	79	83.1	0	0	3	3.2	0	0	2	2.1	3.96	.979
28	5	how host culture members viewed me	77	81	11	11.5	2	2.1	1	1.1	1	1.1	3	3.2	4.61	.420
29	14	myself as a ‘culturally conditioned’ person with personal habits and preferences	6	6.3	83	87.3	1	1.1	1	1.1	1	1.1	3	3.2	3.87	.960
30	17	responses by host culture members to my own social identity (e.g. race, class, gender, age etc.)	11	11.6	73	76.8	5	5.2	2	2.1	1	1.1	3	3.2	3.86	.950

31	7	diversity in the host culture (e.g. differences in race, class, gender, age, ability etc.)	16	16.8	73	76.8	0	0	1	1.1	3	3.2	2	2.1	3.95	.966
32	1	dangers of generalising individual behaviours as representative of the whole culture	85	89.5	5	5.2	0	0	0	0	3	3.2	2	2.1	4.71	.376
33	15	my choices and their consequences (which made me either more or less acceptable to my hosts)	9	9.5	77	81	0	0	0	0	1	1.1	8	8.4	3.71	1.24
34	16	my personal values that affected my approach to ethical dilemmas and their resolution	10	10.5	74	77.9	0	0	0	0	2	2.1	9	9.5	3.66	1.35
35	11	my hosts' reactions to me that reflected their cultural values	19	20	64	67.3	3	3.2	3	3.2	4	4.2	2	2.1	3.89	.831
36	12	how my values and ethics were reflected in specific situations	8	8.4	79	83.1	2	2.1	3	3.2	1	1.1	2	2.1	3.88	.639
37	13	varying cultural styles and language use and their effect in social and working situations	7	7.3	83	87.3	0	0	0	0	2	2.1	3	3.2	3.88	.545
38	4	my own level of intercultural development	81	85.2	5	5.2	4	4.2	1	1.1	2	2.1	2	2.1	4.64	.753
39	8	the level of intercultural development of those I associated with (e.g. other	9	9.4	80	84.2	1	1.1	2	2.1	1	1.1	2	2.1	3.95	.380



		programme participants, hosts, co-workers etc.)														
40	3	factors that helped or hindered my intercultural development and ways to overcome them	83	87.4	4	4.2	3	3.1	0	0	2	2.1	3	3.1	4.65	.618
41	2	how I perceived myself as communicator, facilitator, mediator, in an intercultural situation	83	87.3	7	7.4	0	0	1	1.1	1	1.1	3	3.1	4.69	.375
42	10	how others perceived me as communicator, facilitator, mediator, in an intercultural situation	8	8.4	80	84.2	2	2.1	2	2.1	1	1.1	2	2.1	3.91	.535
<b>Total</b>															4.03	.357

Table 5.18 Frequencies, percentages, means and standard deviations of skills statements, time 1

No.	Arrange	Statements	Degree of Approval												Mean	SD
			Extremely High		High		Neutral		Weak		Extremely Weak		Not At All			
			F	%	F	%	F	%	F	%	F	%	F	%		
43	7	I demonstrated flexibility when interacting with persons from the host culture.	12	12.6	71	74.7	7	7.4	0	0	3	3.1	2	2.1	3.87	.446
44	1	I adjusted my behaviour, dress, etc., as appropriate, to avoid offending my hosts.	84	88.4	7	7.4	0	0	0	0	1	1.1	3	3.1	4.73	1.25
45	4	I was able to contrast the host culture with my own.	11	11.6	81	85.2	0	0	0	0	1	1.1	2	2.1	4.00	.418
46	6	I used strategies for learning the host language and about the host culture.	8	8.4	82	86.3	0	0	2	2.1	2	2.1	1	1.1	3.94	.300
47	3	I demonstrated a capacity to interact appropriately in a variety of different social situations in the host culture.	14	14.7	76	80	1	1.1	1	1.1	3	3.1	0	0	4.02	.439
48	11	I used appropriate strategies for adapting to the host culture and reducing stress.	2	2.1	28	29.5	37	38.9	11	11.6	14	14.7	3	3.1	2.83	1.16

49	9	I used models, strategies and techniques that aided my learning of the host language and culture.	4	4.2	29	30.5	43	45.3	11	11.6	6	6.3	2	2.1	3.08	1.09
50	10	I monitored my behaviour and its impact on my learning, my growth and especially on my hosts.	5	5.3	17	17.9	52	54.7	16	16.8	2	2.1	3	3.1	2.98	.93
51	5	I used culture-specific information to improve my style and professional interaction with my hosts.	7	7.4	84	88.4	0	0	0	0	2	2.1	2	2.1	3.96	.863
52	2	I helped to resolve cross-cultural conflicts and misunderstandings when they arose.	76	80	13	13.6	0	0	1	1.1	1	1.1	4	4.2	4.58	.345
53	8	I employed appropriate strategies for adapting to my own culture after returning home.	6	6.3	83	87.4	0	0	1	1.1	2	2.1	3	3.1	3.85	1.02
<b>Total</b>															3.80	0.56

Table 5.20 Frequencies, percentages, means and standard deviations of neuroticism statements, time 1

No.	Arrange	Statements	Degree of Approval										Mean	SD
			Very Accurate		Moderately Accurate		Neutral		Moderately Inaccurate		Very Inaccurate			
			F	%	F	%	F	%	F	%	F	%		
1	16	Worry about things	37	38.9	40	42.1	6	6.3	6	6.3	6	6.3	4.01	1.13
6	1	Get angry easily	70	73.7	17	17.9	5	5.2	1	1.1	2	2.1	4.60	.787
11	10	Often feel blue	39	41.1	46	48.4	2	2.1	4	4.2	4	4.2	4.18	1.01
16	2	Find it difficult to approach others	48	50.5	40	42.1	3	3.1	2	2.1	2	2.1	4.37	.502
21	11	Go on binges	38	40	51	53.7	1	1.1	2	2.1	3	3.1	4.25	.492
26	8	Panic easily	41	43.2	48	50.5	1	1.1	2	2.1	3	3.1	4.28	.497
31	13	Fear for the worst	36	37.9	52	54.7	2	1.1	1	1.1	4	4.2	4.21	.487
36	9	Get irritated easily	42	44.2	46	48.4	2	2.1	2	2.1	3	3.1	4.28	.499
41	19	Dislike myself	2	2.1	22	23.2	15	15.7	26	27.4	30	31.6	2.36	.995
46	3	Am afraid to draw attention to myself	40	42.1	51	53.7	1	1.1	2	2.1	1	1.1	4.34	.501
51	4	Rarely overindulge	50	52.6	35	36.8	4	3.2	3	3.2	3	3.2	4.33	.496
56	5	Become overwhelmed by events	41	43.2	49	51.6	0	0	4	4.2	1	1.1	4.32	.502
61	14	Am afraid of many things	40	42.1	46	48.4	2	2.1	3	3.2	4	4.2	4.21	.502

66	6	Lose my temper	35	36.8	47	49.7	7	7.4	2	2.1	4	4.2	4.13	.633
71	7	Am often down in the dumps	39	41.1	51	53.7	2	2.1	1	1.1	2	2.1	4.31	.675
76	10	Only feel comfortable with friends	40	42.1	48	50.5	2	2.1	4	4.2	1	1.1	4.28	.499
81	18	Easily resist temptations	2	2.2	18	18.9	24	25.3	30	31.6	21	22.1	2.47	1.17
86	24	Feel that I'm unable to deal with things	1	1.1	3	3.2	15	15.8	28	29.5	48	50.5	1.75	1.17
91	21	Get stressed out easily	2	2.0	13	13.7	26	27.4	19	20	35	36.8	2.24	1.30
96	22	Am not easily annoyed	2	2.2	12	12.6	23	24.2	24	25.3	34	35.8	2.2	1.18
101	12	Feel comfortable with myself	34	35.8	56	58.9	2	1.1	1	1.1	2	2.2	4.25	.481
106	17	Am not bothered by difficult social situations	1	1.1	12	12.6	21	22.1	36	37.9	25	24.2	2.24	1.02
111	23	Am able to control my cravings	4	4.2	11	11.6	17	17.9	23	24.2	40	42.1	2.12	1.26
116	20	Remain calm under pressure	1	1.1	15	15.8	23	24.2	24	25.3	32	33.7	2.25	1.20
<b>Total</b>													3.47	.867

Table 5.22 the demographic and contextual information of neurotic participants

	<b>Gender</b>	<b>age</b>	<b>region</b>	<b>Length</b>	<b>Housing</b>	<b>Oral</b>	<b>Advisor</b>	<b>Volunteering</b>	<b>Orientation</b>	<b>Project</b>
N1	Male	20 years old or younger	France	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	NO	YES	YES
N2	Male	21-23	USA	1-3 years	With my family	I am able to speak Arabic fluently and accurately on all levels	NO	YES	YES	NO
N3	Male	24-26	India	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	NO	YES	NO
N4	Male	24-26	Pakistan	1-3 years	With international	I am able to speak	NO	NO	NO	NO

					students	Arabic fluently and accurately on all levels				
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Table 5.24 Frequencies, percentages, means and standard deviations of extroversion statements

No.	Arrange	Statements	Degree of Approval										Mean	SD
			Very Accurate		Moderately Accurate		Neutral		Moderately Inaccurate		Very Inaccurate			
			F	%	F	%	F	%	F	%	F	%		
2.	22	Make friends easily	1	1.1	20	21.1	26	27.4	19	20	29	30.5	2.32	1.33
7	21	Love large parties	2	2.1	18	18.9	23	24.2	25	26.3	27	30.5	2.40	1.37
12	1	Take charge	82	86.3	10	10.5	2	2.1	1	1.1	0	0	4.83	.308
17	13	Am always busy	4	4.2	33	34.7	34	35.8	19	20	5	5.3	3.12	.966
22	2	Love excitement	86	90.5	4	4.2	1	1.1	2	2.1	2	2.1	4.77	.969
27	18	Radiate joy	3	3.1	28	29.5	32	33.7	24	25.3	8	8.4	2.94	.999
32	4	Feel comfortable around people	44	46.3	45	47.4	1	1.1	4	4.2	1	1.1	4.34	.501
37	24	Talk to a lot of different people at parties.	1	1.1	15	15.8	23	24.2	17	17.9	39	41.1	2.18	1.31
42	19	Try to lead others	3	3.1	21	22.1	21	22.1	21	22.1	29	30.5	2.45	1.36
47	14	Am always on the go	1	1.1	42	44.2	24	25.3	18	18.9	10	10.5	3.06	1.05
52	16	Seek adventure	1	1.1	24	25.3	50	52.6	16	16.8	4	4.2	3.02	.796
57	17	Have a lot of fun	2	2.1	36	37.9	29	30.5	18	18.9	10	10.5	3.02	1.06
62	9	Avoid contacts with others	28	29.5	57	60	7	7.3	1	1.1	2	2.1	4.14	.688
67	10	Prefer to be alone	33	34.7	38	40	24	25.3	0	0	0	0	3.59	.773
72	15	Take control of things	4	4.2	27	28.4	39	41.1	21	22.1	4	4.2	3.06	.916



77	20	Do a lot in my spare time	3	3.1	18	18.9	20	21.1	29	30.5	25	26.3	2.42	1.30
82	23	Enjoy being reckless	0	0	23	24.2	13	13.7	23	24.2	36	37.9	2.24	1.42
87	8	Love life	30	31.6	56	58.9	6	6.3	1	1.1	2	2.1	4.17	.604
92	12	Keep others at a distance	2	2.1	28	29.5	50	52.6	11	11.6	4	4.2	3.14	.817
97	6	Avoid crowds	37	38.9	52	54.7	3	3.1	2	2.1	1	1.1	4.28	.688
102	5	Wait for others to lead the way	39	41.1	52	54.7	2	2.1	1	1.1	1	1.1	4.34	.499
107	3	Like to take it easy	76	80	14	14.7	1	1.1	2	2.1	2	2.1	4.68	.435
112	11	Act wild and crazy	7	7.4	58	61.1	8	8.4	19	20	3	3.1	3.49	1.22
117	7	Look at the bright side of life	42	44.2	46	48.4	1	1.1	2	2.1	4	4.2	4.26	.975
<b>Total</b>													3.34	.854

Table 5.26 the demographic and contextual information of extroverted participants

	<b>gender</b>	<b>age</b>	<b>region</b>	<b>Length</b>	<b>Housing</b>	<b>Oral</b>	<b>Advisor</b>	<b>Volunteering</b>	<b>Orientation</b>	<b>Project</b>
E1	Male	20 years old or younger	Afghanistan	1-3 years	With international students	I am able to communicate on some concrete topics	NO	YES	NO	NO
E2	Male	20 years old or younger	Afghanistan	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	NO	NO
E3	Male	20 years old or younger	Niger	More than 4 years	With my family	I am able to speak Arabic fluently and accurately on all levels	YES	NO	YES	NO
E4	Male	20 years old or younger	Nigeria	1-3 years	With international students	I am able to communicate on some concrete topics	NO	NO	NO	NO
E5	Male	21-23	Pakistan	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	YES	NO	NO
E6	Male	21-23	Uzbekistan	1-3 years	With international	I am able to speak Arabic	NO	NO	NO	NO

					students	fluently and accurately on all levels				
E7	Male	21-23	China	More than 4 years	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	YES	NO	NO
E8	Male	21-23	Nigeria	More than 4 years	With Saudi students	I am able to communicate only in limited capacity	YES	YES	YES	NO
E9	Male	21-23	Kenya	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	NO	YES	NO
E10	Male	24-26	India	1-3 years	With international students	I am able to communicate on some concrete topics	NO	NO	NO	NO
E11	Male	24-26	India	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	NO	NO	NO
E12	Male	24-26	Pakistan	Less than a	With international	I am able to communicate	YES	YES	YES	YES

				year	students	only in limited capacity				
E13	Male	24-26	Pakistan	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	YES	YES	NO	NO
E14	Male	24-26	Nigeria	1-3 years	With international students	I am able to communicate only in limited capacity	NO	YES	NO	NO
E15	Male	24-26	Nigeria	More than 4 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	NO	NO
E16	Male	older than 26	Afghanistan	More than 4 years	With Saudi students	I am able to speak Arabic fluently and accurately on all levels	YES	YES	NO	YES
E17	Male	older than 26	Niger	Less than a year	With international students	I am able to speak with sufficient structural accuracy and	YES	YES	YES	NO

						vocabulary				
E18	Male	older than 26	Chechnya	More than 4 years	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	NO	YES	YES
E19	Female	24-26	Nigeria	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	NO	YES	YES
E20	Female	24-26	Kenya	Less than a year	With international students	I am able to communicate only in limited capacity	NO	NO	NO	NO
E21	Female	older than 26	Niger	1-3 years	With my family	I am able to communicate only in limited capacity	NO	YES	NO	NO

Table 5.28 Frequencies, percentages, means and standard deviations of openness statements

No.	Arrange	Statements	Degree of Approval										Mean	SD
			Very Accurate		Moderately Accurate		Neutral		Moderately Inaccurate		Very Inaccurate			
			F	%	F	%	F	%	F	%	F	%		
3	12	Have a vivid imagination	2	2.1	25	26.3	48	50.5	15	15.8	5	5.3	3.04	.849
8	17	Believe in the importance of art	0	0	31	32.6	29	30.5	22	23.2	13	13.7	2.81	1.04
13	2	Experience my emotions intensely	74	77.9	14	14.7	2	2.1	4	4.2	1	1.1	4.64	.356
18	19	Prefer variety to routine	2	2.1	19	20	25	26.3	20	21.1	29	30.5	2.42	1.37
23	15	Love to read challenging material	1	1.1	35	36.8	31	32.6	19	20	9	9.5	3.00	1.00
28	7	Tend to vote for liberal political candidates	38	40	46	48.4	5	5.3	2	2.1	4	4.2	4.22	.663
33	18	Enjoy wild flights of fantasy	2	2.1	17	17.9	40	42.1	26	27.4	10	10.5	2.74	.944
38	14	See beauty in things that others might not notice	1	1.1	32	33.7	36	37.9	19	20	7	7.4	3.01	.939
43	1	Feel others’ emotions	82	68.3	5	5.3	2	2.1	3	3.1	3	3.1	4.68	.308
48	7	Prefer to stick with things that I know	24	25.3	69	72.6	1	1.1	1	1.1	0	0	4.22	.436
53	5	Avoid philosophical discussions	36	37.9	50	52.6	5	5.3	3	3.1	1	1.1	4.23	.630
58	10	Believe that there is no absolute right or wrong	34	35.8	29	30.5	30	31.6	0	0	2	2.1	3.98	.837
63	13	Love to daydream	7	7.4	35	36.8	16	16.8	27	28.4	10	10.5	3.02	1.17
68	20	Do not like poetry	1	1.1	20	21.1	20	21.1	24	25.3	30	31.6	2.34	1.29

73	9	Rarely notice my emotional reactions	34	35.8	44	46.3	11	11.6	2	2.1	4	4.2	4.07	.714
78	21	Dislike changes	1	1.1	16	16.8	24	25.3	25	26.3	29	30.1	2.31	1.29
83	8	Have difficulty understanding abstract ideas	35	36.8	37	38.9	21	22.1	1	1.1	1	1.1	4.09	.775
88	24	Tend to vote for conservative political candidates	3	3.1	13	13.7	20	21.1	25	26.3	34	35.8	2.22	1.07
93	16	Like to get lost in thought	4	4.2	30	31.6	22	23.2	25	26.3	14	14.7	2.84	1.11
98	23	Do not enjoy going to art museums	4	4.2	13	13.7	15	15.8	32	33.7	31	32.6	2.23	1.03
103	20	Don't understand people who get emotional	3	3.1	15	15.8	24	25.3	24	25.3	29	30.1	2.36	1.25
108	4	Am attached to conventional ways	70	73.7	17	17.9	3	3.2	2	2.1	3	3.1	4.57	.523
113	11	Am not interested in theoretical discussions	4	4.2	35	36.8	31	32.6	16	16.8	9	9.5	3.09	1.04
118	3	Believe that we should be tough on crime	71	74.7	17	17.9	2	2.1	1	1.1	4	4.2	4.58	.436
<b>Total</b>													3.34	.930

Table 5.30 the demographic and contextual information of open participants

	gender	age	region	Length	Housing	Oral	Advisor	Volunteering	Orientation	Project
O1	Male	20 years old or younger	India	Less than a year	With international students	I am able to communicate only in limited capacity	NO	NO	NO	NO
O2	Male	20 years old or younger	Niger	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	YES	YES	NO
O3	Male	20 years old or younger	Chechnya	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	NO	NO	NO
O4	Female	21-23	Pakistan	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	YES	YES
O5	Male	21-23	Afghanistan	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	NO	NO
O6	Male	21-23	Nigeria	1-3 years	With my family	I am able to communicate on some concrete topics	YES	NO	NO	NO
O7	Male	21-23	Nigeria	More than 4 years	With international students	I am able to communicate on some concrete topics	YES	YES	YES	YES
O8	Male	21-23	Kenya	More	With Saudi	I am able to speak	YES	YES	YES	NO



				than 4 years	students	with sufficient structural accuracy and vocabulary				
O9	Male	21-23	France	1-3 years	With international students	I am able to communicate only in limited capacity	NO	NO	NO	NO
O10	Male	24-26	Pakistan	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	YES	NO
O11	Male	24-26	Pakistan	1-3 years	With my family	I am able to speak with sufficient structural accuracy and vocabulary	YES	NO	NO	NO
O12	Male	24-26	Pakistan	More than 4 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	YES	YES	YES	NO
O13	Male	24-26	Niger	More than 4 years	With my family	I am able to communicate on some concrete topics	NO	YES	YES	NO
O14	Male	24-26	Nigeria	More than 4 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	YES	YES	YES
O15	Male	older than 26	Niger	More than 4 years	With international students	I am able to speak with sufficient structural accuracy	NO	YES	YES	NO

						and vocabulary				
O16	Male	older than 26	Nigeria	More than 4 years	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	NO	NO	NO
O17	Female	20 years old or younger	India	More than 4 years	With my family	I am able to communicate on some concrete topics	NO	YES	YES	YES
O18	Female	20 years old or younger	Afghanistan	More than 4 years	With my family	I am able to communicate only in limited capacity	NO	YES	YES	NO
O19	Female	20 years old or younger	Afghanistan	More than 4 years	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	NO	YES	NO
O20	Female	21-23	China	1-3 years	With Saudi students	I am able to communicate only in limited capacity	NO	YES	NO	YES
O21	Female	older than 26	Kenya	Less than a year	With Saudi students	I am able to communicate only in limited capacity	NO	NO	NO	NO
O22				Less than a year	With international students	I am able to communicate only in limited capacity	NO	NO	NO	NO
	Female	older than 26	Kenya	More than 4 years	With my family	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	YES	YES



Table 5.32 Frequencies, percentages, means and standard deviations of agreeableness statements

No.	Arrange	Statements	Degree of Approval										Mean	SD
			Very Accurate		Moderately Accurate		Neutral		Moderately Inaccurate		Very Inaccurate			
			F	%	F	%	F	%	F	%	F	%		
4	3	Trust other	80	84.2	8	8.4	4	4.2	0	0	3	3.1	4.71	.702
9	23	Use others for my own ends	2	2.1	1	1.1	11	11.6	31	32.6	50	52.6	1.67	.858
14	8	Love to help others	22	23.2	71	74.7	1	1.1	0	0	1	1.1	4.19	.424
19	13	Love a good fight	2	2.1	38	40	10	10.5	14	14.7	31	32.6	2.64	1.52
24	16	Believe that I am better than others	5	5.3	17	17.9	18	18.9	34	35.8	21	22.1	2.48	1.21
29	6	Sympathize with the homeless	45	47.4	44	46.3	1	1.1	0	0	5	5.3	4.31	.501
34	4	Believe that others have good intentions	81	85.3	6	6.3	2	2.1	4	4.2	2	2.1	4.68	.878
39	9	Cheat to get ahead	6	6.3	51	53.7	10	10.5	16	16.8	12	12.6	3.24	1.39
44	1	Am concerned about others	89	93.6	2	2.1	2	2.1	1	1.1	1	1.1	4.86	.319
49	7	Yell at people	30	31.6	65	68.4	0	0	0	0	0	0	4.31	.467
54	14	Think highly of myself	5	5.3	28	29.5	11	11.6	24	25.3	27	28.4	2.58	.501
59	2	Feel sympathy for those who are worse off than myself	88	92.6	3	3.2	1	1.1	1	1.1	2	2.1	4.83	.489
64	5	Trust what people say	45	47.4	45	47.4	2	2.1	3	3.1	0	0	4.39	.501
69	11	Take advantage of others	2	2.1	21	22.1	46	48.4	17	17.9	9	9.4	2.89	.914

74	19	Am indifferent to the feelings of others	7	7.4	2	2.1	17	17.9	17	17.9	52	54.7	1.89	.861
79	22	Insult people	5	5.3	1	1.1	18	18.9	9	9.5	62	65.6	1.71	.857
84	10	Have a high opinion of myself	3	3.1	45	47.4	18	18.9	22	23.2	7	7.4	3.11	1.06
89	20	Am not interested in other people's problems	4	4.2	9	9.5	9	9.5	16	16.8	57	60	1.84	.999
94	18	Distrust people	5	5.3	0	0	22	23.2	26	27.4	42	44.2	1.94	.904
99	12	Obstruct others' plans	7	7.4	20	21.1	24	25.3	31	32.6	13	13.7	2.76	1.17
104	17	Take no time for others	4	4.1	15	15.8	16	16.8	42	44.2	18	18.9	2.42	1.15
109	21	Get back at others	7	7.4	1	1.1	14	14.7	21	22.1	52	54.7	1.84	.809
114	15	Boast about my virtues	5	5.3	25	26.3	11	11.6	31	32.6	23	24.2	2.55	1.38
119	24	Try not to think about the needy	6	6.3	1	1.1	16	16.8	18	18.9	54	56.8	1.81	.905
<b>Total</b>													3.07	.645

Table 5.34 the demographic and contextual information of agreeable participants

	gender	age	region	Length	Housing	Oral	Advisor	Volunteering	Orientation	Project
A1	Male	20 years old or younger	Pakistan	1-3 years	With international students	I am able to communicate only in limited capacity	YES	YES	NO	NO
A2	Male	20 years old or younger	Nigeria	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	YES	YES	NO
A3	Male	21-23	Pakistan	1-3 years	With international students	I am able to communicate on some concrete topics	NO	YES	YES	NO
A4	Male	21-23	Niger	Less than a year	With my family	I am able to communicate on some concrete topics	NO	NO	NO	NO
A5	Male	21-23	Nigeria	Less than a year	With international students	I am able to communicate on some concrete topics	YES	YES	NO	NO
A6	Male	21-23	France	1-3 years	With my family	I am able to communicate only in limited capacity	YES	YES	NO	YES
A7	Male	24-26	India	Less than a year	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	YES	YES
A8	Male	24-26	Uzbekistan	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all	YES	YES	YES	NO

						levels				
A9	Male	24-26	Uzbekistan	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	YES	NO	NO
A10	Male	24-26	Niger	More than 4 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	YES	YES	NO	NO
A11	Male	24-26	Nigeria	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	NO	NO
A12	Female	21-23	Pakistan	1-3 years	With my family	I am able to communicate on some concrete topics	NO	NO	YES	YES
A13	Female	24-26	Afghanistan	1-3 years	With my family	I am able to communicate only in limited capacity	NO	NO	YES	YES
A14	Female	24-26	Nigeria	Less than a year	With Saudi students	I am able to communicate only in limited capacity	NO	NO	NO	NO

Table 5.36 Frequencies, percentages, means and standard deviations of conscientiousness statements

No.	Arrange	Statements	Degree of Approval										Mean	SD
			Very Accurate		Moderately Accurate		Neutral		Moderately Inaccurate		Very Inaccurate			
			F	%	F	%	F	%	F	%	F	%		
5	9	Complete tasks successfully	35	36.5	50	52.6	2	2.1	4	4.2	4	4.2	4.13	1.04
10	1	Like to tidy up	78	82.1	9	9.5	2	2.1	4	4.2	2	2.1	4.65	.884
15	3	Keep my promises	34	35.8	58	61.1	1	1.1	0	0	2	2.1	4.28	.481
20	6	Work hard	7	7.4	50	52.6	23	24.2	9	9.5	6	6.3	3.45	1.24
25	14	Am always prepared	9	9.5	31	32.6	26	27.4	18	18.9	11	11.6	3.09	1.05
30	22	Jump into things without thinking	1	1.1	22	23.2	19	20	21	22.1	32	33.7	2.36	1.17
35	16	Excel in what I do	3	3.1	27	28.4	37	38.9	17	17.9	11	11.6	2.93	1.02
40	20	Often forget to put things back in their proper place	3	3.1	27	28.4	15	15.8	14	14.7	36	37.9	2.44	1.57
45	12	Tell the truth	5	5.3	44	46.3	21	22.1	14	14.7	11	11.6	3.18	1.57
50	7	Do more than what's expected of me	30	36.8	60	63.2	1	1.1	2	2.1	2	2.1	4.20	1.24
55	11	Carry out my plans	4	4.2	53	55.8	12	10.5	22	23.2	4	4.2	2.26	.102
60	21	Make rash decisions	2	2.1	10	10.5	20	21.1	58	61.1	5	5.3	2.43	.612
65	5	Handle tasks smoothly	32	33.7	58	61.1	2	2.1	3	3.1	0	0	4.25	.475
70	15	Leave a mess in my room	2	2.1	27	28.4	42	44.2	14	14.7	10	10.5	2.98	.475



75	24	Break rules	9	9.5	1	1.1	4	4.2	13	13.7	68	71.5	1.63	.966
80	13	Do just enough work to get by	3	3.1	48	50.5	15	15.8	14	14.7	15	15.8	3.17	.589
85	23	Waste my time	7	7.4	1	1.1	0	0	50	52.6	37	38.9	1.91	1.13
90	18	Rush into things	5	5.3	17	17.9	24	25.3	29	30.5	20	21.5	2.55	.490
95	2	Know how to get things done	54	56.8	38	40	1	1.1	1	1.1	1	1.1	4.50	.497
100	4	Leave my belongings around	39	41.1	51	53.7	0	0	1	1.1	4	4.2	4.26	.501
105	17	Break my promises	5	5.3	20	21.1	17	17.9	37	38.9	16	16.8	2.58	1.23
110	19	Put little time and effort into my work	2	2.1	2	2.1	38	40	48	50.5	5	5.3	2.45	1.07
115	10	Have difficulty starting tasks	3	3.1	34	35.8	51	53.7	2	2.1	5	5.3	3.29	1.06
120	8	Act without thinking	18	18.9	72	75.8	3	3.1	1	1.1	1	1.1	4.11	.390
<b>Total</b>													3.42	.753

Table 5.38 the demographic and contextual information of conscientious participants

	<b>gender</b>	<b>age</b>	<b>region</b>	<b>Length</b>	<b>Housing</b>	<b>Oral</b>	<b>Advisor</b>	<b>Volunteering</b>	<b>Orientation</b>	<b>Project</b>
C1	Male	20 years old or younger	Pakistan	Less than a year	With international students	I am able to communicate only in limited capacity	NO	NO	YES	YES
C2	Male	20 years old or younger	Afghanistan	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	NO	NO
C3	Male	20 years old or younger	Uzbekistan	Less than a year	With international students	I am able to communicate only in limited capacity	NO	YES	YES	NO
C4	Male	20 years old or younger	France	1-3 years	With my family	I am able to communicate only in limited capacity	NO	NO	YES	YES
C5	Male	21-23	Pakistan	More than 4 years	With Saudi students	I am able to communicate only in limited capacity	YES	YES	YES	NO
C6	Male	21-23	Niger	1-3 years	With international students	I am able to communicate on some concrete topics	NO	NO	NO	NO
C7	Male	21-23	Niger	1-3 years	With my family	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	NO	NO
C8	Male	21-23	Nigeria	Less than a	With international	I am able to speak with sufficient	YES	NO	NO	YES

				year	students	structural accuracy and vocabulary				
C9	Male	21-23	Nigeria	More than 4 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	YES	YES	NO	NO
C10	Male	21-23	USA	More than 4 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	YES	YES	YES
C11	Male	24-26	India	Less than a year	With international students	I am able to communicate on some concrete topics	YES	YES	YES	NO
C12	Female	24-26	India	Less than a year	With international students	I am able to speak with sufficient structural accuracy and vocabulary	YES	YES	YES	NO
C13	Male	24-26	India	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	YES	YES	NO	NO
C14	Male	24-26	India	1-3 years	With international students	I am able to communicate on some concrete topics	NO	NO	NO	YES
C15	Male	24-26	India	1-3 years	With international	I am able to speak with sufficient	YES	NO	YES	NO

					students	structural accuracy and vocabulary				
C16	Male	24-26	Pakistan	1-3 years	With international students	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	YES	NO
C17	Male	24-26	Pakistan	More than 4 years	With international students	I am able to communicate on some concrete topics	NO	YES	YES	NO
C18	Male	24-26	Uzbekistan	Less than a year	With international students	I am able to communicate on some concrete topics	NO	NO	YES	NO
C19	Male	24-26	Uzbekistan	1-3 years	With my family	I am able to speak with sufficient structural accuracy and vocabulary	YES	YES	YES	YES
C20	Male	24-26	Uzbekistan	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	NO	NO	NO
C21	Male	24-26	China	Less than a year	With Saudi students	I am able to speak Arabic fluently and accurately on all levels	NO	NO	NO	NO
C22	Male	24-26	Niger	Less than a	With international	I am able to communicate on	YES	YES	YES	NO

				year	students	some concrete topics				
C23	Male	24-26	Niger	1-3 years	With Saudi students	I am able to speak with sufficient structural accuracy and vocabulary	NO	NO	NO	NO
C24	Male	24-26	Niger	More than 4 years	With international students	I am able to communicate only in limited capacity	NO	YES	NO	NO
C25	Male	24-26	India	Less than a year	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	NO	NO
C26	Male	24-26	Nigeria	1-3 years	With international students	I am able to communicate only in limited capacity	NO	YES	YES	YES
C27	Female	24-26	Nigeria	1-3 years	With international students	I am able to communicate on some concrete topics	NO	NO	NO	NO
C28	Male	24-26	France	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	NO	NO	NO
C29	Male	24-26	Chechnya	Less than a year	With international students	I am able to communicate on some concrete topics	NO	NO	NO	NO

C30	Male	older than 26	Pakistan	1-3 years	With international students	I am able to speak Arabic fluently and accurately on all levels	NO	YES	NO	NO
C31	Female	21-23	Pakistan	1-3 years	With my family	I am able to communicate only in limited capacity	NO	NO	NO	NO
C32	Female	21-23	Afghanistan	Less than a year	With my family	I am able to speak Arabic fluently and accurately on all levels	NO	NO	YES	NO
C33	Female	24-26	Pakistan	Less than a year	With international students	I am able to communicate only in limited capacity	NO	NO	NO	NO
C34	Female	24-26	Pakistan	1-3 years	With my family	I am able to communicate only in limited capacity	NO	NO	NO	NO

Table 6.1 Interview questions

1	Can you briefly describe your personal values and what matters to you?
2	Did you participate in orientation? If so, what did you value about orientation, and what did you not like? How would you change orientation if you could?
3	Did you speak Modern Standard Arabic before arriving in Saudi Arabia?
4	How do you rate your oral proficiency in Modern Standard Arabic?
5	Do you have any supporting evidence?
6	Which language did you find yourself using whilst at home here in Saudi?
7	Remind me of your living arrangements (e.g. shared accommodation with locals, own private accommodation etc.) and why?
8	Would you regard yourself as an extrovert or introvert? Why?
9	Do you feel you take charge of situations?
10	Do you prefer to talk rather than listen?
11	What makes you think of yourself as conscientious (mindful and careful)?
12	What type of behaviours and traits would you personally associate with being conscientious?

13	What factors do you feel helped you in developing your ability to successfully communicate with others in Saudi Arabia? By this, I mean are you able to form emotional connection with others, share your personal feelings with ease, give and receive feedback and adapt with ease to new situations?
14	Which factors do you feel may have hindered your ability to communicate with others (Saudis/non-Saudis) within this context (i.e. your ability to form emotional connection and lasting friendships, ability to openly share your feelings and work on feedback)?
15	How do you develop your ability to communicate with others, and what strategies did you use? How did you learn to actually listen to a person, and did you employ specific techniques to better listen to and understand your peers?
16	What is your personal approach to solving problems that occur due to cultural misunderstanding?
17	How do you handle stress caused by cultural differences while communicating with others?
18	Do you feel your gender segregation limits your ability to engage and interact successfully in a new cultural setting?
19	Do you think that your cultural skills have improved the longer you have stayed in Saudi Arabia? If yes, could you give examples for this?
20	What are the essential norms and taboos of the host culture you know?
21	How does this help interact with host nationals?
22	How does feeling others' emotions help interact with host nationals? Please give examples. Have you adjusted your behaviour or dress?



23	What is your perspective about breaking cultural rules? Is this acceptable? What might be acceptable in which situation and why?
24	When at home, how did you spend your time?
25	Did you prefer to socialise with other international students or locals? Could you please provide a reason for this?
26	What would you change about your overall experience?
27	Having filled a personality test previously, do you feel that the questions you answered were reflective of your personality in any way?
28	Is there anything you felt was missing in these tests?
29	Is there anything else you would like to add?