The Impact of Multicultural Personality Traits and Cultural Intelligence on Social Connectedness among University Students in Taiwan

by

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Philippians chapter four verse thirteen declares that “I can do all things through Christ who strengthens me.” A Bible verse that resonated with me from my earlier years in life. I am grateful for life so I must thank my source. I would like to thank Father God for keeping me [safe, healthy, sane, fed, sheltered, and grounded] on all days and in all ways! I made it this far with Your guidance and grace. Thank you, Lord!

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ABSTRACT

Being in a new environment or around people of differing cultural backgrounds often requires a level of adaptation. For students who divert from their usual comfort zones and engage in overseas education, they may find themselves needing to culturally adjust to communicate properly and make new friends or simply aware of their social world. The same can be said of the host national students who are expected to socialize with their international classmates. Personality qualities and cross-cultural adaptation have been found to be closely associated. It was not considered appropriate to apply the Big Five personality traits in cross-cultural situations because they have been found to be overly general. Hence, three of the five Multicultural Personality Traits of open mindedness, cultural empathy, and social initiative were utilized to ascertain whether a connection existed within personality traits and social connectedness. Additionally, the cross-cultural competency of cultural intelligence, with the faucets of behavioral, cognitive, motivational, and meta-cognitive CQ, were considered the moderator between the prior mentioned variables. Responses from the participants—international and Taiwanese university students enrolled in graduate programs—were gathered to evaluate the study's hypothesis. The study revealed that there was a significant relationship between multicultural personality traits and social connectedness. However, the individual dimensions and cultural intelligence did not have a positive relationship to social connectedness. Cultural intelligence though, moderated the connections between social connectedness and personality qualities in this research.

Keywords: multicultural personality, cultural intelligence, social connectedness

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CHAPTER I INTRODUCTION

The context of the investigation, the study's objectives, the problem statement, its questions, and its boundaries are all provided in this chapter. In addition, this chapter contains definitions for the important terminologies.

Background of the Study

Although countries have borders and some major differences, in comparison to others, those have not halted the movement of people. Globalization is one of the primary reasons for these movements and interactions (Ang et al., 2007; Chao et al., 2017; Kadam et al., 2019; Wang et al., 2021). Whether it relates to employment, education, a new interest, or simply wanting a breath of fresh air, relocation occurs. Now, one must try to adapt to the new environment one is in. Thus, Fang et al. (2018) mentioned it has become more crucial than ever for management, academics and practitioners to pinpoint the competencies that allow people to connect across cultural boundaries effectively.

The emergence of the term cross-cultural competence (CCC) discussed the instances where one's aptitude functions to successfully interconnect with persons from a dissimilar cultural upbringing (Bernard & Presbitero, 2017; Ming, 2020; Presbitero, 2015; van der Zee et al., 2013). In most discussions relating to CCC, two of the most widely established concepts are cultural intelligence and intercultural competence (Ming, 2020). As this paper focuses on the university level education, it is more than evident but also highly essential that cross-cultural competency be developed (Wang et al., 2014) also as van der Zee and van Oudenhoven (2000) posited, how multicultural personality traits (MPT) may or may not influence it.

Cultural intelligence was a construct which must be differentiated from both emotional and social intelligence. The ability to successfully reintegrate into one's culture was a common measure of cultural intelligence (CQ), having four components: cognitive: the understanding of cultural norms and variances; metacognitive: the mind's capability to attain and process cultural awareness; motivational: the capacity focusing on networking with persons from dissimilar cultural upbringings; behavioral: the ability to adjust behavior in multicultural relationships (Earley & Ang, 2003). In contrast, the broad area of abilities related to social interactions was reflected in the idea of social intelligence. Strong social intelligence essentially indicated the capacity of a person to complete duties (like problem-

solving) through and alongside other people (Earley & Ang, 2003). Whereas Salovey and Mayer claim that emotional intelligence (1990) was characterized in the manner of "the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189).

Research has revealed a connection between personality and CQ as an intercultural construct (Ang et al., 2006; Presbitero, 2015). However, for the purpose of this study, the Big Five was not used. The goal is to assess multicultural effectiveness which is accomplishments in personal adjustment, intercultural communication, and professional effectiveness. Thus, as van der Zee and van Oudenhoven (2000) stated, MPT was seen as a need. Like CQ, it is multidimensional having five elements. Cultural empathy- being able to relate to people who have various cultural backgrounds in terms of their emotions, ideas, and actions, flexibility- refers to viewing unfamiliar circumstances as a welcome challenge and making appropriate adjustments to them., emotional stability- indicates the capacity to maintain composure in unfamiliar and challenging situations., social initiative- describes a propensity to engage social circumstances head-on, and open mindedness- pertaining to diverse cultural norms and values and exhibiting an accepting and nonjudgmental demeanor toward those who belong to an outgroup (van der Zee et al., 2013).

Thus, MPT and CQ were used as determinants to students' connectivity to their social world. Social connectedness, while it can indicate how culturally adjusted a person is, it can also indicate areas of concern like depression, low self- esteem, loneliness, and/ or growing anxiety (Duru & Poyrazli, 2011; Lee & Robbins, 1998). Nevertheless, it was anticipated that CQ would have a positive moderating effect on social connectedness.

Since preparing for international responsibilities was one of the aims of business schools, it was the site of a lot of recent study on university students' CQ (Brancu et al., 2015; Lin & Shen, 2019). Of recent, determining CQ in other educational fields like engineering (Kadam et al., 2020) and health care (Wang et al., 2021) were also developing. It was crucial that the construct of CQ be studied in Taiwan's educational context, regardless of the field, especially when several students were non-citizens. As stated by the Ministry of Education, Republic of China- Taiwan (2024) of the approximated 1,120,000 students enrolled in higher education, 103,700 are non-citizen students. Though the sizes were incomparable, obtaining

both sets of students' perspectives of their personality in relation to cultural effectiveness and maintaining presence in the social world- or the lack thereof- was vital.

In summary, the intent of this study was determining if a correlation involving social connectedness, multicultural personality traits, and cultural intelligence exist. This was because many international students who either currently hold permanent residency or may consider it, attend Taiwan's educational institutions. Conversely, those who were eager to get back to their native nation. Furthermore, how the host country's students were integrating with their new peers. Personality factors had a significant impact on how people behave in cross-cultural contexts, and in psychology, cultural intelligence has become a crucial idea to enhance cross-cultural success.

Statement of the Problem

Pursuing further education in a new country, a different area in your country, or just an unfamiliar space can be a bit challenging. However, one stills needs to be interculturally effective (van der Zee & van Oudenhoven, 2000) while making connections plus being acquainted with their immediate social world (Lee & Robbins, 1998). For the purpose of this study, discovering if one's multicultural personality traits were a predictor for social connectedness while learning whether or not CQ had a moderating impact between the two variables, were conducted.

In their recent publication to study the effect of socioeconomic level, CQ, and social connectedness on international students' life gratification, Chen et al. (2021) proposed that future research "should include international students who are studying in Taiwan and should also add more international samples to identify possible cultural differences among countries" (p. 160). Furthermore, Hofhuis et al. (2020) in the scope of transnational educational activities, approved the use of the Multicultural Personality Questionnaire Short Form (MPQ-SF). They concluded "future scholars who use the MPQ-SF in such contexts, to also test for measurement invariance in their own sample" (Hofhuis et al., 2020, p. 11).

As a result, the current study aimed to act on such recommendations and fill the gap that exists from these viewpoints. In doing so, the paper seeks to uncover the influence of MPT paired with CQ on social connectedness among Taiwan's university students.

Purpose of the Study

One of the leading intents this research sought was to investigate the connection between CQ, SC, and MPT. Ascertaining these interactions between the MPT and SC, CQ and SC, lastly, CQ on MPT and SC were conducted. Additionally, this study investigated whether social connection and multicultural personality traits were moderated by cultural intelligence in Taiwanese and international university students. The study also sought to broaden existing information about the connection between social connectedness, cultural intelligence, and personality traits in Taiwan.

Questions of the Study

Matched with its study goal, this research sought to provide answers to the following queries based on the research problems:

1. Will multicultural personality traits have a significant relationship with social connectedness?
2. Does CQ have a positive effect on social connectedness?
3. Will cultural intelligence moderate the affiliation concerning multicultural personality traits and social connectedness?

Significance of the Study

The Graduate Institute of International Human Resource Development prides itself in one of the program's major objectives, which is to "cultivate human resource professionals and scholars with an international perspective" (Graduate Institute of International Human Resource Development [IHRD], 2021, p. 3). To assist with such cultivation, it is important that the scholars are knowledgeable on how to interact with others of different cultures. It was projected that the outcomes from this research would aid in this aspect.

Many studies have focused solely on international students on a foreign land seeking adjustment but not much research focusing on both the international and host national's scholars simultaneously. The research's results enhanced the literature of the corresponding variables. Moreover, it also created a new direction for investigation into the use of multicultural personality and social connectedness in Taiwan in the future, while contributing to their generalizability.

An important point that was predicted based on this study's findings was the modification of syllabus, attitudes, or views of those concerned beyond the IHRD. Findings may have indicated that students were more socially disconnected rather than connected. That would signal students were more vulnerable to despair, anxiety, and low self-esteem because they were unable to adequately regulate their needs and moods. In such a situation, psychological assistance should be given to these students.

Delimitations of the Study

This research experienced the following delimitations. Firstly, this research solely utilized the quantitative methodology, which excluded qualitative data collection techniques. In such, it limited the respondents' responses. Secondly, this research was limited to university students currently studying in Taiwan. Next, this research focused solely on multicultural personality traits and cultural intelligence as determinants to social connectedness. There may have been other factors that impacted either variable throughout the study, however, these three were the only constructs that were assessed.

Definitions of Key Terms

The definitions of the major terminology used in this study were given in this section. It was significant to remember that the theoretical definition describes the idea underlying the constructs, whilst the operational definition explains the manner in which the variables were monitored. This study focused on three primary constructs: cultural intelligence, social connectivity, and multicultural personality traits.

Multicultural Personality Traits

This study applied Van der Zee and van Oudenhoven's (2000) Multicultural Personality Questionnaire (MPQ), which was established to determine multicultural efficacy. The concept of multicultural personality was separated into five qualities: cultural empathy (CE), flexibility (FL), emotional stability (ES), open mindedness (OM), and social initiative (SI).

Social Connectedness

“Social connectedness reflects an internal sense of belonging and is defined as the subjective awareness of being in close relationship with the social world” (Lee & Robbins, 1998, p. 338).

Cultural Intelligence

Cultural intelligence was expressed as “an individual's capability to function and manage effectively in culturally diverse settings” (Ang, et al., 2007, p. 336). It comprised of four faucets, that were cognitive, meta-cognitive, motivational (three of them considered mental abilities), and behavioral CQ (Ang, et al., 2007).

CHAPTER II LITERATURE REVIEW

The purpose of the literature review is to elaborate on the theoretical background of the variables, while providing their definitions. Thereafter, illustrating the relationship that exists between them.

Multicultural Personality

Among the many things that indicate differentiations between each other, there lies the infamous personality. One that was heard so often that a definition just might not be needed, right? So much so that van der Zee and van Oudenhoven (2000, 2001) and van Oudenhoven and van der Zee (2002) mentioned not a definition. Fiske (1988) also denoted that clearly, there was no consensus on the essential definition of personality. Perhaps it was best to look at the term as identifying a broad area for research (p. 817). Nonetheless, Cervone and Pervin (2023) shared that while an objection to the definition was valid, humans -mostly- merely possess an "intuitive understanding" of the term (p. 4).

Thus, a proper definition was required as people normally use personality in different manners. Though Fiske stated his point, he also discussed the content of our thoughts and words about other people, was considered personality. Personality referred to the processes that go on inside your mind and there is no direct observation of that. It was in the black box, and we try to ascertain how it works (1988). On the other hand, Beutler et al. (2011, p. 1) expressed personality as "a social construct that refers to behaviors that are socially relevant, stable, have continuity overtime, and are assumed to reflect certain motivational properties" (p. 1). These colleagues continued by stating it was then expected that personality traits were at least partly developed by a process of development, social learning and decision making (Beutler et al., 2011).

Previous research by Connor-Smith and Flachsbart (2007) indicated a degree of similarity with the above-mentioned and shared the following:

> *Broadly, personality and temperament are defined as characteristic patterns of thoughts, feelings, and behaviors over time and across situations. Although temperament often refers to traits reflecting predominantly biological predispositions, and personality to traits influenced by environmental factors, models of temperament and personality show a strong degree of overlap* (p. 1080).

It can be said now that personality entails behavioral patterns that have continuity and were developed/ altered by various factors as one navigates through life. For the purpose of this paper, the commonly used Big Five Personality was not used, rather a multicultural approach (van der Zee & van Oudenhoven, 2000). The five multicultural characteristics had "explanatory value above and beyond the Big Five in predicting outcomes such as successful adjustment of" (van der Zee & van Oudenhoven, 2013, p. 929) international students (Van Oudenhoven & Van der Zee, 2002). Towards determining multicultural effectiveness via personality, five specific traits were addressed: flexibility (FL), open-mindedness (OM), cultural empathy (CE), social initiative (SI), and emotional stability (ES) (van der Zee et al., 2013).

CE or cultural sensitivity (Leong, 2007) was said to be the most researched personality trait for cultural effectiveness (van der Zee & van Oudenhoven, 2001). Zhu (2011) provided an in - depth history "as a word from the Greek "empatheia", empathy meant understanding others by entering their world, or standing in somebody else's shoes" (p. 116). With this in mind, it was no wonder why Ruben (1976) identified the term through "the capacity to put oneself in another's shoes, or to behave as if one could, has been suggested as important to the development and maintenance of positive human relationships within and between cultures" (p. 340). This dimension referred to the capacity of people from many ethnic groups to empathize with one another's emotions, ideas, and behaviors (van Oudenhoven & van der Zee, 2002).

OM was the second trait, that was expressed in terms of openness and objectivity regarding outgroup members, as well as various societal standards and principles (van Oudenhoven & van der Zee, 2002). Students who were open to new ideas (have a high level of open mindedness) can postpone their judgments when encountered with altered systems of actions or values (van der Zee & van Oudenhoven, 2013).

The third trait of the multicultural personality was emotional stability. In relation to multicultural effectiveness, emotional stability was seldom discussed in written works (van Oudenhoven & van der Zee, 2002). However, even though that was, Leong (2007) articulated both cultural empathy and "the capacity to handle stressful intercultural experience (Emotional Stability/Regulation) as critical dimensions of multicultural competence" (p. 546). Emotional stability was the inclination to stay relaxed in hectic conditions, as opposed to an inclination to have intense sensitive reactions in the face of challenging circumstances

(van Oudenhoven & van der Zee, 2002). Concerned solely not by how a student can handle a demanding circumstance, it also involved how they regulate their emotions while in that situation.

SI was “defined as a tendency to approach social situations in an active way and to take initiatives” (van Oudenhoven & van der Zee, 2002, p. 681). Later, this same pair added that when “in an intercultural context, high scorers on this trait tend to demonstrate initiative, or start an interaction rather than wait and watch” (van der Zee & van Oudenhoven, 2013, p. 929).

The final addressed trait was flexibility. The student should be able to easily transition between approaches in an unfamiliar cultural setting because sticking to the familiar course of action won't guarantee success. In cases where a student's expectations of the circumstances in their new location or host nation differ from reality, flexibility becomes more crucial (van Oudenhoven & van der Zee, 2002).

Usually, if a person heard the term personality, the most common thing to think about was the Big Five Personality traits. However, there was a movement beyond the Big Five and it was multicultural personality traits. The Multicultural Personality Questionnaire was created as a multifaceted tool to estimate multicultural efficacy. It was intended to address, in more detail, the facets of more general characteristics that are important for intercultural success (van der Zee & van Oudenhoven, 2000). It should be noted that all five elements conceptually resemble the Big Five, except for flexibility. Nonetheless, together the five dimensions are capable of anticipating variance in intercultural success criteria above and beyond the Big Five, according to the first empirical investigation on the predictive usefulness of the five intercultural qualities among students (van der Zee & van Oudenhoven, 2013).

In the research regarding social integration and learning a second language among sojourners, van Niejenhuis et al. (2018) utilized a few dimensions from the MPT as moderators in their study. Those dimensions were social initiative and openness (which was a combination of cultural empathy and open mindedness). The results indicated openness was positively related to cultural integration and a high level of social initiative indicated an affirmative shift in outlook about the host country. As a result, this research opted for the use of these three individual dimensions for this study.

Cultural Intelligence

Being in a new or the same environment with people of a different culture may require some knowledge for us to communicate properly. Thus, we explore a specific type of intelligence. Cultural intelligence, according to Sousa et al. (2019) “is defined as a set of skills/ competencies that facilitate the adaptation to diverse cultural situations and allow the interpretation of unfamiliar situations and behaviors, as well as the identification of behaviors that are universal to all humankind” (p. 3).

In most intercultural settings and research, cultural intelligence (CQ) has become more of a household term. Especially since it extends to the notion of a person being effective when functioning in a culturally diverse setting (Yeke & Semerciöz, 2016). Moreover, the process of globalization has placed greater emphasis on this type of intelligence (Presbitero, 2015; Steyn & Solomon, 2017; Lin & Shen, 2019) given one needed to learn how to effectively adjust to new cultures. Determining the role CQ plays in these settings, particularly at universities, can help to ascertain how students of unfamiliar cultures interact with each other and their environment.

The phrase "cultural intelligence" rose to popularity by Earley and Ang (2003) to emphasize the “adaptation to varying cultural contexts” (p. 4). In their book, they later added, the description is “a person’s capability for successful adaptation to new cultural settings, that was, for unfamiliar settings attributable to cultural context” (Earley & Ang, 2003, p. 9). Dr. Lubna Mansuri (2014) viewed this as “the ability one possesses to adjust and adapt to differences in all aspects, especially” (p. 264). After a systematic review, Steyn and Solomon (2017) believed one way to characterize CQ was:

> *A discrete intelligence type, that embraces the ability (which may be enhanced, learned and developed) of individuals and organizations to adjust to and thus function effectively across all types and levels of culture and culturally diverse settings, that they may or may not have previously been exposed to, and which sprouts from the desire to acquire and embodying the capacity to process culture-specific knowledge and is demonstrated through culture appropriate behaviors* (p. 72).

Although it was lengthier, their objective was to incorporate some factors they viewed as important from the articles they had observed. Nonetheless, Sternberg et al. (2021, 2022) recent publications reiterated a few of these notions by describing CQ (or CI as they noted) as

"one's ability to adapt when confronted with problems arising in interactions with people of diverse cultures" (p. 2). In totality, cultural intelligence was associated with one successfully integrating into a different cultural environment.

Though numerous definitions existed on the concept of cultural intelligence, it had been uniformly agreed that this framework was multi-dimensional. Four distinct, but connected components are therefore included in CQ (Brancu et al., 2016). Initially there were three major faucets of cognitive, behaviour, and motivational (Earley & Ang, 2003). Hence, an indication confirmed that earlier researchers combined the two cognitive aspects (Fang et al., 2018). However, subsequent chapters and publications identified one more dimension of metacognitive, increasing the total to four. Since CQ entailed adjusting to a different culture, these dimensions focused on a person's state while in these settings. Mental capacity that resided in the head consists of motivation, cognition, and metacognitive (perception), whereas behavioral capabilities were open acts. (Ang, et al., 2007).

Cognitive CQ was the first faucet at the mental functional level (Earley & Ang, 2003). According to Van Dyne et al. (2012), this kind of CQ was known as "an individual's knowledge structures about cultural institutions, norms, practices, and conventions in different cultural settings" (p. 6). Given it was a mental process, it entailed having an awareness of the parallels and discrepancies of cultural norms (Sousa, et al., 2023). They could have belonged to contexts of either culture- general knowledge (explicit knowledge of the key elements of the cultural environment) or culture- specific knowledge (knowledge of the fact that cultural universals were manifested in a specific field and procedural knowledge about how to use them effectively) (Van Dyne, et al., 2012).

This factor was considered especially important for CQ, aided in shaping an individual's behaviors and thoughts since they were knowledgeable of the culture's practices. Furthermore, "understanding a society's culture and the component of culture allows individuals to better appreciate the systems that shape and cause specific patterns of social interaction within a culture" (Ang & Van Dyne, 2008, p. 6).

Metacognitive CQ, which was also a mental capability, was the second faucet of CQ. Viewing it in a broad manner, Ang, Van Dyne and Rockstuhl 2015 posited one can say it helped "to acquire and understand cultural knowledge… It includes planning, awareness, and checking" (p. 279). This faucet though, was concerned with an individual's state during an engagement. The latter to what Ang and colleagues mentioned was later expanded on.

Sternberg and colleagues (2022) shared “for example, to understand how one is thinking about the situation one is in—as friendly, hostile, indifferent, or whatever” (p. 2).

Simply put, “the term metacognitive CQ refers to an individual’s level of conscious cultural awareness during cross-cultural interactions” (Ang & Van Dyne, 2008, p. 5). At that, Ang and van Dyne (2008) proceeded to highlight the importance of this faucet and how people with a high metacognitive CQ interact. These individuals, as Ang and Van Dyne (2008) characterized them “consciously question their own cultural assumptions, reflect during interactions, and adjust their cultural knowledge when interacting with those from other cultures” (p. 5). Brancu et al. (2016) echoed that point and concluded that having a high level metacognitive CQ meant before and during communication, one could identify the other’s cultural preferences.

The last faucet belonging to the mental capability was the Motivation CQ. Motivational CQ examined the ability to take initiative and focus on acquiring knowledge on and performing in conditions marked by contrasts of culture (Ang & Van Dyne, 2008; Brancu et al., 2016). This CQ contained the drive, the willingness to attempt to gain knowledge and/ or open engagement with persons from another culture. Fang et al. (2018) claimed “motivational CQ included interest and confidence in cross-cultural interactions, as well as direct effort and energy expended in cross-cultural interactions” (p. 151).

Finally, there was Behavioral CQ, which was illustrated as “the capability to exhibit appropriate verbal and nonverbal actions when interacting with people from different cultures” (Ang & Van Dyne, 2008, p. 6). Behavioral CQ was associated with the actions, both spoken and unspoken, one conducted during cultural engagement and, which “provides the necessary conditions for other CQ aspects to function effectively” (Fang et al., 2018, p. 151). This illustrated the interconnectivity among the four CQ faucets. Earley and Ang speculated earlier, “we believe that cultural intelligence is not meaningful unless an individual is able to generate the behaviors needed to reflect cognition and motivation” (Earley & Ang, 2003, p. 10). Nonetheless, the behavioral component was utilized to implement the behavior which one considered necessary in such situations.

It was crucial that this aspect be taken into account, as it was the largest and strongest manifestation of CQ in social interactions. People relied heavily on overt expressions and manifestations of behavior, since they did not have admittance to one another's unconscious contemplations, emotional state, or motive (Presbitero, 2015).

Cultural intelligence had become a prominent construct in the matter of CCC. Earley and Ang (2003) stated though that was the case, cultural intelligence was still different from emotional intelligence and social intelligence. They also highlighted the multidimensionality of CQ, which includes the behavioral aspect of behavioral CQ, and the three mental aspects of motivational, meta-cognitive, and cognitive CQ. In totality, these dimensions expressed the definition, “an individual's capability to function and manage effectively in culturally diverse settings” (Ang, et al., 2007, p. 336). Furthermore, knowing what to do and how to accomplish it, CQ demands that a person have the willpower to keep going after what was learned. A person with high CQ was expected to act appropriately and sensitively to cultural differences (Ming, 2020).

Social Connectedness

Relocating to a different area of residency had its advantages and disadvantages. On the downside, one may be prone to loneliness or seclusion, which can affect how they react to/ in social contexts. While the opposite was portrayed as an advantage, which involved making friends and feeling comfortable around others (Baumeister & Leary, 1995). Both scenarios indicated a level of connectedness. For many, especially during the adolescent development stage, the need for companionship increased and existed all the way through their adult years (Lee & Robbins, 1995; Lee et al., 2001). As a result of this initial need, if it was properly catered to, humans tend to function positively when socially connected. On the other hand, they were socially disconnected once this need was not sufficiently catered to. Therefore, maintaining a sense of connectivity gives people the social perspective that enabled them to view the world as a whole (Lee & Robbins, 1998).

“Social connectedness reflected an internal sense of belonging and was defined as the subjective awareness of being in a close relationship with the social world” (Lee & Robbins, 1998, p. 338). The pair soon highlighted that the foundation for social connectedness includes the person’s unification of experiences garnered from immediate relationships with [the social world, which included persons who were classified as] society, peers, strangers, friends, acquaintances, family, and the community (Lee & Robbins, 1998). Duru and Poyrazli’s (2011) view on the topic stated that social connectedness as openly known “can affect one’s emotions, cognitions, and perceptions, and therefore one’s actions in relation to one’s social world” (p. 448). This was in relation to how connected, or the lack thereof, an individual was to their social world.

Then, latest studies suggested that due to the deprivation feeling of "social connectedness, individuals may be frustrated and disappointed in the social setting when they assumed no one could empathize them" (Hong et al., 2021, p. 31). However, earlier studies have partially initiated these conversations. Lee and Robbins (1995) shared that a person who was unable to feel connected felt different and out of place from other people. Accepting social roles and responsibilities was hard for a person to accept, which led them into more isolation. The person tried to make connections with others, but ultimately became frustrated by the fact that other people were not understanding them. Disappointment with any aspect of the development of belonging can affect a person's ability to carry out their tasks efficiently (Lee & Robbins, 1995). In terms of education, upon leaving their country, students were cut off from old relationships, contacts, and significant others. When students start to look for new friends, this loss can be very hard on them (Hendrickson et al., 2011).

Conversely, those with higher connection levels were more equipped to use cognitive processes to manage their personal desires and emotions (Lee & Robbins, 1998). Few years later, studies described the traits of these people stating, "people with high connectedness tend to feel very close with other people, easily identify with others, perceive others as friendly and approachable, and participate in social groups and activities" (Lee et al., 2001, p. 310). At face value, it may have seemed as though these people were extroverted or something of that sort. However, as Lee and Robbins (1998) mentioned, they were more cognitively in tune with themselves, which provided ease when attempting to interact with others; knowing the likenesses and distinctions that exist.

For students whether they were in a new environment or not, possessing a high level of connectedness would be favorable. At least enough to get through. Additionally, there were more benefits one would have achieved considering "social exchange, which involves the reciprocal fulfillment of obligations between different parties in a relationship, can take many forms, including the exchange of material goods, socioemotional support, and interpersonal regard" (Si et al., 2021, p. 84). Furthermore, while Chen and colleagues highlighted the difficulties with social connectedness, they also pointed out two important features that can apply to students. "Since social connectedness is complex, building a sense of community within one's host country enables overseas adjustment and cross-cultural competence" (Chen et al., 2021, p. 152). Being in a new environment can be intimidating for

some students but becoming socially connected can instill a level of ease and adaptability in their transition.

Often times, entering different surroundings can feel strained because the spotlight might be on you too much or none at all. Either way, people desired to feel a sense of belonging, for friendships, relationships with others and the world around them. This feeling explored the notion of social connectedness. It was recently shared "social connectedness is similar to a sense of belonging, which can help people form social bonds and have mental and physical health… When individuals lack social connectedness, their mental health may be negatively affected" (Zhang et al., 2023, p. 484).

The Relationships among the Variables

Multicultural Personality and Social Connectedness

While a plethora of literature existed on personality, there was not a specific study that focused on both multicultural personality and social connectedness. Considering that van der Zee and van Oudenhoven (2013) pointed out that the Big Five and their five components have logical comparisons, apart from flexibility, some studies were considered. Lee et al. (2008) discussed that measuring social connectedness and extraversion, they can "confirm a close association between the two constructs" (p. 417).

Furthermore, Zainab and Mohanan (2021) investigated personality qualities, social connectedness, and social interaction anxiety. The results showed that extraversion and neuroticism were substantially positively and negatively correlated with social connectedness, respectively, while agreeableness, conscientiousness, and openness were not significant predictors of social connectedness.

Since prior research addressed the Big Five personality traits, this paper intends to add such an aspect to the pool of knowledge as it relates to the multicultural personality traits and social connectedness. In addition, van Niejenhuis et al. (2018) made an attempt to discover a relationship between social initiative and openness (a combination of cultural empathy and open-mindedness) to social integration. Hence, this research construed the following hypotheses.

Hypothesis 1. *Multicultural personality traits exhibited a significant relationship with social connectedness.*

Hypothesis 1(a). *The multicultural personality trait of cultural empathy exhibited a positive relationship with social connectedness.*

Hypothesis 1(b). *The multicultural personality trait of social initiative exhibited a positive relationship with social connectedness.*

Hypothesis 1(c). *The multicultural personality trait of open mindedness exhibited a positive relationship with social connectedness*.

Cultural Intelligence and Social Connectedness

It was very difficult for foreign students who physically disconnect from their old relationships when they have left their country of origin (Chen et al., 2021). The rise of technology and its reliability had somehow alleviated this, but the disconnection remains. Students with a higher social connectedness level would tend to create new friendships and interact more with others. Alternatively, students having a lower social connectedness level may tend to become lonely, depressed, or struggle with high anxiety (Lee & Robbins, 1998).

An endeavor to engage with someone having a cultural difference helped the learner become more culturally competent (Earley & Ang, 2003). In a recent study, Bethel et al. (2020) findings included "connections with host nationals may serve as a functional mechanism through which international students ease their transition stress and cope with cultural differences" (p. 9). In a study to ascertain the effects of social connectedness, CQ, and socio-economic status on overseas students' life satisfaction, Chen et al. (2021) established a relationship between SC and CQ. They stated social connectedness can enable students to feel driven to adjust to their new surroundings- motivational CQ, to learn important cultural information- cognitive CQ, develop ways to cope, and willing to adapt in order to properly fit into a new cultural environment- metacognitive CQ, to acquire the ability to exhibit appropriate cultural behaviors- behavioral CQ (Chen et al., 2021).

With insight of this relationship obtained from Chen et al. (2021), it is possible that in turn, the dimensions of CQ should also have an effect on SC in pursuit with the goal of this current research. Hence, the subsequent hypothesis was purported.

Hypothesis 2. *CQ had a positive effect on social connectedness.*

Multicultural Personality, Cultural Intelligence, and Social Connectedness

Regarding the connection between social connectedness and personality traits, cultural intelligence might potentially serve as a moderating factor. Although, in the context of personality traits and social connectedness, there was no clear evidence that cultural intelligence had an intermediary role. “Social connectedness can affect one's emotions, cognitions, and perceptions, and therefore one's actions in relation to one's social world” (Duru & Poyrazli, 2011, p. 448). With that in mind, if social connectedness can affect personality traits and faucets of CQ, can these variables in return affect social connectedness?

Earlier investigations have revealed an affiliation between personality traits and cultural intelligence (Ang et al., 2006; Bernard & Presbitero, 2017; Hofhuis et al., 2020; Presbitero, 2015; Wang et al., 2017). Chen et al.’s (2021) findings illustrated a support for their hypothesis of “social connectedness has a positive effect on CQ” (p. 153). The association relating to multicultural personality and social connectedness was deficient, but it was still anticipated that CQ would moderate the relationship.

Hypothesis 3. *Cultural intelligence moderated the connection between personality traits and social connectedness.*

Control Variables Development

In diligently assessing the previous literature, especially of those whose operational definitions were used, this paper incorporated three control variables. These variables were age, gender, and nationality. Both age and gender were common in the studies of Ang et al. (2007), Lee et al. (2001), and van der Zee et al. (2013). The two latter studies also had nationality in common, as a control.

CHAPTER III METHODOLOGY

This section contained an overview of the research design and methods, as well as the research hypotheses and framework. Additionally offered was a description of the measuring technique and questionnaire design material. Additional discussion was the data analysis methodology.

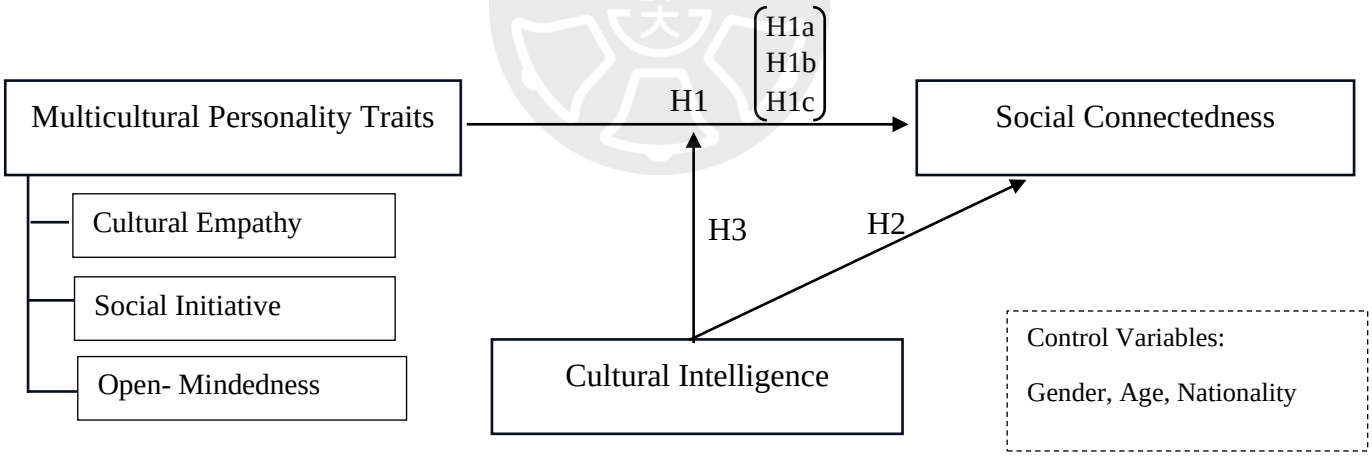
Research Framework

In keeping with the goal of the study and the literature review, this study aimed to discern and examine the connection among the three variables of multicultural personality traits, cultural intelligence, and social connectedness.

Of these, Figure 3.1 illustrated that the independent variable was personality trait. Social connectedness was identified as the dependent variable. Lastly, cultural intelligence was the moderating variable between the independent and dependent variables.

Figure 3.1

Research Framework



Research Hypotheses

Grounded on aim of this paper, which was to uncover the impact of multicultural personality traits and cultural intelligence on social connectedness, the following hypotheses were constructed:

Hypothesis 1: Multicultural personality traits exhibited a significant relationship with social connectedness.

Hypothesis 1(a): The multicultural personality trait of cultural empathy exhibited a positive relationship with social connectedness.

Hypothesis 1(b): The multicultural personality trait of social initiative exhibited a positive relationship with social connectedness.

Hypothesis 1(c): The multicultural personality trait of open mindedness exhibited a positive relationship with social connectedness

Hypothesis 2: CQ had a positive effect on social connectedness.

Hypothesis 3: Cultural intelligence moderated the connection between personality traits and social connectedness.

Research Procedure

To accomplish the entirety of this research, Figure 3.2 demonstrated the process this paper sought to pursue. Before attempting to start writing, the selection of a topic ensued and discussed with advisor. After the finalization, conduction of the literature review began. This step was not only to discover suitable definitions for the key terms, but for the researcher to receive an in-depth knowledge of the topic to be pursued. It also aided in discovering more past studies, which can provide an unfamiliar perspective. This point was deemed as important since it is necessary to demonstrate that your hypothesis and research topic were fulfilled. The researcher was able to identify the research questions and problems of this study by reading relevant articles.

To be able to conduct research, it was important to collect previous data for reference. Next, it was necessary to decide on the type of measurement to be used to analyze the data and results. The quantitative approach and participants were chosen. Then, consideration on the appropriate measurement scales for the variables was made. The latter steps of data collection, data analysis execution, provision of findings and discussion, and the conclusion and recommendations were garnered after the distribution and re-collection of the survey to and from the participants.

Figure 3.2

Research Procedure

Participants and Data Collection

The quantitative method was utilized to observe the relationship between MPT, SC, and CQ in order to achieve the goal of this study. The research included university students, both international and Taiwanese (who took/ is taking a course(s)/ engage with international students), from various universities in Taiwan. A pilot test study was conducted with an expected 30 participants to ensure the reliability of the questionnaire. The aim of the second stage was to attract approximately 200 participants via the online survey. Utilizing a digital platform helps speed up the data collection process. Hence, Survey Cake was used for obtaining data.

Firstly, the pilot study was initiated in March 2024. Since less participants were required for this type of study, IHRD current classmates were asked to complete the form. The response rate was both slow and low. It led to seeking participants individually from the non-IHRD courses, whose contact information was available. That process was what completed the quota for the pilot study. After the data was collected, the next step was to analyze it. The descriptive, reliability, and regression analyses were easily conducted. The issue arose when it was time to perform the CFA (for the model fit indices) and corresponding validity analysis.

Contact was then made with the instructor who introduced the JASP software to the class. The conclusion was that the sample size was too small for the analysis to be performed properly so it led to negative variance results, which was an example of a Heywood case. Borrowed from Harman and Fukuda, 1966, it was described as “a solution that otherwise is satisfactory but produces a communality greater than one” (Farooq, 2022). This article highlighted issues including causes and solutions of these cases. A small sample size should not have had many indicators. This study had 30 participants and a total of 64 indicators. Since the study needed more participants, the main study’s collection began.

The primary data collection garnered a total of 220 responses. However, after removal of four responses for being completed in less than ten minutes, there were 216 valid responses. These respondents originate from various countries but are currently residing in Taiwan for educational purposes. The data collection method of convenience sampling was utilized to gather the data. This was achieved via the online questionnaire using Survey Cake. The online data collection commenced on May 22, 2024, and concluded on June 15, 2024. Unlike the pilot study, this was completed quicker with the help of a broader source of

collection. The link to the questionnaire was posted in various Facebook groups for international/ exchange students living in Taiwan, sent to the NTNU's Office of International Affairs (OIA) and a student branch established under the OIA, it was sent to Line and WhatsApp groups, classmates, acquaintances, and other students met at NTNU's school gym at different times of the day (for two weeks). They were contacted via email, a direct message, or physical contact by scanning the QR code during the said timeframe.

Measurements

The questionnaire used incorporated the measurements for multicultural personality traits, cultural intelligence, and social connectedness. As a result, this survey included a total of sixty-four questions. Each scale to be used has a different rating. The purpose of this difference was to ensure that, according to Chang et al. (2010), diversifying the scales decreased the likelihood of common method variance (CMV), which was a matter of a misleading relationship between variables due to a shared data collection method. Chang et al.'s point was prior stated by Podsakoff et al. (2003) that one approach to ease unfairness was "to use different scale endpoints and formats for the predictor criterion measures. This reduces method biases caused by commonalities in scale endpoints and anchoring effects" (p. 888).

Multicultural Personality

In evaluating personality traits, the Multicultural Personality Questionnaire Short Form (MPQ-SF) (van der Zee et al., 2013) was utilized. With this assessment, characteristics of students were evaluated in connection to intercultural success. In certain study circumstances, such as those with time or space constraints or high respondent drop-out rates, the abbreviated form would offer a trustworthy substitute (Hofhuis et al., 2020). The forty elements of the MPQ-SF were broken down into the following categories: flexibility (8 situations) "Functions best in familiar settings"; open mindedness (8 situations) "Has feeling for what's appropriate in culture"; social initiative (8 situations) "Finds it difficult to make contacts"; emotional stability (8 situations) "Is under pressure"; and cultural empathy (8 situations) "Enjoys other people's stories". Every item had a Likert scale with five points, with choices alternating from one (absolutely not relevant) to five (entirely appropriate). Table 3.1 outlined the dimensions and related questions used in this study. The previously reported Cronbach's alpha was for cultural empathy $\alpha = .81$, social initiative $\alpha = .81$, and open mindedness $\alpha = .72$ (van der Zee et al., 2013).

Table 3.1

Multicultural Personality Questionnaire Measurement

Dimension	Questions
Cultural Empathy	1. Senses when others get irritated 2. Enjoys other people's stories 3. Sympathizes with others 4. Notices when someone is in trouble 5. Sets others at ease 6. Pays attention to the emotions of others 7. Is a good listener 8. Getting to know others profoundly
Social Initiative	1. Is reserved 2. Takes the lead 3. Leaves initiative for others to make contacts 4. Takes initiatives 5. Is inclined to speak out 6. Makes contacts easily 7. Finds it difficult to make contacts 8. Is often the driving force behind things
Open Mindedness	1. Has feelings for what's appropriate in culture 2. Seeks people from different backgrounds 3. Has a broad range of interests 4. Is looking for a new way to obtain your goals 5. Starts a new life easily 6. Likes to imagine solutions to problems 7. Tries out various approaches 8. Is a trendsetter in societal developments

Note. Adopted from "Multicultural personality questionnaire: Development of a short form", by K. van der Zee et al., 2013, *Journal of Personality Assessment*, 95 (1), 118-124. Copyright 2013 by Taylor & Francis Group.

Cultural Intelligence

For measuring the CQ level of the students, Ang et al. (2007) Cultural Intelligence Scale (CQS) was used. The purpose of the CQS was to be a gauge of a person's aptitude for engaging with individuals from various diverse cultures. The scale consisted of twenty items that evaluated individually the CQ elements: motivational CQ (five situations) “I am confident that I can get accustomed to the shopping conditions in a different culture”; metacognitive CQ (four situations) “I am conscious of the cultural knowledge I apply to cross-cultural interactions”; behavioral CQ (five situations) “I vary the rate of my speaking when a cross-cultural situation requires it”; and cognitive CQ (six situations) “I know the cultural values and religious beliefs of other cultures”. It was expected of the responders to choose a response from a Likert scale with seven points, where 1 represented strong disapproval and 7 represented full agreement; that “BEST describes you AS YOU REALLY ARE” (Ang, et al., 2007). Table 3.2 held the used questions for this study. As it related to reliability, the “composite reliabilities exceeded 0.70” (Ang, et al., 2007, p. 344).

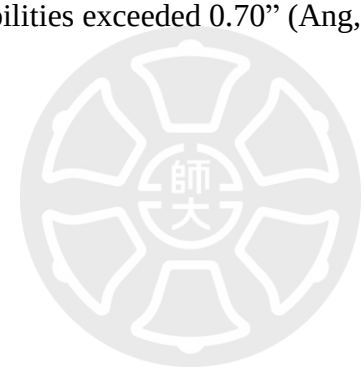


Table 3.2

Cultural Intelligence Measurement

CQ Factor	Questions
Metacognitive	I am conscious of the cultural knowledge I apply to cross-cultural interactions. I check the accuracy of my cultural knowledge as I interact with people from different cultures. I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.
Cognitive	I know the arts and crafts of other cultures. I know the rules for expressing nonverbal behaviors in other cultures. I know the rules (e.g., vocabulary, grammar) of other languages. I know the legal and economic systems of other cultures. I know the marriage systems of other cultures. I know the cultural values and religious beliefs of other cultures.
Motivational	I am confident that I can get accustomed to the shopping conditions in a different culture. I enjoy living in cultures that are unfamiliar to me. I am sure I can deal with the stresses of adjusting to a culture that is new to me. I am confident that I can socialize with locals in a culture that is unfamiliar to me. I enjoy interacting with people from different cultures.
Behavioral	I alter my facial expressions when a cross-cultural interaction requires it. I change my nonverbal behavior when a cross-cultural situation requires it. I vary the rate of my speaking when a cross-cultural situation requires it. I use pause and silence differently to suit different cross-cultural situations. I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.

Note. Adopted from "Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance", by S. Ang et al., 2007, *Management and Organization Review*, 3 (3) 335-371. Copyright 2007 by Blackwell Publishing Ltd.

Social Connectedness

To estimate how comfortable and self-assured students were in a wider social setting than with friends or family (with individuals who may be viewed differently from oneself), this research used the Social Connectedness Scale-Revised (SCS-R) (Lee et al., 2001). It was a revision to the Social Connectedness Scale (Lee & Robbins, 1995), which "was written in a negative direction" (Lee et al., 2001, p. 311). The self-report had twenty items, containing a Likert scale with six points, which ranged from one equating to agree to six equating to disagree. Sample questions included: "I feel comfortable in the presence of strangers;" "I see myself as a loner;" and "I catch myself losing a sense of connectedness with society." Table 3.3 illustrated the associated questions. The reliability measured in a previous study resulted in α=.92 (Lee et al., 2001).

Table 3.3

Social Connectedness Measurement

Questions
1. I fit in well in new situations
2. I have little sense of togetherness with my peers
3. My friends feel like family
4. I find myself actively involved in people's lives
5. Even among my friends, there is no sense of brother/ sisterhood
6. I am in tune with the world
7. I feel comfortable in the presence of strangers.
8. I am able to connect with other people
9. I feel understood by the people I know
10. I see people as friendly and approachable
11. I see myself as a loner
12. I feel disconnected from the world around me
13. I don't feel I participate with anyone or any group
14. I feel close to people

15. Even around people I know, I don't feel that I really belong
16. I am able to relate to my peers
17. I catch myself losing a sense of connectedness with society
18. I feel like an outsider
19. I don't feel related to most people
20. I feel distant from people

Note. Adopted from "Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model", by R. M. Lee, M. Draper, and S. Lee, 2001, *Journal of Counseling Psychology*, 48(3), 310-318. Copyright 2001 by the American Psychological Association, Inc.

Demographic Information

This study evaluated a few control variables, which can be attained from the respondents' demographic data. Ang et al. (2007) involved sex, age, and cross- cultural experience as controls. Lee et al. (2001) tested for gender, age, residency, ethnicity, and class/ year of degree. For this paper, gender (coded as female=1 and male=2), age, and country of origin (coded as Taiwan=0 and International=1) were incorporated.

The design of the questionnaire contained the independent variable of MPT, the dependent variable of SC, and the moderating variable of CQ with the demographic information. This study conducted reliability with Cronbach alpha test and validity testing during the pilot test and main study. This study followed the standardized manner to check if the reliability and validity are correct.

Data Analysis

The information gathered was examined using Jeffreys's Amazing Statistics Program (JASP). The following five statistical analyses were then conducted.

Pilot Test

A pilot study was conducted prior to the mass questionnaire distribution of the main study. A pilot or feasibility study is described as "a small-scale study, which was undertaken to decide if it was worth carrying out a detailed investigation" (Kumar, 2014, p. 14). The undergone pilot study collected 30 valid responses from current university students in Taiwan. These responses were collected using survey cake.

Reliability Analysis

Reliability estimates were used to evaluate the stability of measurements, the internal consistency of measurement tools, and the interrater reliability of instrument scores (Kimberlin & Winterstein, 2008). Cronbach's Alpha was utilized to evaluate reliability. “Reliability coefficients range from 0.00 to 1.00, with higher coefficients indicating higher levels of reliability” (Kimberlin & Winterstein, 2008, p. 2277). When the reliability values were near to 1.00, it meant that the variables under investigation were measurable (Mohamad et al., 2015). Table 3.4 illustrated the reliability of measurements from the pilot testing. Together, the three dimensions accumulated an alpha of 0.84. This was followed by CQ and SC bearing an alpha of 0.88 and 0.90, respectively.

Table 3.4

Cronbach’s Alpha of the Measurement of the Pilot Study

Variables	Number of Items	Cronbach’s Alpha
Multicultural Personality Traits	24	0.84
Cultural Intelligence	20	0.88
Social Connectedness	20	0.90

Note. N=30.

The internal reliability of the main study was depicted in Table 3.5. The independent variable, Multicultural Personality Traits, had a total of 24 questions, which measured CE, SI, and OM (8 questions each). The moderating and dependent variable of cultural intelligence and social connectedness, respectively, had 20 questions each. Each of the alpha value were above the threshold though SC showed a decrease in value, compared to that of the pilot study [seen above in Table 3.4]. CQ had the same value as above, similarly to MPQ. In assessing these variables, collectively they had a reliability of $\alpha = 0.93$.

Table 3.5

Reliability Test of the Main Study Variables' Measurement

Variables	Cronbach's Alpha	Total Cronbach's α
Multicultural Personality Traits	0.80	
Cultural Intelligence	0.90	0.93
Social Connectedness	0.73	

Note. N=216.

Main Study

Validity implied to the extent to which the assumptions of a test's conclusions were supported, and this was dependent on the specific purpose of the test (Kimberlin & Winterstein, 2008). As a result, the Confirmatory Factor Analysis (CFA) was implemented through the updated CFA in the JASP software. The fit of the CFA model was evaluated using several statistical measures. These encompassed the ratio of χ^2 to degree of freedom (χ^2/df), the degree of freedom (df), the p value, the Comparative Fit Index (CFI), the Root Mean Square Error of Approximation (RMSEA), the Standardized Root Mean Square (SRMR), the Parsimony Normed Fit Index (PNFI), and the Good Fit Index (GFI).

Table 3.6 highlighted the results of the analysis where, for the most part, resulted in a good overall fit. The χ^2/df (5775.468/ 1649 = 3.50) was labelled as good fit given the threshold was between 2 and 5. Though it was labelled as such, it was not the only method used for assessing the model's fit as other fit measures now exist. Hu and Bentler (1999) reiterated that the purpose of fit indexes was to circumvent some issues related to experiment size and distributional inaccuracies that were present in the traditional overall test of fit (the χ^2 statistic) when assessing a model. Thus, all the other fit measures indicated a good fit, except for the root mean square error of approximation (0.10), which was labelled as poor due to its distance from the threshold. The SRMR was below 0.8 and the PNFI and GFI were above 0.5 and 0.9, respectively.

Those fit results were only valid after the second analysis. During the first instance, the values were extremely low considering unacceptable factor loadings. Once those negative loadings or the R^2 values less than .20 were removed as suggested by Hooper et al. (2008), the fit indices were improved. A total of five items were removed. Those items that were withdrawn included the social initiative question number eight from the MPQ-SF and questions number 12, 14, 16, and 19 from the SC-R scale. Although there were other items having a R^2 value less than .20, these specific questions were deemed the lowest. Hence, their

removal. Figure 3.3 demonstrated the relationship and factor loadings among the items by each factor, where JC_72 was the personality traits, JC_73 was CQ, and JC_74 was SC.

As it related to the CFA process, a recent publication by Rogers (2023) was used as guidance for this analysis. Rogers advised that the use of the robust standard errors, ULS (unweighted least squares) estimator, and listwise deletion in the case of any missing observations (Rogers, 2023). ULS as an estimator was presumed to be the best option as prior research stated it produced, especially in smaller sample sizes, the highest results (Holgado-Tello et al., 2018).

Table 3.6

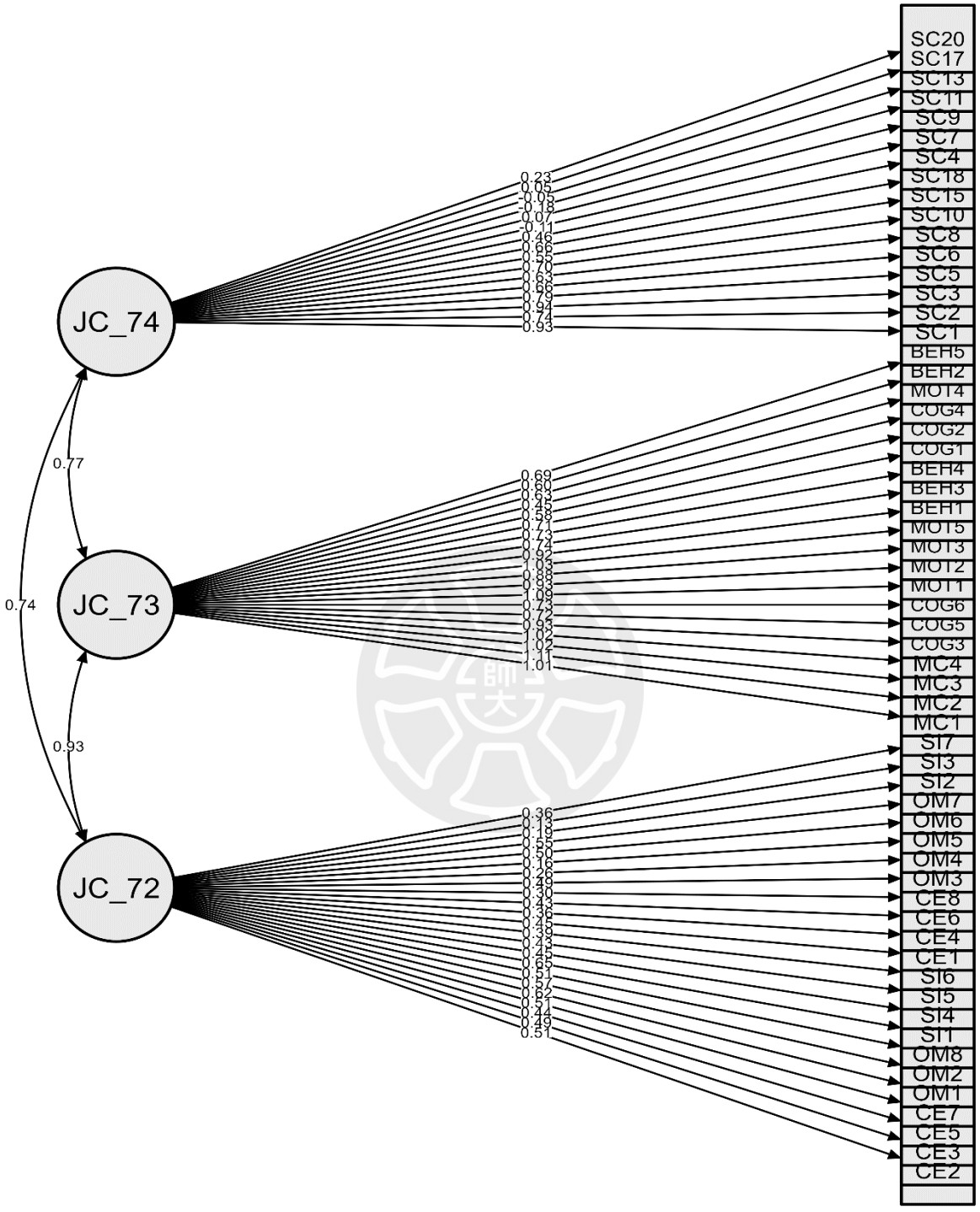
Summary of Measurement Model Fit Results

	Threshold	Model Fit	Indication
χ^2/df	2~5	3.50	Good
RMSEA	<.08	0.10	Poor
CFI	>.90	0.93	Good
PNFI	>.50	0.86	Good
GFI	>.90	0.93	Good
SRMR	<.08	0.07	Good

Note. Thresholds are adopted from "Structural equation modelling: Guidelines for determining model fit," by D. Hooper, J. Coughlan, and M. Mullen, 2008, *The Electronic Journal of Business Research Methods*, *6*(1), 53-60. Copyright 2008 by Academic Conferences.

Figure 3.3

Model Plot of CFA Results



Note. JC_72 = MPQ, JC_73 = CQ, JC_74 = SC.

In line with the CFA results, after the removal of certain items carrying a R^2 value less than 0.20, the model's figures improved drastically. It also led to partial improvement of each construct's Average Variance Extracted (AVE) and Composite Reliability (CR). Both

the CR and AVE were manually computed with guidance from Grande (2016) and Pattusamy (2021). Both researchers indicated that the AVE must be computed by first identifying the lambda (factor loading of each item per factor), squaring that value, then calculating the average of all the squared values together or summing the squared values then divide that summation by the number of items in that factor. The CR was computed by adding the lambda values, squaring the total value, then dividing it again by the squared total value plus the standard error ($1-\lambda^2$). The results are illustrated in Table 3.7. Every variable's Composite Reliability value should be more than 0.70, and the Average Variance Extracted value should be more than 0.50 (Sarstedt et al., 2021). The measures of multicultural personality traits, cultural intelligence, and social connectedness showed strong convergent validity, according to these research findings.

A quick scan of the table can give the reader more than enough information. The AVE column showed values well below the previously mentioned threshold. This was especially in line with the fact that while few items were removed, not all the items with a R^2 of below 0.20 were removed. This meant that the calculations included items with extremely low factor loadings. Hence the results depicted below. Personality traits had the lowest value, which received a poor AVE labelling. The results indicated that less than 50% (only 20%) of the items' variance were explained by the construct. SC reached slightly above the MPQ's AVE (0.33) but still below the threshold. CQ was the only construct that dominated with 0.72. The MPQ (0.84) and SC (0.82) indicated good CR. According to Sarstedt et al. (2021) values that are very high (over 0.95, for example) are troublesome since they imply that the items are overlapping and almost similar. Since CQ has a CR value of 0.98 it indicates that there might have been some similarities among the construct's items.

Table 3.7

Model of Convergent Validity

Variables	CR	AVE
Multicultural Personality Traits	0.84	0.20
Cultural Intelligence	0.98	0.72
Social Connectedness	0.82	0.33

Note. N=216.

Given the convergent validity was partially satisfied, the discriminant validity should be measured next. Again, Sarstedt et al. (2021) explained that the degree to which a concept

was experimentally different from other constructs is shown by this analysis, both in terms of how strongly it connects with other constructs and how clearly the indicators indicate only this one construct. It was analyzed using the heterotrait-monotrait ratio (HTMT) where the threshold should be 0.90 if constructs had a high level of resemblance and threshold of 0.85 if they were distinct theoretically (Henseler et al., 2015). This function was available in JASP, so Table 3.8 illustrates the results from that analysis

CQ and SC had a correlation coefficient of 0.649. MPQ and SC had a correlation value of 0.818. MPQ and CQ had a correlation coefficient of 0.875. In summary, this table provided information about how different constructs were related to each other. The higher the correlation coefficient, the stronger the association between these constructs. CQ and SC had the lowest correlation coefficient. MPQ and SC had the second highest correlation coefficient after that of, which had a correlation coefficient of 0.875. The findings indicated a moderately positive connection between CQ and SC, while MPQ and CQ had a strong positive correlation. The latter confirms Henseler et al. (2015) notion of constructs with a degree of resemblance having a higher value. Nonetheless, all the correlation values were within scope of a reasonable threshold.

Table 3.8

Model of Discriminant Validity (HTMT)

MPQ	CQ	SC
1.000		
0.875	1.000	
0.818	0.649	1.000

Note. N=216.

Descriptive Analysis

"By 'describe' we generally mean either the use of some pictorial or graphical representation of the data or the computation of an index or number designed to summarize a specific characteristic of a variable or measurement" (Cooksey, 2020, p. 61). This section included the data gathered from the demographic information: age, gender, and nationality.

Correlation Analysis

The primary objective of such a study was to ascertain the relationship between various variables. Since the Pearson correlation coefficient (r) was one of the most employed ways for determining a linear correlation, it was used in this study.

Regression Analysis

This study employed regression analysis to assess the evaluation of these variables and their interrelationships. The aim of the research was to determine if a link existed between the independent variable (multicultural personality) and the dependent variable (social connectedness) moderated by cultural intelligence. Regression analysis, both linear and hierarchical, were employed in this investigation to look at the moderating effect.

CHAPTER IV RESULTS AND DISCUSSION

This segment provided the result of statistical examination by using the newer user-friendly software, JASP, based on the questionnaire data collection from university students in Taiwan. The content in this chapter was separated keen on two primary segments i.e. a result section and discussion section. Starting from the descriptive statistics summarizing the profile of the respondents, ensued by analyzing Pearson correlation to determine the direction and magnitude of linear association amongst the utilized MPT dimensions, CQ and social connectedness. Next was the test for validity and reliability of the variables using reliability and confirmatory factor analysis, respectively. The first section ended with the verification of the moderating effect of CQ by using the linear regression analysis. The second section considered the summary and discussion from the analytical results.

Sample Profile Analysis

Based on 216 student respondents currently living in Taiwan, the descriptive analysis illustrated in Table 4.1 to 4.3 were employed to enhance comprehension of the background information collected. No missing data was found in this study. Although the mean age was 27 years old, Table 4.1 indicated that the majority of respondents ranged in age from 23 years and 30 years old. The twenty-five-year-olds were the most frequent, holding 33 students (15.3%) of the entire sample. This was followed by the 26-year-olds with twenty- nine respondents (13.4%). There were twenty respondents who were 23-year-olds (9.3%), which was closely followed by the thirty-year-olds who had 19 respondents (8.7%). Both the youngest, 19-year-old, and oldest, 42-year-old, respondents had a total of one each, which was 0.5% of the sample. Aside from the age, according to the results in Table 4.2, the males dominated the females in a ratio of five to four or 120 (55.6%) to 96 (44.4%), respectively.

This research also incorporated the nationality of the respondents, exemplified in Table 4.3, which generated 23 countries total, including Taiwan. Of the 216 respondents, 62 (28.7%) were Taiwanese while the remainders were considered international students, which tallied to 154 (71.3%). Table 4.2 indicated that the latter was distributed as follows: Latin America and Caribbean countries were Belize- 12 (5.6%), Guatemala- 2 (.9%), Haiti- 1 (.5%), Honduras- 1 (.5%), Jamaica-1 (.5%), St. Vincent-3 (1.4%), St. Lucia- 1 (.5%), and Mexico- 1 (.5%); Asian countries were China- 9 (4.2%), Hong Kong- 1 (.5%), India- 4 (1.9%), Indonesia- 24 (11.1%), Malaysia- 21 (9.7%), Myanmar- 1 (.5%), Philippines- 38 (17.6%), Singapore- 2 (.9%), Thailand- 25 (11.6%), and Vietnam- 1 (.5%); European

countries were France- 2 (.9%) and Germany- 1 (.5%); lastly, the US had 2 respondents (.9%).

Table 4.1

Descriptive Statistics on Background Information- Age

Age	Frequency	Percent	Cumulative Percent
19	1	0.463	0.463
20	1	0.463	0.926
21	2	0.926	1.852
22	8	3.704	5.556
23	20	9.259	14.815
24	16	7.407	22.222
25	33	15.278	37.500
26	29	13.426	50.926
27	11	5.093	56.019
28	16	7.407	63.426
29	8	3.704	67.130
30	19	8.796	75.926
31	6	2.778	78.704
32	11	5.093	83.796
33	17	7.870	91.667
34	12	5.556	97.222
35	2	0.926	98.148
36	1	0.463	98.611
38	1	0.463	99.074
40	1	0.463	99.537
42	1	0.463	100.000

Note. N= 216

Table 4.2

Descriptive Statistics on Background Information- Gender

Gender	Frequency	Percent	Cumulative Percent
1	96	44.444	44.444
2	120	55.556	100.000

Note. N= 216; 1= Female; 2= Male.

Table 4.3

Descriptive Statistics on Background Information- Nationality

Country	Frequency	Percent	Valid Percent	Cumulative Percent
Belize	12	5.556	5.556	5.556
China	9	4.167	4.167	9.722
France	2	0.926	0.926	10.648
Germany	1	0.463	0.463	11.111
Guatemala	2	0.926	0.926	12.037
Haiti	1	0.463	0.463	12.500
Honduras	1	0.463	0.463	12.963
Hong Kong	1	0.463	0.463	13.426
India	4	1.852	1.852	15.278
Indonesia	24	11.111	11.111	26.389
Jamaica	1	0.463	0.463	26.852
Malaysia	21	9.722	9.722	36.574
Mexico	1	0.463	0.463	37.037
Myanmar	1	0.463	0.463	37.500
Philippines	38	17.593	17.593	55.093
Singapore	2	0.926	0.926	56.019
Spain	1	0.463	0.463	56.481
St. Lucia	1	0.463	0.463	56.944
St. Vincent	3	1.389	1.389	58.333
Taiwan	62	28.704	28.704	87.037
Thailand	25	11.574	11.574	98.611
USA	2	0.926	0.926	99.537
Vietnam	1	0.463	0.463	100.000

Note. N= 216.

Results of Pearson Correlation Analysis

In the previous chapter of Methodology, it was outlined that age, gender, and nationality were used as control variables in this study. These said controls were observed against the primary variables of multicultural personality traits, cultural intelligence, and

social connectedness. It was necessary to conduct a Pearson Correlation testing to understand the associations between the constructs better. The correlation coefficients and p-values among the variables were depicted in Table 4.4.

The conclusions illustrated that of the three control variables, age was the only one to have a positive significance with cultural empathy (r=.23, p <.001), open mindedness (r=.18, p <.001), overall MPQ (r=.21, p <.001), CQ (r=.29, p <.001), and SC (r=.19, p <.01). SI was the only dimension that was not significantly correlated to age. The control variables did not correlate to each other and aside from age, both gender and origin had a mostly positive though weak correlation with the other variables. However, they were all insignificant.

In assessing the primary variables, all of them were significantly and positively correlated. CE had a moderate positive correlation with OM (r=.69, p <.001), SI (r=.52, p <.001), the moderating variable of CQ (r=.63, p <.001) and lastly, CE and the dependent variable of SC were also positively correlated (r=.39, p <.001). OM and SI were moderately correlated (r=.59, p <.001). The correlation between CQ and OM (r=0.75, p <.001) and SI (r=.68, p <.001) ranges from significantly moderate to high positive. Like OM and SI, CQ also had a significantly low positive to moderate correlation with SC as (r=.45, p <.001), (r=.23, p <.001), and (r=.46, p <.001), respectively.

Table 4.4

Pearson's Correlations of the Main Study

Variable		1	2	3	4	5	6	7	8	9
1. Age	Pearson's r	—								
	p	—								
2. Gender	Pearson's r	0.018	—							
	p	0.788	—							
3. Nationality	Pearson's r	-0.054	0.092	—						
	p	0.426	0.180	—						
4. CE	Pearson's r	0.226***	-0.033	-0.065	—					
	p	< .001	0.625	0.345	—					
5. OM	Pearson's r	0.176**	0.018	0.008	0.692***	—				
	p	0.010	0.788	0.909	< .001	—				
6. SI	Pearson's r	0.110	0.053	0.076	0.523***	0.594***	—			
	p	0.106	0.443	0.265	< .001	< .001	—			
7. MPQ	Pearson's r	0.205**	0.010	-2.798×10^{-4}	0.883***	0.895***	0.791***	—		
	p	0.003	0.886	0.997	< .001	< .001	< .001	—		
8. CQ	Pearson's r	0.286***	0.085	0.004	0.634***	0.750***	0.679***	0.797***	—	
	p	< .001	0.211	0.956	< .001	< .001	< .001	< .001	—	
9. SC	Pearson's r	0.186**	-0.114	0.039	0.390***	0.454***	0.234***	0.428***	0.462***	—
	p	0.006	0.094	0.566	< .001	< .001	< .001	< .001	< .001	—

Note. N=216. * $p < .05$, ** $p < .01$, *** $p < .001$, CE- Cultural Empathy, OM- Open Mindedness, SI- Social Initiative, MPQ- Multicultural Personality Questionnaire, CQ- Cultural Intelligence, SC- Social Connectedness

Hypothesis Testing Analysis

An analysis of hierarchical regression and Hayes PROCESS (beta) was conducted to explore the association relating to the MPT of CE, SI, and OM, as well as cultural intelligence and social connectedness. These assessments were steered to decide if the hypotheses proposed were supported or not supported, based on the controlled variables of age, gender, and origin.

The first regression conducted was to test hypothesis 1 which was that multicultural personality traits will exhibit a significant relationship with social connectedness. This was then followed by another table/ analysis examining the correlation between H1 (a) cultural empathy (b) social initiative, and (c) open mindedness on the dependent variable of SC.

In ascertaining the prior, Table 4.5 demonstrated SC was regressed on MPQ and the control variables. The model indicates an acceptable independence of errors, Durbin-Watson= 1.08. The overall regression was significant: F (4, 211) = 14.07, p<.001. The model fairly explains about 21.1% of the variance in SC (*Adj* R^2 = 0.19). The table also distributes the information about the regression coefficients for the predictors. It was a moderate positive relationship, which indicated that MPQ was a significant predictor to SC. So, it can be stated that students' personality traits have an impact on how comfortable and self-assured they are in social settings. The result was (β=0.40, p <.001). The control variables had an extremely weak correlation to MPQ but were all insignificant, except for gender, particularly the males. They had a negative but significant relationship to SC. Nonetheless, Hypothesis 1 was satisfied.

Table 4.5

Result of Regression Analysis for the Effect of Multicultural Personality Traits on Social Connectedness

					Durbin-Watson		
Model	*R*	*R²*	*Adjusted R²*	RMSE	Autocorrelation	Statistic	*p*
H_0	0.000	0.000	0.000	0.533	0.520	0.950	< .001
H_1	0.459	0.211	0.196	0.478	0.454	1.082	< .001

Model		Sum of Squares	df	Mean Square	F	*p*
H_1	Regression	12.841	4	3.210	14.070	< .001
	Residual	48.144	211	0.228		
	Total	60.985	215			

Model		Unstandardized	Std. Error	Standardized	t	*p*
H_0	(Intercept)	3.641	0.036		100.474	< .001
H_1	(Intercept)	1.747	0.302		5.790	< .001
	MPQ	0.479	0.074	0.407	6.509	< .001
	Age	0.014	0.008	0.108	1.725	0.086
	Gender (2)	-0.134	0.066		-2.042	0.042
	Nationality (1)	0.067	0.072		0.923	0.357

Note. N=216. MPQ = Multicultural Personality Questionnaire, Gender (2) = Male, Nationality (1) = International students.

When assessing the MPQ dimensions for H1 (a), (b), and (c), again controlling for the variables, the overall regression was also significant: F (6, 209) = 11.44, p<.001. Based on the Dublin-Watson's value, there was also an acceptable independence of errors (1.18). The model fairly explains about 24.7% of the variance in SC (Adj R^2 = 0.22). Although the model's regression indicated a statistical significance, the coefficients indicated the opposite. Both CE and SI were not meaningful predictors to SC. SI was the only negatively related predictor and the relationship was insignificant (β= -0.08, *n.s*). OM was both a positive and significant predictor to SC (β=0.38, *p* <.001). This showed that as students became more objective living among the new culture, their social connectedness increased. On the other hand, CE had a positive but an insignificant relationship with SC (β=0.14, *n.s*). These were

depicted in Table 4.6. It can be concluded that Hypothesis 1(a) CE will have a positive effect on SC, was not satisfied. Hypothesis 1 (b) SI will have a positive effect on SC, was not satisfied. Hypothesis 1 (c) OM will have a positive effect on SC, was satisfied.

Table 4.6

Result of Regression Analysis for the Effect of Cultural Empathy, Open mindedness, and Social Initiative on Social Connectedness

					Durbin-Watson		
Model	*R*	R^2	*Adjusted* R^2	RMSE	Autocorrelation	Statistic	*p*
H_0	0.000	0.000	0.000	0.533	0.520	0.950	< .001
H_1	0.497	0.247	0.226	0.469	0.404	1.187	< .001

Model		Sum of Squares	df	Mean Square	F	*p*
H_1	Regression	15.085	6	2.514	11.448	< .001
	Residual	45.900	209	0.220		
	Total	60.985	215			

Model		Unstandardized	Std. Error	Standardized	t	*p*
H_0	(Intercept)	3.641	0.036		100.474	< .001
H_1	(Intercept)	1.968	0.310		6.353	< .001
	CE	0.127	0.078	0.141	1.631	0.104
	OM	0.381	0.088	0.388	4.313	< .001
	SI	-0.096	0.092	-0.080	-1.040	0.300
	Age	0.013	0.008	0.101	1.630	0.105
	Gender (2)	-0.129	0.065		-1.994	0.048
	Nationality(1)	0.080	0.072		1.115	0.266

Note. N=216, CE= Cultural Empathy, OM= Open Mindedness, SI= Social Initiative Gender, (2) = Male; Nationality (1)= International students.

To test for hypothesis 2, CQ has a positive effect on social connectedness, another regression analysis was conducted, controlling for the variables. Like the aforementioned analyses, this model was also portrayed to possess an adequate independence of errors based on the Durbin-Watson figure, 1.15. Assessing the regression between CQ and SC, there was a low 24.4% of variance that can be explained (Adj $R^2 = 0.22$). This overall regression value was also significant: F (4, 211) = 16.98, p<.001. CQ as a predictor though, had a rational and positive, significant relationship with SC. Table 4.7 showed (β=0.45, p <.001). While the control variables of age and nationality had a positive relationship, they were both insignificant. Gender, like in the previous analyses, had a significant but negative relationship to SC. Focusing back on CQ, hypothesis 2 has been supported.

Table 4.7

Result of Regression Analysis for the Effect of Cultural Intelligence on Social Connectedness

					Durbin-Watson	
Model	*R*	*R²*	*Adjusted R²*	RMSE	Autocorrelation	Statistic	*p*
H_0	.00	.00	.00	0.53	0.52	0.95	< .001
H_1	0.49	0.24	0.22	0.47	0.42	1.15	< .001

Model		Sum of Squares	df	Mean Square	F	*p*
H_1	Regression	14.85	4	3.71	16.98	< .001
	Residual	46.13	211	0.22		
	Total	60.99	215			

Model		Unstandardized	Std. Error	Standardized	t	*p*
H_0	(Intercept)	3.641	0.036		100.474	< .001
H_1	(Intercept)	2.289	0.250		9.172	< .001
	CQ	0.279	0.038	0.458	7.308	< .001
	Age	0.008	0.008	0.061	0.969	0.334
	Gender (2)	-0.171	0.065		-2.645	0.009
	Nationality(1)	0.065	0.071		0.921	0.358

Note. CQ = Cultural Intelligence, Gender (2) = Male; Nationality (1) = International students.

The [Hayes] Process model (beta) in JASP was utilized to examine if a moderating effect exists. This was to test if hypothesis 3: Cultural intelligence moderated the connection among personality traits and social connectedness, was valid or not. The results outlined in Table 4.8 illustrated a moderating effect did exist. This came after the fact that individually both MPQ and CQ had a negative relation to SC. Conversely, the final row of the path coefficients table showed the significant, positive interaction between MPQ and CQ on SC (β=0.19, *SE*= 0.04, p <.001). Collectively, they indicated not only a satisfied moderation and hypothesis 3, but that CQ does strengthen the relationship between MPQ and SC.

Table 4.8

Result of Moderation Analysis of Cultural Intelligence on Multicultural Personality Traits and Social Connectedness

	Hayes model number	AIC	BIC	Log-likelihood	n	df
Model 1	1	275.870	289.372	-133.935	216	0

Path coefficients

						95% Confidence Interval	
		Estimate	Std. Error	z-value	*p*	Lower	Upper
MPQ	→ SC	-0.541	0.205	-2.634	< .001	-1.884	-1.193
CQ	→ SC	-0.348	0.142	-2.455	< .001	-1.567	-1.090
MPQ:CQ	→ SC	0.185	0.044	4.254	< .001	0.289	0.436

Note. N= 216, CQ = Cultural Intelligence, MPQ = Multicultural Personality Questionnaire, SC = Social Connectedness.

Discussion

This research's leading goal was to investigate the connections among university students now studying in Taiwan in terms of multicultural personality characteristics, cultural intelligence, and social connectivity. All the preceding hypothesis' findings have been thoroughly investigated in this part, along with any logical conclusions. Table 4.9 displayed a summary of the findings of the hypothesis testing.

In conducting the regression analyses, the controlled variables were the participants' age, gender, and nationality. The Pearson's correlations results demonstrated that only age had a positive, significant relationship with CE, OM, MPQ (average of the three dimensions), CQ, and SC. The other two controlled variables were not found to have any relations with the

primary variables or with each other. Furthermore, neither age nor nationality impacted students' level of social connectedness when tested against MPQ and CQ. In their study, Duru and Poyrazli (2011) also did not find any correlation between age and SC. Gender, on the other hand, especially the males, was found to have a significant relationship in the three analyses.

The Pearson's Correlation analysis also shed light on the course of the tested hypotheses. Involving the predictor and outcome variables, there was a significantly positive, moderate relationship. The regression analysis reiterated that point, for every one-standard-deviation increase in a student's personality trait, SC also increased by 0.47 standard deviations. A positive relationship, which can further be interpreted as the overall responses direct to higher levels of overall personality traits and SC. When it came to age, the data showed that for every year older, social connectedness nudges up a bit. Males (coded as 2) seemed to have slightly lower social connectedness than females. Lastly, different nationalities brought their own interests. Some boosted social connectedness, while others kept it steady.

To test whether CE, OM, and SI had a positive relationship or not with SC, a regression analysis was performed. Earlier Pearson's correlation illustrated that a positive and significant relation was present. The regression, on the other hand, was a tad opposite. CE displayed a weak, positive correlation but it was insignificant. The results indicated that a single standard-deviation increase in CE corresponds to a 0.127 standard-deviation increase in social connectedness. So, the higher the ability to empathize with others, the higher the ability to socially connect. An increase in OM, which refers to objectivity of the new setting, displayed an increase in SC. When students' minds are open, their social connectedness blossoms.

While CE and OM did show a positive relationship to social connectedness, SI exhibited an insignificant, negative relationship. When considering standard deviations, a one-standard-deviation decrease in SI, the tendency to establish an interaction than wait, corresponded to a -0.096 standard-deviation decrease in social connectedness. Its negative coefficient suggests caution. Maybe some initiatives unintentionally create distance? Or perhaps it's a statistical hiccup. Age and origin did not show any statistically significant effects on social connectedness as their p value was not significant. Gender, though a

negative relationship, indicated that for every one standard deviation in the males, social connectedness decreased by a -0.129 standard-deviation.

Previous studies revealed that SC and CQ were found to have a positive significant relationship with each other (Chen et al., 2021; Hong et al., 2021). Hence, this research attempted to discover if in turn, CQ would have a positive effect on SC. Hypothesis 2 extended the notion that CQ had a positive relationship on SC. The result from the analysis was in favor of this notion as a positive, significant value was generated. In practical terms, individuals with higher cultural intelligence may experience an enhanced level of social connectedness.

CQ described the manner in which an individual, in this study a student, reacts when positioned in an unfamiliar, sundry setting (Ang & van Dyne, 2008; Earley & Ang, 2003; Malay et al., 2023). If the student was unable to acquire substantial cultural knowledge via education (cognitive CQ), experience motivation to adjust to their new surroundings (motivational CQ), successfully assimilating into a new cultural environment requires mastering relevant cultural behaviors (behavioral CQ), developing strategies to manage stress, and fostering an open-minded attitude (metacognitive CQ) (Chen et al., 2021) then it would be foreseeable that they have a deep-seated sense of disconnection from others, which hinders their capacity to engage with society at large (Lee et al., 2001). For this study, however, that was not the case.

While the three prior hypotheses have been addressed, the final was that CQ moderated the association involving MPQ and SC. The direct effect from MPQ and CQ were both negative but significant. However, collectively the relationship resulted in a moderate, positive moderating effect.

Table 4.9

Summary Results of Hypothesis Testing

Hypothesis		Result
H1	Multicultural personality traits exhibited a significant relationship with social connectedness.	Supported
H1(a)	The multicultural personality trait of cultural empathy exhibited a positive relationship with social connectedness.	Not Supported
H1(b)	The multicultural personality trait of social initiative exhibited a positive relationship with social connectedness.	Not Supported
H1(c)	The multicultural personality trait of open mindedness exhibited a positive relationship with social connectedness.	Supported
H2	CQ had a positive effect on social connectedness.	Supported
H3	Cultural intelligence moderated the connection among personality traits and social connectedness.	Supported

CHAPTER V CONCLUSIONS AND SUGGESTIONS

Upon reviewing the findings from the earlier sections, the researcher summarized the key points of the study. The next section will cover the conclusion, discussion, practical implications, limitations, and recommendations.

Conclusions

This study's rationale was to address these three primary research questions of (1) will multicultural personality traits have a significant relationship with social connectedness? (2) does CQ have a positive effect on social connectedness? and (3) will cultural intelligence moderate the affiliation concerning multicultural personality traits and social connectedness? These questions were answered using Pearson's correlation, regression, and process analysis. Subsequently, the results were explained.

Multicultural personality traits being a positive, significant predictor to social connectedness signaled in totality, a student's innate characteristics does impact the manner of how they interact with the social world before them. Since three dimensions were used, the data revealed that the student participants' increase in openness and acceptance of the new culture (OM) and their ability to empathize (CE) with said culture, resulted in a similar increase in their level of social connectedness. On the other hand, it appeared that these students were not necessarily interested, brazen, or comfortable, among other options, to strike up a conversation with others (SI). A lack in that area led to a negative connection with the students' level of social connectedness.

Furthermore, in relation to these students' successful ability to operate in Taiwan's culturally diverse setting (CQ), the data uncovered a positive relationship with SC. Simply put, those with a high/ acceptable level of CQ were able to have a better sense of belonging, living in Taiwan. This meant the students understood the culture, were motivated to converse, aware of cultural systems, and knew how to act and react when interacting. Those gestures played a role in the students' ability to form new relationships and certainly garner a feeling of fitting in. CQ was not only a positive predictor on SC, it conveyed a bigger purpose as it also positively and significantly moderated the relationship between the personality traits and SC.

Though a moderate to high significant correlation was established among the prior stated variables, that did not equate to all of them being a positive significant predictor to the

dependent variable, SC. With that said, hypothesis 1 was supported as there was a positive, significant relationship between both the independent and dependent variables, MPQ and SC. The three sub- hypotheses for Hypothesis 1 delved into the dimensions of MPQ, which were predicted to each have a positive relationship with SC. OM was the only statistically supported dimension. CE and SI were both insignificant predictors. Additionally, hypothesis 2 was also supported. CQ did have a positive, significant relationship to SC. This of course, led to a positive moderating effect among MPQ, CQ, and SC, which concluded that hypothesis 3 has also been supported.

Implications

Theoretical Implications

This research deviated from the existing literature as it tried to present new and unchartered directions. It attempted to establish a relationship between the MPT (tested via utilization of MPQ) and social connectedness (SC). Additionally, it predicted that there will be a moderating effect when cultural intelligence (CQ) was added. Previous research viewed SC as a mediator (Lee et al., 2008), an independent variable (Chen et al., 2021; Hong et al., 2021) having CQ as the moderator/mediator or independent variable in said research. In other cases of SC and personality traits, Zainab and Mohanan (2021) SC and the Big Five traits. This research, incorporating these three variables, brought a new perspective to the forefront.

Secondly, there was a lack of extensive research that simultaneously focuses on both local residents and foreign students; most studies have concentrated just on international students trying to acclimate to a new country. The amount of knowledge on the related elements has been expanded by the study's findings. Moreover, it paves the way for a fresh direction of exploration in future studies on Taiwan's utilization of multicultural personalities and social connectivity.

Practical Implications

In the beginning, it was mentioned that one of the goals of this research was to modify course/ program’s syllabus and attitudes or views of those in the educational sector. The findings presented that overall MPQ led to an increase in SC, but SI was shown to have a decrease in SC. To aid in creating a comfortable space for students to approach others, there should be provision of some type of mandatory cross-cultural course of assistance for both international and local students at the start of the first semester.

This study was centered on students as participants, which meant that Taiwan's Ministry of Education (MoE) was a stakeholder in provision of practical implications. This is especially because in a most recent publication, there was reference of two important factors as to why students should study in Taiwan. The first was "the number of international students in Taiwan has been steadily increasing over the years" (Ministry of Education Republic of China (Taiwan) [MoE Taiwan], 2024, p. 4). It was extended into an advantage of studying in Taiwan. The MoE Taiwan (2024) stated the country's "evolving mix provides international students with a unique opportunity to immerse themselves in a dynamic cultural interplay, gaining insights into the fusion of tradition and modernity" (p. 6).

With the frequent promotions created by the MoE to encourage international students to study in Taiwan, undoubtedly this implication was directed towards the ministry's higher education sector. This study found that as a control variable, international students particularly, had an insignificant, low positive relationship with social connectedness. To increase this relationship, especially the students' level of social initiative, MoE can create more activities or events to promote meaningful cultural bonds among students. An initiative that would require assistance from the individual universities or on a microlevel, the university departments that seek enrollment from both international and local students. The said department/ university will in turn gain popularity in the international community for future enrollment of others.

Limitations and Future Research Suggestions

Like much other research, this study also faced some limitations. Firstly, the study might have been able to yield different results if there was a near balance in the demographic data of gender or origin. Surprisingly, there were more (a slight margin) male participants than females. Also, the international student respondents doubled the Taiwanese respondents. This can indicate more of an international voice than a balance of the two. Future researchers, especially in a multilingual setting, can opt for the survey instrument to be in at least two languages to cater to the respondents' comfortability in their native language. In addition to the difference in results, a larger sample would have been able to obtain better scores for the fit indices, reliability, and validity scores of both the pilot and main study. Future research can focus on gathering more respondents, which the prior suggestion can aid with.

To add, the number of items in the survey might have also contributed to some irregularities or dishonesty when responding. There was a total of 64 items from the

measured constructs, which might have been exhausting for participants, though it was digitalized, which was also addressed by Sousa et al. (2019). Future research can adopt an adjusted form of the MPQ like van Niejenhuis et al. (2018) or shorter [original/ unrevised] scales as Duru and Poyrazli (2011). However, for a more thorough insight of the traits linked to any variable being evaluated, it is advisable to use the complete abbreviated version of the MPQ.

Furthermore, yet in line with the measurement, the SCS-R had negatively worded items. Of the twenty items, 10 were positively worded items, while the balance was negatively worded. Future research should take this into account when coding the data as the results obtained from the analysis will be poor once wrongly coded. Another limitation was the inadequate AVE results.

Next, this research incorporated the JASP software for analyzing the data. It was not as popular as SPSS and new to the researcher, but less complicated than its predecessor. Further assistance was needed, which was lacking to an extent, especially finding research that also incorporated this unfamiliar software. Future research can attempt to utilize this software or simply, adhere to the one they are more familiar with. Lastly, this research focused solely on MPQ, CQ on social connectedness. This was the first research associating MPQ and SC, so there was no prior to compare the findings to. However, while this study revealed a notable correlation between the variables, certain aspects (CE and OM) did not effectively predict outcomes. Hence, it is recommended to conduct more extensive research in this field.

REFERENCES

Ang, S., & Van Dyne, L. (2008). Conceptualization of cultural intelligence: Definition, distinctiveness, and nomological network. In S. Ang, & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 1-414). Taylor & Francis Group.

Ang, S., Van Dyne, L., & Koh, C. (2006). Personality correlates of the Four-Factor Model of cultural intelligence. *Group & Organization Management, 31*(1), 100-123. doi:10.1177/1059601105275267

Ang, S., Van Dyne, L., & Rockstuhl, T. (2015). Cultural intelligence: Origins, conceptualization, evolution, and methodological diversity. In M. J. Gelfand, C.-y. Chui, & Y.-y. Hong (Eds.), *Handbook of advances in culture and psychology* (Vol. 5, pp. 273-323). Oxford University Press. doi:10.1093/acprof:oso/9780190218966.001.0001

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review, 3*(3), 335-371. doi:10.1111/j-l 740-8784.2007.00082.X

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Bernard, A. B., & Presbitero, A. (2017). Belief in polyculturalism and cultural intelligence: Individual and country-level differences. *Personality and Individual Differences, 117,* 307-310. doi:10.1016/j.paid.2017.08.006

Bethel, A., Ward, C., & Fetvadjiev, V. H. (2020). Cross-cultural transition and psychological adaptation of international students: The mediating role of host national connectedness. *Frontiers in Education, 5*(5), 1-12. doi:10.3389/feduc.2020.539950

Beutler, L. E., Rosner, R., Groth-Marnat, G., Hardwood, T. M., & Tong, H.-Q. (2011). Introduction to integrative assessment of adult personality. In T. M. Hardwood, L. E. Beutler, & G. Groth-Marnat, *Integrative Assessment of Adult Personality* (pp. 1-33). New York: The Guilford Press.

Brancu, L., Munteanu, V., & Golet, I. (2016). Understanding cultural intelligence factors among business students in Romania. *Procedia - Social and Behavioral Sciences, 221*, 336-341. doi:10.1016/j.sbspro.2016.05.123

Cervone, D., & Pervin, L. A. (2023). *Personality: Theory and research* (15th ed.). John Wiley & Sons.

Chao, M. M., Takeuchi, R., & Farh, J.-L. (2017). Enhancing cultural intelligence: The roles of implicit culture beliefs and adjustment. *Personnel Psychology, 70*(1), 257-292. doi:10.1111/peps.12142

Chen, A. S.-y., Lin, G.-h., & Yang, H.-w. (2021). Staying connected: Effects of social connectedness, cultural intelligence, and socioeconomic status on overseas students' life satisfaction. *International Journal of Intercultural Relations, 83*, 151-162. doi:10.1016/j.ijintrel.2021.06.002

Connor-Smith, J. K., & Flachsbart, C. (2007). Relations between personality and coping: A meta-analysis. *Journal of Personality and Social Psychology, 93*(6), 1080-1107. doi:10.1037/0022-3514.93.6.1080

Cooksey, R. W. (2020). Descriptive statistics for summarising data. In *Illustrating statistical procedures: Finding meaning in quantitative data* (pp. 61-139). Springer. doi:10.1007/978-981-15-2537-7_5

Duru, E., & Poyrazli, S. (2011). Perceived discrimination, social connectedness, and other predictors of adjustment difficulties among Turkish international students. *International Journal of Psychology, 46*(6), 446-454. doi:10.1080/00207594.2011.585158

Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures.* Stanford University Press.

Fang, F., Schei, V., & Selart, M. (2018). Hype or hope? A new look at the research on cultural intelligence. *International Journal of Intercultural Relations, 66*, 148-171. doi:10.1016/j.ijintrel.2018.04.002

Farooq, R. (2022). Heywood cases: Possible causes and solutions. *Int. J. Data Analysis Techniques and Strategies, 14*(1), 79-88. doi: 10.1504/IJDATS.2022.10045654

Fiske, D. W. (1988). From inferred personalities toward personality in action. *Journal of Personality, 56*(4), 815-833. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1467-6494.1988.tb00478.x/abstract

Graduate Institute of International Human Resource Development [IHRD]. (2021). *International Human Resource Development: 2021 Student Handbook.* Taipei.

Grande, T. (2016, December). Average variance extracted and composite reliability after factor analysis using SPSS and excel [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=8tyjdfpiAJQ

Hendrickson, B., Rosen, D., & Aune, R. K. (2011). An analysis of friendship networks, social connectedness, homesickness, and satisfaction levels of international students. *International Journal of Intercultural Relations, 35*(3), 281-295. doi:10.1016/j.ijintrel.2010.08.001

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115-135. doi:doi.org/10.1007/s11747-014-0403-8

Hofhuis, J., Jongerling, J., van der Zee, K. I., & Jansz, J. (2020). Validation of the Multicultural Personality Questionnaire Short Form (MPQ-SF) for use in the context

of international education. *PLoS ONE, 15*(12), 1-14. doi:10.1371/journal.pone.0244425

Holgado-Tello, F. P., Morata-Ramírez, M. Á., & García, M. I. (2018). Confirmatory factor analysis of ordinal variables: A simulation study comparing the main estimation methods. *Avances en Psicología Latinoamericana, 36*(3), 601-617. doi:10.12804/revistas.urosario.edu.co/apl/a.4932

Hong, K. T., Ng, S. I., & Lai, P. S. (2021). International students' cross-cultural adjustment: Determining predictors of cultural intelligence. *Indonesian Journal of Social Research, 3*(1), 27-47. doi:10.30997/ijsr.v2i3.82

Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structual equation modelling: Guidelines for determing model fit. *The Electronic Journal of Business Research Methods, 6*(1), 53-60. Retrieved from https://www.researchgate.net/publication/254742561_Structural_Equation_Modeling_Guidelines_for_Determining_Model_Fit

Hu, L.-t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives . *Structural Equation Modeling, 6*(1), 1-55. doi:10.1080/10705519909540118

Kadam, R., Rao, S., Abdul, W. K., & Jabeen, S. S. (2020). A comprehensive examination of antecedents of cultural antecedents of cultural intelligence amongst students: Testing the moderation effect of third culture kids. *International Journal of Educational Management, 34*(2), 245-262. doi:10.1108/IJEM-10-2018-0331

Kimberlin, C. L., & Winterstein, A. G. (2008). Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacy, 65*, 2276-2284. doi:10.2146/ajhp070364

Kumar, R. (2014). *Research methodology: A step by step guide for beginners* (4th ed.). Sage Publications Ltd.

Lee, R. M., & Robbins, S. B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. *Journal of Counseling Psychology, 42*(2), 232-241.

Lee, R. M., & Robbins, S. B. (1998). The relationship between social connectedness and anxiety, self-esteem, and social identity. *Journal of Counseling Psychology, 45*(3), 338-345. Retrieved from https://psycnet.apa.org/record/1998-04269-011

Lee, R. M., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of Counseling Psychology, 48*(3), 310-318. doi:10.1037/0022-0167.48.3.310

Lee, R., Dean, B. L., & Jung, K.-R. (2008). Social connectedness, extraversion, and subjective well-being: Testing a mediation model. *Personality and Individual Differences, 45*, 414-419. doi:10.1016/j.paid.2008.05.017

Leong, C.-H. (2007). Predictive validity of the Multicultural Personality Questionnaire: A longitudinal study on the socio-psychological adaptation of Asian undergraduates

who took part in a study-abroad program. *International Journal of Intercultural Relations, 31*(5), 545-559. doi:10.1016/j.ijintrel.2007.01.004

Lin, X., & Shen, G. Q. (2019). How formal and informal intercultural contacts in universities influence students' cultural intelligence? *Asia Pacific Education Review, 21*(2), 245-259. doi:10.1007/s12564-019-09615-y

Malay, E. D., Otten, S., & Coelen, R. J. (2023). Predicting adjustment of international students: The role of cultural intelligence and perceived cultural distance. *Research in Comparative & International Education, 18*(3), 485-504. doi:10.1177/17454999231159469

Mansuri, L. J. (2014). Exploring reciprocity between cultural intelligence and cross cultural sensitivity. *International Journal of Humanities and Social Science, 4*(1), 263-266. doi:10.30845/ijhss

Ming, L. (2020). An examination of two major constructs of cross-cultural competence: Cultural intelligence and intercultural competence. *Personality and Individual Differences, 164*(1), 1-6. doi:10.1016/j.paid.2020.110105

Ministry of Education Republic of China (Taiwan) [MoE Taiwan]. (2024). *Study in Taiwan 2024-2025.* Retrieved from Ministry of Education Republic of China (Taiwan): https://www.studyintaiwan.org/upload/file/Study_in_Taiwan_(2024-2025)%E5%A3%93%E7%B8%AE%E6%AA%94.pdf

Ministry of Education, Republic of China- Taiwan [MOE]. (2024, January 16). *Statistical Indicators.* Retrieved from Ministry of Education, Republic of China (Taiwan): https://english.moe.gov.tw/cp-86-18943-e698b-1.html

Mohamad, M. M., Sulaiman, N. L., Sern, L. C., & Salleh, K. M. (2015). Measuring the validity and reliability of research instruments. *Procedia-Social and Behavioral Sciences, 204*, 164-171. doi:10.1016/j.sbspro.2015.08.129

Pattusamy, M. (2021, December). Confirmatory factor analysis and structural equation modeling (CFA and SEM) using JASP software [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=hHqM4FTSqY4&t=977s

Podsakoff, P. M., Mackenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879-903. doi:10.1037/0021-9010.88.5.879

Presbitero, A. (2015). Cultural intelligence (CQ) in virtual, cross-cultural interactions: Generalizability of measure and links to personality dimensions and task performance. *International Journal of Intercultural Relations, 50,* 29-38. doi:10.1016/j.ijintrel.2015.11.001

Remhof, S., Gunkel, M., & Schlaegel, C. (2014). Goodbye Germany! The influence of personality and cognitive factors on the intention to work abroad. *The International Journal of Human Resource Management, 25*(16), 2319-2343. doi:10.1080/09585192.2014.884613

Rogers, P. (2023). Best Practices for your Confirmatory Factor Analysis: A JASP and lavaan Tutorial., (pp. 1-44). doi:10.31219/osf.io/57efj

Ruben, B. D. (1976). Assessing communication competency for intercultural aaptation. *Group & Organization Management, 1*(3), 334-354. doi:10.1177/105960117600100308

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211.

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In C. Homburg, M. Klarmann, & A. Vomberg (Eds.), *Handbook of market research* (pp. 1-47). doi:doi.org/10.1007/978-3-319-05542-8_15-2

Sea-jin, C., Arjen, v. W., & Lorraine, E. (2010). From the Editors: Common method variance in international business research. *Journal of International Business Studies, 41*, 178-184. doi:10.1057/jibs.2009.88

Si, K., Dai, X., & Wyer, R. S. (2021). The friend number paradox. *Journal of Personality and Social Psychology, 120*(1), 84-98. doi:10.1037/pspi0000244

Sousa, C., Gonçalves, G., Santos, J., & Orgambídez-Ramos, A. (2019). The relationship between multicultural competencies and intercultural contact: Multicultural personality and cultural intelligence. *Psicologia & Sociedade, 31*, 1-17. doi:10.1590/1807-0310/2019v31166867

Sousa, M., Fontão, E., Machado, I., Mendonça, J., Rodrigues, J., & Freitas, C. (2023). Assessing cultural intelligence and its antecedents in the Portuguese higher education context. *Education Sciences 2023, 13*(6), 1-22. doi:10.3390/educsci13060546

Sternberg, R. J., Siriner, I., Oh, J., & Wong, C. H. (2022). Cultural intelligence: What is it and how can it effectively be measured. *Journal of Intelligence, 10*(3), 1-19.

Sternberg, R. J., Wong, C. H., & Kreisel, A. P. (2021). Understanding and assessing cultural intelligence: Maximum-performance and typical-performance approaches. *Journal of Intelligence, 9*(3), 1-18. doi:10.3390/jintelligence9030045

Steyn, R., & Solomon, A. (2017). Cultural intelligence: Concepts and definition statements. *South African Journal of Business Management, 48*(2), 67-74. doi:10.4102/sajbm.v48i2.29

van der Zee, K. I., & van Oudenhoven, J. P. (2000). The Multicultural Personality Questionnaire: A multidimensional instrument of multicultural effectiveness. *European Journal of Personality, 14*, 291-309. doi:10.1002/1099-0984(200007/08)14:4<291::AID-PER377>3.0.CO;2-6

van der Zee, K. I., & van Oudenhoven, J. P. (2001). The Multicultural Personality Questionnaire: Reliability and validity of self- and other ratings of multicultural effectiveness. *Journal of Research in Personality, 35*, 278-288. doi:10.1006/jrpe.2001.2320

van der Zee, K., & van Oudenhoven, J. P. (2013). Culture shock or challenge? The role of personality as a determinant of intercultural competence. *Journal of Cross-Cultural Psychology, 44*(6), 928-940. doi:10.1177/0022022113493138

van der Zee, K., van Oudenhoven, J. P., Ponterotto, J. G., & Fietzer, A. W. (2013). Multicultural Personality Questionnaire: Development of a short form. *Journal of Personality Assessment, 95*(1), 118-124. doi:10.1080/00223891.2012.718302

Van Dyne, L., Ang, S., Ng, K. Y., Rockstuhl, T., Tan, M. L., & Koh, C. (2012). Sub-dimensions of the four factor model of cultural intelligence: expanding the conceptualization and measurement of cultural intelligence. *Social and Personality Psychology Compass, 6*(4), 295-313. doi:10.1111/j.1751-9004.2012.00429.x

van Niejenhuis, C., Otten, S., & Flache, A. (2018). Sojourners' second language learning and integration: The moderating effect of multicultural personality traits. *International Journal of Intercultural Relations, 63*(1), 68-79. doi:10.1016/j.ijintrel.2018.01.001

van Oudenhoven, J. P., & van der Zee, K. I. (2002). Predicting multicultural effectiveness of international students: The Multicultural Personality Questionnaire. *International Journal of Intercultural Relations, 26*(6), 679-694. doi:10.1016/S0147-1767(02)00041-X

Wang, C., Shakespeare-Finch, J., Dunne, M. P., Hou, X.-Y., & Khawaja, N. G. (2021). How much can our universities do in the development of cultural intelligence? A cross-sectional study among health care students. *Nurse Education Today, 103*, 1-6. doi:10.1016/j.nedt.2021.104956

Wang, K. T., Heppner, P. P., Wang, L., & Zhu, F. (2014). Cultural intelligence trajectories in new international students: Implications for the development of cross-cultural competence. *International Perspectives in Psychology, 4*(1), 1-16. doi:10.1037/ipp0000027

Wang, L., Wang, K. T., Heppner, P. P., & Chuang, C.-C. (2017). Cross-national cultural competency among Taiwanese international students. *Journal of Diversity in Higher Education, 10*(3), 271-287. doi:10.1037/dhe0000020

Yeke, S., & Semerciöz, F. (2016). Relationships between personality traits, cultural intelligence and intercultural communication competence. *Procedia - Social and Behavioral Sciences*(235), 313-319. doi:10.1016/j.sbspro.2016.11.036

Zainab, S. A., & Mohanan, S. A. (2021). The mediation effect of social connectedness between big five personality traits and social interaction anxiety among third culture kids. *Scholar: Human Sciences, 13*(2), 232-251. Retrieved from http://www.assumptionjournal.au.edu/index.php/Scholar/article/view/4747

Zhang, X., Zhang, X., & Yu, X. (2023). Behavioral intention of repeated watching and personality traits: Testing mediation model of nostalgia arousal and social connectedness. *Psychology Research and Behavior Management, 16*, 483-495. doi:10.2147/PRBM.S391130

Zhu, H. (2011). From intercultural awareness to intercultural empathy. *English Language Teaching*, *4*(1), 116-119.

APPENDIX A: QUESTIONNAIRE

Dear Participants,

I am a graduate student at the Graduate Institute of International Human Resource Development at National Taiwan Normal University. I am researching to understand multicultural personality traits, social connectedness, and cultural intelligence among graduate students. I would greatly appreciate your participation in my survey, which will take approximately 15 minutes of your time.

Your participation in this survey is completely voluntary, and all responses will be kept confidential. The data collected will be used only for academic purposes and will not be shared with any third parties. If you have any questions regarding the research, you can email me at sflo96@outlook.com.

Thank you for your time and consideration. I look forward to your participation in this research.

Sincerely,

Sharisha Flores

Graduate Student

Graduate Institute of International Human Resource Development (IHRD)

National Taiwan Normal University

Advisor: Dr. Chih-Chien Steven Lai

Section I **To what extent do the following statements apply to you: (1) Not at all applicable (2) Somewhat not applicable (3) Neutral (4) Somewhat applicable (5) Totally applicable**					
I pay attention to the emotions of others	1	2	3	4	5
I am a good listener	1	2	3	4	5
I can sense when others get irritated	1	2	3	4	5
I prefer getting to know others profoundly	1	2	3	4	5
I enjoy hearing other people's stories	1	2	3	4	5
I notice when someone is in trouble	1	2	3	4	5
I sympathize with others	1	2	3	4	5
I set others at ease	1	2	3	4	5
Section II **To what extent do the following statements apply to you: (1) Not at all applicable (2) Somewhat not applicable (3) Neutral (4) Somewhat applicable (5) Totally applicable**					
I take the lead	1	2	3	4	5
I leave initiative for others to make contacts	1	2	3	4	5
I find it difficult to make contacts	1	2	3	4	5
I take initiatives	1	2	3	4	5
I am inclined to speak out	1	2	3	4	5
I am often the driving force behind things	1	2	3	4	5
I make contacts easily	1	2	3	4	5
I am reserved	1	2	3	4	5
Section III **To what extent do the following statements apply to you: (1) Not at all applicable (2) Somewhat not applicable (3) Neutral (4) Somewhat applicable (5) Totally applicable**					
I try out various approaches	1	2	3	4	5
I am looking for a new way to obtain my goals	1	2	3	4	5
I start a new life easily	1	2	3	4	5
I like to imagine solutions to problems	1	2	3	4	5
I am a trendsetter in societal developments	1	2	3	4	5
I have feelings for what's appropriate in culture	1	2	3	4	5
I seek people from different backgrounds	1	2	3	4	5

I have a broad range of interests	1	2	3	4	5

Section IV **To what extent do the following statements apply to you: (1) Strongly disagree (2) Disagree (3) Somewhat disagree (4) Neither agree nor disagree (5) Somewhat agree (6) Agree (7) Strongly agree**							
I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	1	2	3	4	5	6	7
I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	1	2	3	4	5	6	7
I am conscious of the cultural knowledge I apply to cross-cultural interactions.	1	2	3	4	5	6	7
I check the accuracy of my cultural knowledge as I interact with people from different cultures.	1	2	3	4	5	6	7
I know the legal and economic systems of other cultures.	1	2	3	4	5	6	7
I know the rules (e.g., vocabulary, grammar) of other languages.	1	2	3	4	5	6	7
I know the cultural values and religious beliefs of other cultures.	1	2	3	4	5	6	7
I know the marriage systems of other cultures.	1	2	3	4	5	6	7
I know the arts and crafts of other cultures.	1	2	3	4	5	6	7
I know the rules for expressing nonverbal behaviors in other cultures.	1	2	3	4	5	6	7
I enjoy interacting with people from different cultures.	1	2	3	4	5	6	7
I am confident that I can socialize with locals in a culture that is unfamiliar to me.	1	2	3	4	5	6	7
I am sure I can deal with the stresses of adjusting to a culture that is new to me.	1	2	3	4	5	6	7
I enjoy living in cultures that are unfamiliar to me.	1	2	3	4	5	6	7

I am confident that I can get accustomed to the shopping conditions in a different culture.	1	2	3	4	5	6	7
I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.	1	2	3	4	5	6	7
I use pause and silence differently to suit different cross-cultural situations.	1	2	3	4	5	6	7
I vary the rate of my speaking when a cross-cultural situation requires it.	1	2	3	4	5	6	7
I change my nonverbal behavior when a cross-cultural situation requires it.	1	2	3	4	5	6	7
I alter my facial expressions when a cross-cultural interaction requires it.	1	2	3	4	5	6	7

Section V **To what extent do the following statements apply to you: (1) Strongly disagree (2) Disagree (3) Slightly disagree (4) Slightly agree (5) Agree (6) Strongly agree**						
I feel distant from people.	1	2	3	4	5	6
I don't feel related to most people.	1	2	3	4	5	6
I feel like an outsider.	1	2	3	4	5	6
I see myself as a loner.	1	2	3	4	5	6
I feel disconnected from the world around me.	1	2	3	4	5	6
I don't feel I participate with anyone or any group.	1	2	3	4	5	6
I feel close to people.	1	2	3	4	5	6
Even around people I know, I don't feel that I really belong.	1	2	3	4	5	6
I am able to relate to my peers.	1	2	3	4	5	6
I catch myself losing a sense of connectedness with society.	1	2	3	4	5	6
I am able to connect with other people.	1	2	3	4	5	6
I feel understood by the people I know.	1	2	3	4	5	6
I see people as friendly and approachable.	1	2	3	4	5	6
I fit in well in new situations.	1	2	3	4	5	6

I have little sense of togetherness with my peers.	1	2	3	4	5	6
My friends feel like family.	1	2	3	4	5	6
I find myself actively involved in people's lives.	1	2	3	4	5	6
Even among my friends, there is no sense of brother/ sisterhood.	1	2	3	4	5	6
I am in tune with the world.	1	2	3	4	5	6
I feel comfortable in the presence of strangers.	1	2	3	4	5	6
Demographics Age: ____ Gender: ____ Male ____ Female Which country are you from? _____						

APPENDIX B: PART OF ONLINE QUESTIONNAIRE

Section I

To what extent do the following statements apply to you?

I pay attention to the emotions of others *

Please choose

I am a good listener *

Please choose

I can sense when others get irritated *

Please choose

I prefer getting to know others profoundly *

Please choose

I enjoy hearing other people's stories *

Please choose

I notice when someone is in trouble *

Please choose

I sympathize with others *

Please choose

I set others at ease *

Please choose

Section II

To what extent do the following statements apply to you?

I try out various approaches *

Please choose

Please choose
Not at all applicable
Somewhat not applicable
Neutral
Somewhat applicable
Totally applicable

I am able to start a new life easily *

Please choose

I like to imagine solutions to problems *

Please choose

I am a trendsetter in societal developments *

Please choose

I have a feeling of what's appropriate in another culture. *

Please choose

I seek people from different backgrounds *

Please choose

I have a broad range of interests *

Please choose

Section III

To what extent do the following statements apply to you?

I take the lead *

Please choose

I leave the initiative to others to make contacts *

Please choose

I find it difficult to make contacts *

Please choose

I take initiative *

Please choose

I am inclined to speak out *

Please choose

I am often the driving force behind things *

Please choose

I make contacts easily *

Please choose

I am reserved *

Please choose

Section IV

I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds. *

Please choose

Please choose
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

I am conscious of the cultural knowledge I apply to cross-cultural interactions. *

Please choose

I check the accuracy of my cultural knowledge as I interact with people from different cultures. *

Please choose

I know the legal and economic systems of other cultures. *

Please choose

I know the rules (e.g., vocabulary, grammar) of other languages. *

Please choose

I know the cultural values and religious beliefs of other cultures. *

Please choose

I know the marriage systems of other cultures. *

Please choose

I know the arts and crafts of other cultures. *

Please choose

I know the rules for expressing nonverbal behaviors in other cultures. *

Please choose

I enjoy interacting with people from different cultures. *

Please choose

I am confident that I can socialize with locals in a culture that is unfamiliar to me. *

Please choose

I am sure I can deal with the stresses of adjusting to a culture that is new to me. *

Please choose

I enjoy living in cultures that are unfamiliar to me. *

Please choose

I am confident that I can get accustomed to the shopping conditions in a different culture. *

Please choose

I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it. *

Please choose

I use pause and silence differently to suit different cross-cultural situations. *

Please choose

I vary the rate of my speaking when a cross-cultural situation requires it. *

Please choose

I change my nonverbal behavior when a cross-cultural situation requires it. *

Please choose

Section V

I feel distant from people. *

Please choose

Please choose
Strongly agree
Agree
Slightly agree
Slightly disagree
Disagree
Strongly disagree

I feel like an outsider. *

Please choose

I see myself as a loner. *

Please choose

I feel disconnected from the world around me. *

Please choose

I don't feel I participate with anyone or any group. *

Please choose

I feel close to people. *

Please choose

Even around people I know, I don't feel that I really belong. *

Please choose

I am able to relate to my peers. *

Please choose

I catch myself losing a sense of connectedness with society. *

Please choose

I am able to connect with other people. *

Please choose

I feel understood by the people I know. *

Please choose

I see people as friendly and approachable. *

Please choose

I fit in well in new situations. *

Please choose

I have little sense of togetherness with my peers. *

Please choose

My friends feel like family. *

Please choose

I find myself actively involved in people's lives. *

Please choose

Even among my friends, there is no sense of brother/sisterhood. *

Please choose

I am in tune with the world. *

Please choose

I feel comfortable in the presence of strangers. *

Please choose