

**THE ROLE OF CULTURAL INTELLIGENCE AND COMMUNICATIVE  
ADAPTABILITY IN LOWERING INTERCULTURAL  
COMMUNICATION APPREHENSION OF THE THAI  
INTERNATIONAL COLLEGE STUDENTS**

**Pair Sajampun**

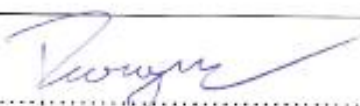
**A Dissertation Submitted in Partial  
Fulfillment of the Requirements for the Degree of  
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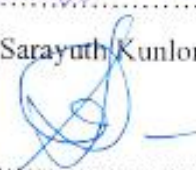
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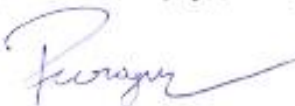
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Assistant Professor..........Major Advisor  
(Peerayuth Charoensukmongkol, Ph.D.)

The Examining Committee Approved This Dissertation Submitted in Partial  
Fulfillment of the Requirements for the Degree of Doctor of Philosophy  
(Communication Arts and Innovation)

Assistant Professor..........Committee Chairperson  
(Sarayuth Kunlong, Ph.D.)

Instructor..........Committee  
(Chairat Suriyapa, Ph.D.)

Assistant Professor..........Committee  
(Peerayuth Charoensukmongkol, Ph.D.)

Professor..........Dean  
(Yubol Benjarongkij, Ph.D.)

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## **ABSTRACT**

<b>Title of Dissertation</b>	The Role of Cultural Intelligence and Communicative Adaptability in Lowering Intercultural Communication Apprehension of the Thai International College Students
<b>Author</b>	Miss Pair Sajampun
<b>Degree</b>	Doctor of Philosophy (Communication Arts and Innovation)
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The purpose of this study was to analyze the role of cultural intelligence (CQ) and communicative adaptability (CA) in lowering intercultural communication apprehension (ICA) among Thai international college students during interacting with a foreign instructor in a classroom. Participants in the study consisted of 333 Thai college students who were studying at Assumption University which is one of the leading private international universities in Thailand where all courses are taught in English. The data were collected in two phases which were at the beginning of the semester and on the day of presentation held at the end of the semester. Partial least squares regression was employed to analyze the relationship between CQ, CA and ICA. In addition, some characteristics of students including age, gender, student classification, grade point average, frequency of English Language used, frequency of enrollment and nationalities of foreign instructors were also included in the analysis.

Overall, the findings of the study indicated that cultural intelligence (CQ) is positively associated with all six aspects of communicative adaptability (social composure, social confirmation, social experience, appropriate disclosure, articulation, and wit). In addition, there were two aspects of CA - social composure and articulation - are found to be significantly associated with lower intercultural communication apprehension (ICA). Hence, this study confirms positive contribution of CQ that would facilitate the students to feel more calm and appropriately express ideas clearly which help lessen anxiety while communicating in English with a foreign instructor in a classroom.

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## **ABBREVIATIONS**

### **Abbreviations**

CQ

CA

ICA

### **Equivalence**

Cultural Intelligence

Communicative Adaptability

Intercultural Communication Apprehension

# **CHAPTER 1**

## **INTRODUCTION**

With the current globalization fostered by the modern world, communicating effectively across cultures is essential. Particularly, among ASEAN countries, as ASEAN Economic Community (AEC) brings together member nations into a single market. In this regard, issues about cultural differences and languages barriers should be greatly concerned. Since English has been chosen as a single language for business and communication across the AEC, intercultural communication and English proficiency has a stronger significance than ever before. These issues will become an integral part of life for most people in general including business and government sectors and of course educational institutions.

In response to the current wave of globalization and high demand of English language, various universities have started to offer international programs in Thailand. The internationalization of education is a growing phenomenon particularly in higher education. According to the International Consultants for Education and Fairs (2013), to date, 1,017 international courses have been opened in universities in Thailand. Out of these courses, 344 are for bachelor's degrees, 394 for master's degrees, 249 for doctoral degrees, and 30 for training programmes. The numbers will probably increase as the regulation regarding with visa issuance is facilitating the travel of foreign teachers and students to Thailand. These could be beneficial for higher education providers to gain more students from both locally and internationally.

Having students from different cultural background is very valuable in higher education. Apart from economic benefit they bring, they are also representing culturally diverse environment within campus. Unfortunately, due to factors such as different cultural background and language barriers, both local and international students might experience an anxiety while interacting in academic environment. Regarding with this, the students may face what is known as intercultural communication apprehension which is "the fear or anxiety associated with either real

or anticipated interaction with people of different groups, especially cultural and ethnic and/or racial groups” (Neuliep & McCroskey, 1997, p. 145). In addition, this phenomenon most likely happens in the situation that is filled with novelty, unfamiliarity, dissimilarity, and uncertainty (Neuliep & McCroskey, 1997). The effect of ICA could be detrimental as it contributes to the negative consequences in student success both socially and academically (McCrosky & Anderson, 1976; McCroskey & Richmond, 1988; McCroskey, Booth-Butterfield, & Payne, 1989; Neuliep & Ryan, 1998). Accordingly, this problem should be addressed. Fluency in English language could also lessen the feeling of anxiety during cross-cultural interaction. As stated in Kaeokallaya (2006), anxiety can be overcome with language competency.

Besides proficiency in second language, an increase in communicative adaptability (CA) could also possibly alleviate the feeling of ICA. Communicative adaptability as stated by Duran (1983, p. 320) was referred to as “the ability to perceive socio-interpersonal relationship and adapt one’s interaction goals and behaviors accordingly”. It was proposed as characteristics of communication competence. In this regard, past study found a negative relationship between communicative adaptability and ICA (Anarbaeva, 2006). Accordingly, an increase in communicative adaptability was related to decrease in intercultural communication apprehension. Therefore, it could mean that as individuals master the ability to communicate with others in social setting, they tend to experience less communication apprehension during interaction with individuals of another culture as well.

Most importantly, understanding about similarities and differences in communication styles of other cultures is very crucial in cross-cultural communication. Regarding this, Cultural Intelligence (CQ) is considered as an important role in facilitating individuals to interact effectively with others from different cultural backgrounds. Earley and Ang (2003) refer CQ as “an individual’s capability to function and manage effectively in culturally diverse setting”. In addition, those capabilities are not only the awareness of similarities and differences of norms, practice and conventions of other cultures, but also the ability to exhibit appropriate repertoire both verbal and nonverbal when interacting with people from different cultural backgrounds. Accordingly, those with high CQ could possibly exhibit appropriate communication repertoire while interacting in novel setting environment.

These nurturing capabilities could subsequently lessen anxiety and tension of individuals during cross-cultural communication.

### **1.1 Statement of the Problem**

Given the benefits of CQ, there still have been limited studies analyzing how cultural intelligence (CQ) could facilitate communicative adaptability (CA) in order to reduce feeling of anxiety during cross-cultural interaction among Thai university students particularly those who are studying international program in Thailand. In addition, the effect of communicative adaptability (CA) toward intercultural communication apprehension (ICA) is also worth exploring since there is evident of experiencing anxiety and apprehension among Thai students when they interact with foreign instructors in class taught in English (Pongthep Bunrueng 2008; Attapol Khamkhien 2010). Therefore, this study aims to investigate the relationships of cultural intelligence (CQ), communicative adaptability (CA) and intercultural communication apprehension (ICA).

### **1.2 Research Questions**

This study addresses the problem of intercultural communication apprehension (ICA) that could occur among Thai students who are studying in culturally diverse environment in international universities in Thailand as well as the significance of the relationship among cultural intelligence (CQ), communicative adaptability (CA) and intercultural communication apprehension (ICA). In particular, this study aims to analyze the role of CQ and CA in lowering ICA among Thai international college students during classroom interaction in English with a foreign instructor.

### **1.3 Significance of the Study**

Intercultural communication apprehension (ICA) is considered as an issue that should be addressed especially among culturally diverse academic institutions. Past studies indicated about its destructive effects which were not only physically and

socially but also academically (McCroskey, Booth-Butterfield, & Payne, 1989; Neuliep & Ryan, 1998; Horowitz, 2002). Accordingly, an effort to overcome ICA should not be neglected.

Language competency might not be enough to ease the tensions among students during cross-cultural communication. Others factors such as knowledge about cultural differences and adaptability might also be needed. Hence, this study is essential to aid this issue for the students. Moreover, further exploration between cultural intelligence (CQ) and communicative adaptability (CA) could contribute to the literature of CQ since the research regarding with the relationship among these variables are still limited.

Ultimately, based on the finding of this study, educators and education institutions may utilize the findings in order to develop strategies and educational program to prevent and lessen intercultural communication apprehension. Accordingly, these could result in a pleasant and desirable outcome in term of social well-being and promoting better intercultural communication performance among the students during their studies in the universities.

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter presents a literature review and hypotheses development. The first part explores the concepts of cultural intelligence (CQ) and communicative adaptability (CA) as well as the relationships of each dimension among CQ and CA. The second part further discusses on the relationship of communicative adaptability (CA) and intercultural communication apprehension (ICA).

#### **2.1 Cultural Intelligence (CQ)**

Cultural Intelligence (CQ) was first introduced by Earley and Ang (2003) as “an individual’s capability to function and manage effectively in culturally diverse setting”. Later on, Earley and Mosakowski (2004) defined CQ as “seemingly natural ability to interpret someone’s unfamiliar and ambiguous gesture in just the way that person’s compatriots and colleagues would, even mirror them”. In the following year, Thomas and Inkson (2005, pp. 5-10) referred to CQ as the following:

Being skilled and flexible about understanding a culture, learning increasingly more about it, and gradually shaping one’s thinking to be more sympathetic to the culture and one’s behavior to be more fine-tuned and appropriate when interacting with others from the culture.

While several researchers referred to CQ as a capability, other scholars placed an emphasis on its outcome (Brislin, Worthley, & MacNab, 2006; Johnson, Lenartowicz, & Apud, 2006). Brislin et al. (2006) referred to CQ as “people’s success when adjusting to another culture”. Furthermore, in the same year, Johnson et al., 2006 also defined CQ as “an individual’s effectiveness in drawing upon a set of knowledge, skills, and personal attributes in order to work successfully with people

from different national backgrounds at home or abroad". In 2007, Ang and Van Dyne (2008) further described CQ as a specific individual difference that targets culturally relevant capabilities.

Though there is no clear consensus about its definition, generally CQ can refer to as a capability to interact effectively with others from different cultural background, or the outcome of these interactions. Unlike any other nonacademic intelligence such as social intelligence and emotional intelligence, CQ focuses on the ability to solve cross-cultural problems. In addition, CQ is culture free and refers to a general set of capabilities with relevance to situations characterized by cultural diversity (Ang & Van Dyne, 2008).

Given the benefits of CQ, recent studies found positive association of CQ relatively with international business performance. According to Peerayuth (2014), there was a positive effect of cultural intelligence on export performance which was mediated through international knowledge acquisition capability. Moreover, the research also found a positive association between the CQ of entrepreneurs and the quality of the relationships that small and medium enterprises (SMEs) had with foreign customers, foreign suppliers and foreign competitors (Peerayuth, 2015).

The concept of CQ drawn from an integrative theoretical framework on multiple loci of intelligence (Sternberg and Detterman's, 1986) in order to propose four different capabilities to relate and work effectively across culture. Those capabilities refer to Metacognitive CQ, Cognitive CQ, Motivational CQ and Behavioral CQ.

### **2.1.1 Cognitive CQ**

Cognitive CQ is a person's knowledge about the similarities and differences of cultures (Earley & Ang, 2003). According to Ang and Van Dyne (2008), cognitive CQ refers to an individual's level of cultural knowledge or knowledge of the cultural environment. Unlike metacognitive CQ which focuses on higher order cognitive processes, CQ reflects knowledge of norms, practices, and conventions in different cultures that has been acquired from educational and personal experiences (Ng, Van Dyne, & Ang, 2012). Regarding with cognitive CQ, Triandis (1994) stated that it includes knowledge of economic, legal, sociolinguistic and interpersonal systems of different cultures and subcultures.

Accordingly, those with high cognitive CQ understand similarities and differences across cultures (Brislin, Worthley, & MacNab, 2006). Given the knowledge about cultural similarities and differences, it's considered as the foundation of decision making and performance in cross-cultural situations (Ang & Van Dyne, 2008). Consequently, better interaction with people from different culture was found in those with high cognitive CQ (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007).

### **2.1.2 Metacognitive CQ**

According to Flavell (1979), Metacognitive CQ reflects mental processes that individual employs to acquire and understand cultural knowledge. Metacognitive CQ also refers to an individual's cultural consciousness and awareness during interactions with those from different cultural backgrounds (Ang & Van Dyne, 2008). In addition, it is also related with the concept of cognitive flexibility as it allows individuals to enhance their cultural knowledge making it flexible to achieve his or her goal in culturally diverse environment (Ang & Van Dyne, 2008). For instance, a cognitively flexible Chinese Americans may choose to display either characteristics of Chinese culture or American culture in response to changing environmental demands.

Relevant capabilities related with metacognitive CQ include planning, monitoring, and revising mental modes of cultural norms for countries or groups of people (Flavell, 1979). As a result of these capabilities, it allows individual to evaluate and revise their mental maps as well as promote active thinking about people and situations when cultural backgrounds differ (Ang & Van Dyne, 2008). Accordingly, research outcomes of metacognitive CQ were required for higher cognitive processing such as task performance and decision making. For instance, Triandis (2006) found that those with high metacognitive CQ question cultural assumptions and adjust their mental models during and after interactions. Additionally, there were positive relationship between metacognitive CQ and predicted managers' perceived cross-border environment uncertainty which could imply in assessing risk internationally (Prado, 2006).



### **2.1.3 Motivational CQ**

Motivational CQ is considered as a critical component of CQ due to its activation in effort and energy directed toward functioning in different cultural setting (Ang & Van Dyne, 2008). According to Ang et al. (2007), motivational CQ refers to a person's interest and confidence in functioning effectively in culturally diverse setting. Motivational CQ includes intrinsic interest-deriving enjoyment from culturally diverse experience, extrinsic interest -- the tangible benefits you gain from culturally diverse experience, and self-efficacy -- having the confidence to be effective in culturally diverse situations (Earley & Ang, 2003).

Regarding to self efficacy and intrinsic interest, both play an important role in CQ since being successful in cross-cultural encounter requires a basic sense of confidence and interest in different settings (Ang & Van Dyne, 2008). Consequently, those with high motivational CQ tend to be confident in their cross-cultural effectiveness (Bandura, 2002). Likewise, Deci and Ryan (1985) claimed that those with high motivational CQ also direct their attention and energy toward cross-cultural situation based on intrinsic interest. Moreover, Ang et al. (2007) pointed out that there are better adjustments in culturally diverse situations among those who feel confident and interested in interacting with people who have different cultural background. Accordingly, a number of studies have found positive relationship of motivational CQ and adjustment. For instance, in a study of global professionals, work and general adjustment over and above realistic job previews and realistic living conditions previews were predicted by motivational CQ (Templer, Tay, & Chandraseker, 2006). Similarly, in a study of American expatriates in China, both sociocultural and psychological adjustments were predicted by motivational CQ (Williams, 2008). Consistent with the finding of Chen, Kirkman, Kim, Farh, and Tangirala (2010), work adjustment of expatriates was also influenced by motivational CQ.

### **2.1.4 Behavioral CQ**

Ang et al. (2007) referred to behavioral CQ as a capability of a person to adapt verbal and nonverbal behavior appropriately for different culture. In 2008, Ang and Van Dyne also stated behavioral CQ as "an individual's capacity to exhibit appropriate verbal and nonverbal actions when interacting with people from different

cultural background”. As stated in Earley and Ang (2003), behavioral CQ dimensions include verbal actions, nonverbal actions and speech act -- the exact word and phrases we use when communicate specific type of messages.

Behavioral component of CQ was considered as the most critical factor to assess other’s CQ since it is easy to get noticed in cross-cultural encounters (Ang & Van Dyne, 2008). Similarly, Hall (1959) also claimed that behavioral CQ is a critical component of CQ due to its salience in social interaction. According to Gudykunst, Ting-Toomey and Chua (1988), display of culturally appropriate words, tone, gesture, and facial expressions were found in those with high behavioral CQ.

Accordingly, those with high behavioral CQ tend to have a flexible repertoire of behavioral responses that enhances their task performance and adjustment. In addition, they tend to use appropriate words and gestures appropriately for specific cultural situation. As stated in Ang et al (2007), supervisors rate those foreign professionals with higher behavioral CQ as more effective in meeting performance expectation at work. Ang further pointed out in several studies that those with high behavioral CQ tend to exhibit better general, work, interactional, and psychological adjustment.

## **2.2 Communicative Adaptability (CA)**

Communicative Adaptability has received much empirical attention and has been in a growing area of concern. Communicative adaptability was introduced by Duran (1983, p. 320) as “the ability to perceive socio-interpersonal relationship and adapt one’s interaction goals and behaviors accordingly”. Duran (1983) further stated that there are four important aspects of communicative adaptability. First, individuals must have the ability to perceive (cognitive) and ability to adapt (behavioral). Second, aside from adaptation but making adjustment in interaction goal is also required. Third, individuals must have the ability to perceive and adapt to requirements posed by different communication context. Fourth, adaptability requires the assumption that perception of communication competence exists in dyad.

Communicative adaptability is proposed as a component or characteristic of communication competence. Relating with the communication competence approach,

Spitzberg and Cupach (1984) stated that there are several broad approaches of competence comprising fundamental competence, social competence, social skills, interpersonal competence, linguistic competence, communicative competence and relational competence. Both fundamental and social competence approaches were incorporated with communicative adaptability.

According to Spitzberg and Cupach (1984), fundamental competence is “an individual’s ability to adapt effectively to the surrounding environment over time” (p.35). Accordingly, adaptability was placed as an emphasis as well as the cognitive and perceptual process which enable one to adapt communicative behavior across contexts. While fundamental competence approaches focus on adaptability and cognitive process, social competence has placed an emphasis on identifying traits and characteristics related to competence that enhanced communicative performance (Spitzberg & Cupac, 1984). Cognitive complexity, empathy, role taking, and interaction involvement are those four characteristics that are consistently identified. Stemming from these two approaches, both approaches acknowledge cognitive components of communication competence. Furthermore, adaptability is also considered as a main feature of communicative adaptability. These findings were in line with the salient aspects of communicative adaptability which required both cognitive (ability to perceive) and behavioral (ability to adapt) skills (Duran, 1983).

Previously, two factors of communicative adaptability were produced which are social experience and social confirmation (Duran & Wheless, 1982). Further, four additional dimensions -- social composure, articulation, wit, and appropriate disclosure -- were included (Duran, 1983).

As noted by Duran (1983), social experience measures an individual’s desire and experience with communication in novel social contexts. Accordingly, it assesses effect for and participation in varied social settings. The behaviors that are associated with this dimension are enjoying meeting people and getting along with other people. Proper social communication repertoires and effective interaction in various social contexts could be the result from these experiences (Duran, 1983).

Another related dimension is social composure. This dimension measures how cool, calm, and collected an individual is in a social situation (Duran, 1983). It measures the degree to which one feels relaxed in a social situation. Being nervous and willing to talk to others could be behavior associated with this dimension.

The third dimension is social confirmation which was developed to measure the acknowledgment of the other's life or projected self-image (Duran, 1983). This dimension taps maintenance of the other's projected social image by virtue of recognizing and confirming the projected social image of one's partner. Behaviors related with this dimension could be caring to other's feeling and making other feel good.

The fourth dimension is appropriate disclosure. It measures one's sensitivity to the cues of the other as an indication of how much to disclose (Duran, 1983). Accordingly, this dimension assesses sensitivity to the intimacy level of social exchange. Adaptability is crucial for appropriate disclosure in order to indicate how intimately one should disclose and adapt to the level of intimacy accordingly.

The fifth dimension is articulation which is the expression of ideas in a manner appropriate to the social context (Duran, 1983). This dimension taps the appropriateness of one's syntax and semantics. In essence, articulation deals with manner in which speech sounds are perceived and produced (Bangs, 1968). It measures the appropriateness of word choice, pronunciation, and grammatical structure. Appropriate word choice, fluent speech, correct pronunciation, clear organization of ideas and proper grammatical construction of sentences are, for example, the dimensions of articulation.

The last dimension is wit. It taps on the use of humor to diffuse social tension (Duran, 1983). Wit is considered as very important to lessen social tension especially in novel social setting. Ullian (1976) found that using humor is a clever and face-saving means to lessen tension.

Regarding to the research utilizing Communicative Adaptability, several studies have been conducted to investigate the relationship of communicative adaptability with other variables. For instance, the relationships between communicative adaptability and communication satisfaction were found (Hecht, 1978; Zakahi & Duran, 1984). Another interesting finding of Duran and Zakahi (1987) found that CA was significantly related to communication satisfaction. Similar result was also found in the relationship between communicative adaptability and communicator style (Norton, 1978). Apart from these, Cegala (1981) found the significant relationship between communicative adaptability and interaction involvement. Later on, Spitzberg

and Cupac (1989) argued that adaptability is also the most frequently cited dimension associated with socially competent person. Interestingly, communicative adaptability was also found to be inversely correlated with shyness, loneliness and communication apprehension (Duran, 1992).

## **2.3 Cultural Intelligence (CQ) and Communicative Adaptability (CA)**

Although the research on the relationship between the two is limited, there are several salient aspects and related research that can speculate their relationship. Accordingly, the correlations between each dimensions of CQ and CA were explored.

### **2.3.1 Cognitive CQ & Social Composure**

Social composure reflects how cool, calm, and collected an individual in a social setting (Duran, 1983). In addition, such composure is essential during social interaction since it provides individuals with the confidence to engage in a conversation. However, in novel social setting, it is unavoidable for some to feel nervous and anxious while interact which others whom not previously known or different background and culture. In addition, the symptoms of this communication anxiety include discomfort feeling, fright, lack of coping, and nervous (Richmond & McCrosky, 1998) Besides unfamiliar and novelty environment, inadequate knowledge of other culture including economic, legal, social systems and pattern of communication could also gradually build up anxiety as well.

According to Spencer-Rodgers and McGovern (2002), insufficient knowledge of language and communication style of other countries could contribute to the development of intercultural communication anxiety. However, in contrast, acquiring adequate knowledge about the norms, practices and convention of other cultures would somehow lessen the feeling of anxiety while interacting in culturally diverse environment. As stated in Wang (2004), when an individual is aware of cultural differences, he or she would feel less embarrassed. Furthermore, an individual tends to experience less anxiety when he or she knows the communication style and values of other culture (Olaniran & Williams, 1995).

Hence, as individual has acquired knowledge structures about other cultures, it would facilitate him or her to better interact with people from a culturally diverse

background which finally could result in feeling under control, calm, relaxed and less nervous in social interaction. Given these supported argument, positive association between cognitive CQ and social composure is therefore postulated.

Hypothesis 1: Cognitive CQ is positively associated with Social composure

### **2.3.2 Metacognitive CQ & Social Composure**

Metacognitive CQ is considered very crucial during cross-cultural interactions. In addition, those with high metacognitive CQ are culturally aware of preference and norms of different societies prior to and during interaction (Ang et al., 2007). Accordingly, it leads individuals to adapt and revise strategies more culturally appropriate.

Given these nurturing capabilities of metacognitive CQ, it is more likely that those with high metacognitive CQ are more sensitive to cultural difference as they are consciously monitoring and revising their strategy during cross-cultural encounters. These could facilitate individuals to modify their understanding of and behavior in cross-cultural interactions which may subsequently lead to a decrease in anxiety. As stated in Chen (2010), an anxiety in communication is less likely to occur in individual with respect to cultural differences. Hence, an individual with high level of cultural sensitivity is more likely to experience less communication anxiety. As a result, being consciously aware of the cultural preferences as well as sensitive to cultural differences could lessen communication anxiety. Thus, individuals with high metacognitive CQ are less likely to experience anxiety but in turn tend to feel relaxed, calm and collected in social situations.

Considering these supportive arguments, positive relationship between metacognitive CQ and social composure is therefore postulated.

Hypothesis 2: Metacognitive CQ is positively associated with Social composure

### **2.3.3 Motivational CQ & Social Composure**

Social composure measures the degree to which one feels relaxed in social situation. In addition, a person who has high social composure tends to be calm and feel under control (Duran, 1983). However, such composure could be the result of

self-efficacy -- “people’s beliefs in their capabilities to produce desired effects by their own actions” (Bandura, 1997). According to Eccles (2005), a feeling of calmness or serenity when engaging in difficult task is a result from self-efficacy whereas low self-efficacy might in turn creates stress and anxiety. Similarly, Matsushima and Shiomi (2003) claimed that there was a strong correlation between social self-efficacy with shyness and social anxiety.

As stated in Earley and Ang (2003), self-efficacy is also included as one facet of motivational CQ. In addition, self-efficacy is considered as an important role in motivational CQ that it provides a sense of confidence in cross-cultural interaction (Ang & Van Dyne, 2008). Accordingly, motivational CQ is related to social composure in term of its causal relationship. As such, individual with high motivational CQ is most likely to be calm, confident and relaxed when interacting with others in different novel settings. Thus, motivational CQ is also expected to be positively related to social composure.

Hypothesis 3: Motivational CQ is positively associated with Social composure.

### **2.3.4 Behavioral CQ & Social Composure**

Social composure can be referred to as a relaxed communicator who is calm, collected and experienced to lessen communication anxiety in social situations (Duran, 1983). Accordingly, individuals who possess behavior associated with social composure would be willing to talk to others, lessen tension and lack nervous mannerisms. In addition, possessing the capability to use a flexible behavioral repertoire in specific cross-cultural situation could possibly decrease tension within a communication encounter (Duran, 1983). As a consequence, it could be speculated that individuals with high behavioral CQ master the capability to enact both appropriate verbal and nonverbal behaviors in specific cross-cultural situation should be more calm and relaxed while engaging in conversation with others. Accordingly, behavioral CQ is also expected to be positively related to social composure.

Hypothesis 4: Behavioral CQ is positively associated with Social composure

### **2.3.5 Cognitive CQ & Social Confirmation**

As stated in Duran (1983), social confirmation is not only recognizing other's projected social image but also confirming the image that one's partner is attempting to assert as well. In addition, Duran further stated that social confirmation facilitates in the adaptation to the relational context. Since cognitive CQ also refers to a person's capability to adapt effectively to new cultural contexts, some dimensions of CQ are expected to associate with social confirmation.

First of all, acknowledgement of other's projected social image is very crucial in social confirmation. This requires cognitive ability to recognize about the projected social image of one's partner. Align with cognitive CQ, it reflects knowledge of sociolinguistic and interpersonal systems of different cultures and subcultures (Triandis, 1994). As such, individual who has high cognitive CQ is most likely to recognize other's projected social image as one is more knowledgeable about norms, practices, and conventions in different cultural setting. Accordingly, positive association between cognitive CQ and social confirmation is postulated.

Hypothesis 5: Cognitive CQ is positively associated with Social confirmation

### **2.3.6 Metacognitive CQ & Social Confirmation**

Metacognitive CQ is also expected to correlate with social confirmation. As social confirmation requires affirmation of the social image that one's partner attempts to assert, the higher order mental capability to think critically and evaluate on people and situation is triggered. As stated in Ang and Van Dyne (2008), metacognitive CQ allows individual to evaluate and revise their mental maps as well as promote active thinking on people and situations when cultural backgrounds differ. Consequently, it may be presumed that individual's high metacognitive CQ is more likely to tap maintenance of the other's projected social image as well. Therefore, metacognitive CQ is also expected to be positively related to social confirmation.



Hypothesis 6: Metacognitive CQ is positively associated with Social confirmation

### **2.3.7 Motivational CQ & Social Confirmation**

Making other people feel good and caring other's feeling are behaviors related with the social confirmation (Duran, 1983). This is a result of not only recognizing but approving the projected social image of one's partner. However, interaction between individuals is needed to acknowledge and affirm the image that one's partner is attempting to assert.

According to Deci and Ryan's (1985), regarding with self-determination theory, the basis for prediction about behavior, experience, and development could be the result from the interaction between individuals and their environments. As such, motivational CQ aids this process as it reflects an individual's intrinsic drive to seek out and enjoy interactions with culturally diverse persons on a consistent basis (Ang et al., 2007). As a consequence, it could be assumed that individual with high motivational CQ tends to better affirm with the other's projected social image as it fosters interaction which facilitates the social confirmation process. Without motivational CQ, he or she may not be willing to enjoy interaction in novel setting which could result in low level of social confirmation of others. Thus, motivational CQ is also expected to be positively related to social confirmation.

Hypothesis 7: Motivational CQ is positively associated with Social confirmation

### **2.3.8 Behavioral CQ & Social Confirmation**

Recognizing and confirming the projected social image of one's partner are required for social confirmation (Duran, 1983). Additionally, making other person feel good and caring for other's feeling are behaviors associated with social confirmation. Accordingly, it requires the capability to conform to the urgent demand of social, physical and relational context. Therefore, a flexible behavioral repertoire is needed in order to exhibit appropriate verbal and nonverbal actions in response to the image that one's partner is attempting to assert. As such, those with high behavioral CQ are more likely to tap maintenance of other's projected social image as they are

more adaptable of using a broad range of behavioral repertoire. Thus, behavioral CQ is also expected to positively related to social confirmation.

Hypothesis 8: Behavioral CQ is positively associated with Social confirmation

### **2.3.9 Cognitive CQ & Social Experience**

Ang and Van Dan (2008) argued that people's thoughts and behaviors could be influenced by knowledge of cultures. In addition, Ang and Van Dan further stated that individuals who know more about components of culture and a society's culture tend to better appreciate the system which brings about specific pattern of social interaction within a culture. Accordingly, those with high cognitive CQ are better able to interact with people from different culture (Ang et al., 2007).

Likewise, those with high degree of social experience tend to get along with other people and enjoying meeting people (Duran, 1983). As such, individuals with high cognitive CQ is more willing to communicate with others in novel social setting as one is more knowledgeable about specific aspects of other cultures. Consequently, positive correlation between cognitive CQ and social experience is therefore proposed.

Hypothesis 9: Cognitive CQ is positively associated with Social experience

### **2.3.10 Metacognitive CQ & Social Experience**

Metacognitive is not only reflecting about knowledge of culture but also referring to capability to make sense of culturally diverse experiences (Ang & Van Dyne, 2008). Accordingly, higher cognitive process regarding with planning, monitoring, and revising mental map were activated in order to increase the accuracy of their understanding before and during interaction with people from different cultures (Flavell, 1979). Consequently, those with high metacognitive CQ can ensure about their strategy before a culturally diverse encounter. In contrast, without sufficient level of metacognitive CQ, one might hesitate to participate in culturally diverse setting since it requires proper repertoire to interact in some specific cultures. As such, individuals with high metacognitive CQ is more willing to participate with people from different background as they perpetually strategize for a proper way to communicate and relate across culture. Therefore, positive association between cognitive CQ and social experience is presented.

Hypothesis 10: Metacognitive CQ is positively associated with Social experience

### **2.3.11 Motivational CQ & Social Experience**

First of all, social experience as noted by Duran (1983) shared common characteristics with motivational CQ. As stated in Ang and Van Dyne (2008), motivational CQ reflects an individual's intrinsic drive to seek out and enjoy interaction with culturally diverse person. In addition, it is a source of drive that sparks energy and effort toward participating in different cultural setting (Ang et al., 2007). Consequently, those with high motivational CQ show an interest in experiencing other cultures and interacting with people from different cultures.

Ang and Van Dyne (2008) exemplified these behaviors that when Chinese executives who like to collaborate with those from different culture would not ponder to take up a conversation with Japanese colleague (p.6). Similar behavior was also found in socially experienced individuals are enjoying meeting people and getting along with other people (Duran, 1983). In fact, social experience mirrors individual's desire to interact with others in different social setting. Since these two concepts shared individual's intrinsic drive, positive correlation between motivational CQ and social experience is therefore speculated.

Hypothesis 11: Motivational CQ is positively associated with Social experience.

### **2.3.12 Behavioral CQ & Social Experience**

As stated in Ang and Van Dyne (2008), those with high behavioral CQ tend to exhibit appropriate verbal and nonverbal action while interacting with people of different cultural background. In fact, it involves having flexible repertoire that would suit a variety of situations. Without such proper repertoire, it would somehow lead to communication anxiety that eventually discourages individuals to participate in social setting.

According to Anarbaeva (2006), poor language could result in misunderstanding in dialogue and eventually lead to intercultural communication apprehension. Furthermore, such communication anxiety could cause individuals to avoid

communication and are less likely to approach others (Neuliep & Ryan, 1998). McCrosky and Richmond (1990) held similar view that communication avoidance and withdrawal may result from communication anxiety.

Therefore, in an opposite case, as individuals with high behavioral CQ master the ability to exhibit proper repertoire to fit specific cultural setting, they are prone to experience less communication anxiety. As a result, they are more likely to enjoy meeting new people and willing to participate in varied social settings. Accordingly, positive correlation between behavioral CQ and social experience is therefore proposed.

Hypothesis 12: Behavioral CQ is positively associated with Social experience

### **2.3.13 Cognitive CQ & Appropriate Disclosure**

According to Duran (1983), appropriate disclosure assesses sensitivity to the intimacy level of social situation. Accordingly, recognition of the appropriate disclosure is required in order to indicate how intimately one should disclose. This requires individual's level of cultural knowledge including norms and practices among people in order to appropriately measure one's sensitivity to disclosure. Parallel with cognitive CQ as it represents cultural knowledge not only including economic, legal but also sociolinguistic and interpersonal system as well (Triandis, 1994). Hence, individual with high cognitive CQ is expected to assess the proper level of intimacy accordingly as one is more knowledgeable about interpersonal systems of different cultures and subcultures. Therefore, positive association between cognitive CQ and appropriate disclosure is presented.

Hypothesis 13: Cognitive CQ is positively associated with Appropriate disclosure

### **2.3.14 Metacognitive CQ & Appropriate Disclosure**

Appropriate disclosure requires an assessment of how intimacy one should disclose and adapt the level of intimacy accordingly (Duran, 1983). However, it is not predictable since levels of self-disclosure also differ among cultures (Chen, 1991). For instance, Lewin (1948) found that Germans disclose themselves less than Americans. Furthermore, Chen (1991) also reported differences in self-disclosure

between Asians and Americans. Additionally, Barnlund's (1975) stated that Americans substantially reveal more information than Japanese on different topics such as financial affairs and physical appearance. Accordingly, higher level of cognitive capabilities is needed to properly strategize the level of intimacy one should disclose in different cultures.

In contrast, lack of metacognitive CQ might result in failure to assert proper level of intimacy in some specific cultures due to lacking of planning, monitoring and revising their mental modes. As such, we can assume that individual with high metacognitive CQ tends to properly display appropriate disclosure more specifically in diverse cultural setting. Accordingly, metacognitive CQ is also expected to be positively related to appropriate disclosure.

Hypothesis 14: Metacognitive CQ is positively associated with Appropriate disclosure

### **2.3.15 Motivational CQ & Appropriate Disclosure**

According to Ang and Van Dyne (2008), those with high motivational CQ tend to have confidence in functioning effectively in culturally diverse setting. In addition, they tend to direct attention and energy towards cross-cultural situation. Accordingly, they are equipped with “agentic control of effect, cognition and behavior that facilitate goal accomplishment” (Kanfer & Heggestad, 1997, p.39). Therefore, in particular, this could be manifested in terms of its outcome which is related to coping behaviors such as cultural adaptation and adjustment.

According to Templer, Tay and Chandrasekar (2006), motivational CQ predicted three facets of adjustment--general, work and interaction. Furthermore, motivational CQ is found to be positively related with cultural adaptation (Ang et al., 2007). These are also consistent with William's (2008) findings that motivational CQ predicted both sociocultural and psychological adjustment.

Given these findings of motivational CQ, it mostly predicted adaptation and adjustment in culturally diverse environment. This could also possibly be related to social disclosure since assessing sensitivity to the appropriate intimacy level of social exchange may assume adaptability (Duran, 1992). In addition, adaptability is critical for appropriate disclosure since the level of self-disclosure tends to vary across the

cultures. As stated in Lewin (1948), Germans disclose themselves less than Americans. Moreover, Americans are found to substantially disclose themselves more than Japanese on different topics such as physical appearance and financial affairs (Barnlund, 1975).

Consequently, adaptability is crucial for appropriate disclosure in order to indicate how intimately one should disclose and adapt the level of intimacy accordingly to suit with different cultures. As such, it can be speculated that an individual with high motivational CQ has direct control of the behavior that could facilitate appropriate intimacy level during social interaction. Hence, positive relationship between motivational CQ and appropriate disclosure is proposed.

Hypothesis 15: Motivational CQ is positively associated with Appropriate disclosure

### **2.3.16 Behavioral CQ & Appropriate Disclosure**

Behavioral CQ is also expected to correlate with appropriate disclosure. As stated in Duran (1983), appropriate disclosure assesses sensitivity to the intimacy level of social exchange. Accordingly, adaptability is required in order to adjust the intimacy level within the constraints of the social context as indicated by others. As such, behavioral CQ is essential as it represents a capability of a person to adapt verbal and nonverbal behavior when interacting with people from different cultural background (Ang et al., 2007). Moreover, nonverbal behavior functions as a “silent language” that conveys meaning in covert and subtle ways (Hall, 1959).

Hence, those with high behavioral CQ are supposed to exhibit appropriate verbal and nonverbal actions in response to the cues of others as an indication of how much to disclose. Consequently, positive relationship between behavioral CQ and appropriate disclosure is postulated.

Hypothesis 16: Behavioral CQ is positively associated with Appropriate disclosure

### **2.3.17 Cognitive CQ & Articulation**

Articulation measure an individual’s ability to clearly express his or her ideas (Duran, 1983). In addition, it deals with appropriateness of one’s syntax and

semantics. Correct pronunciation, appropriate word choice and proper grammatical construction are expected manner. Moreover, expression of ideas in an appropriate manner to the social context is also concerned. Accordingly, not only knowledge about word choice, pronunciation and grammatical structure but also language variation in various social contexts is also required.

Aligned with cognitive CQ, articulation also includes knowledge of interpersonal system and sociolinguistic of different cultures and subcultures. As such, individuals with high cognitive CQ is more capable of expressing one's idea clearly as they understand about the usage of a language and how it differs between social groups and cultures. Without adequate cognitive CQ, he or she might not be well equipped with knowledge about language variation used in different culture. As a result, wrong pronunciation and incorrect word choice might be used which possibly result in misunderstanding and misleading of the conveyed message. For this reason, positive association between cognitive CQ and social articulation is therefore postulated.

Hypothesis 17: Cognitive CQ is positively associated with Articulation

### **2.3.18 Metacognitive CQ & Articulation**

As stated in Duran (1983), articulation is necessary in effective communication as it represents the expression of ideas in a manner appropriate to the social context. Correct pronunciation, appropriate word choice, fluent speech, proper grammatical construction of sentences and clear organization of ideas are required in order to express an idea clearly. In contrary, unorganized or using inappropriate words would result in misleading of the message that one intends to communicate. Moreover, the situation would get more unfavorable especially in cross- cultural communication context due to the language variation. For instance, not using the word "please" might be interpreted as rude in some culture. Also, raising one's voice would likely be interpreted as rude or even aggressive. Further, as noted by Wierzbicka (2003), Japanese culture discourages from using the words or sentences that expressing their wishes, their desires and their preference. Hence, saying "I want this" or "I don't want this" is not preferable. In contrast, in English, saying something clearly about what one wants or what one thinks is expected.

Accordingly, adaptability and flexibility are presumed to properly express ideas (Duran, 1983). Abilities to actively think, adapt and revise the strategies would be necessary to facilitate the expression of ideas in a manner appropriate to different cultures. Thus, it could be speculated that an individual with high metacognitive CQ is more likely to appropriately express his or her idea particularly in cross-cultural encounters. Therefore, metacognitive CQ is also expected to be positively related to articulation.

Hypothesis 18: Metacognitive CQ is positively associated with Articulation

### **2.3.19 Motivational CQ & Articulation**

According to Duran (1983), articulation measures an individual's ability to clearly express his or her ideas. It also means an appropriate use of syntax and semantics. However, in cross-cultural context, recognizing language variation may not be enough. Correct pronunciation, appropriate word choice and proper grammatical construction are necessary to successfully express one's idea. As such, an interest in learning about language variation is required in order to motivate an individual to improve his or her communication skills in cross-cultural interactions. Accordingly, motivational CQ is needed as it reflects an individual's capability to direct attention and energy toward learning about and functioning in situations characterized by cultural differences (Ng, Van Dyne, & Ang, 2012). Additionally, as noted by Kanfer and Heggstad (1997), such motivational capacities "provide agentic control of affect, cognition and behavior that facilitate goal accomplishment" (p.39).

Thus, it could be speculated that an individual with high motivational CQ is more likely to appropriately express his or her idea clearly particularly in culturally diverse setting since one tends to assert more effort in cross-cultural communication. Consequently, motivational CQ is also expected to be positively related to articulation.

Hypothesis 19: Motivational CQ is positively associated with Articulation

### **2.3.20 Behavioral CQ & Articulation**

The association between articulation and behavioral CQ is also speculated. According to Ang and Van Dyne (2008), individuals with high behavioral CQ tend to



have a flexible repertoire of behaviors to make them act appropriately to different cultures. It involves with the capability to modify both verbal behaviors (e.g., tone, accent) and nonverbal behaviors (e.g., facial expression, gesture) that suit a variety of situations (Earley & Ang, 2003). Similarly, articulation also means expressing his or her own idea clearly with appropriate syntax and semantics suitable to social context (Duran, 1983). In addition, articulation enables others to perceive the content of message correctly due to the appropriate word choice, correct pronunciation and proper grammatical construction.

Accordingly, as individuals with high behavioral CQ master the ability to adapt their verbal and nonverbal behaviors suitably in culturally diverse culture, they should be able to express their ideas clearly in novel setting as well. Hence, behavioral CQ should be positively related to articulation.

Hypothesis 20: Behavioral CQ is positively associated with Articulation

### **2.3.21 Cognitive CQ & Wit**

Wit is considered as very crucial in social interaction. In addition, its primary function is to diffuse anxiety and tension within the communicative adaptability construct (Duran, 1983). Accordingly, those who have high level of wit are not only being humorous but also is able to use variety of words in a clever and amusing way that could lessen social tension. However, using humor appropriately across cultures could be complicated. As stated in Axtell (1998), “Every culture enjoys some form of humor. But, humor has difficulty crossing cultural boundaries because what is humorous in one country is often not humorous in another.”

Axtell (1998) further stated that using humor appropriately often involves wordplay, particular expression and exceptional knowledge of language. As such, cognitive CQ is essential since it enables an individual to recognize the knowledge based structure across cultures including norms, practices and conventions (Ang & Van Dyne, 2008). Therefore, it could be speculated that as individual is well equipped with cultural knowledge, he or she tends to use appropriate style of humor to dilute anxiety and tension during interaction. Considering these arguments, positive relationship between cognitive CQ and wit is therefore posited.

Hypothesis 21: Cognitive CQ is positively associated with Wit

### **2.3.22 Metacognitive CQ & Wit**

Humor can be an effective communication device as it diffuses social tension. However, it is not an easy task to exhibit appropriate style of humor particularly in cross-cultural interaction since each culture has its own style of humor. Accordingly, monitoring on cultural cues that define circumstances when humor is acceptable and when it is not is necessary. As stated in Norrick (1993), humor can be identified by overt cues such as smile and laughter. However, in contrast, Axtell (1998) argued that a smile can mean that a person is uncomfortable or sad particularly in some Asian cultures. Furthermore, some style of humor might not be applicable to other cultures. It is quite acceptable for Americans to begin speeches with a joke while it could be perceived as inappropriate in other cultures (Axtell, 1998).

Regarding with this, metacognitive CQ is required for an individual to evaluate and revise his mental map of what constitutes as acceptable humor. Without metacognitive CQ, he or she could unintentionally offend others. This could be detrimental. Accordingly, those with high metacognitive CQ tend to effectively use proper humor to lessen social tension since they make sense of appropriate style of humor across cultures. Consequently, positive relationship between metacognitive CQ and wit is postulated.

Hypothesis 22: Metacognitive CQ is positively associated with Wit

### **2.3.23 Motivational CQ & Wit**

Appropriate use of humor to diffuse social tension requires abilities not only to use proper words but also to use them in a clever and amusing way. This task could be doubled especially during cross-cultural interaction. As stated by Axtell (1998), humor is very difficult to export. Hence, in-depth understanding of culture and style of humors are crucial in order to use it appropriately.

Regarding with this, individuals need to have an interest in order to motivate them to learn more about using proper style of humor. As such, motivational CQ provides a source of drive for an individual to make an initiative to acquire more knowledge about using it appropriately. As a result, those with high motivational CQ

could effectively exhibit appropriate words and gesture to decrease tension in novel setting environment.

Given these supportive arguments, positive relationship between motivational CQ and wit is therefore presented.

Hypothesis 23: Motivational CQ is positively associated with Wit

### **2.3.24 Behavioral CQ and Wit**

According to Duran (1992), wit is an adaptive response to tense social interactions. In fact, it functions to aid an individual in handling anxiety that can be generated during social interaction. Accordingly, appropriate verbal and nonverbal actions should be carefully exhibited since humor often involves wordplay and very informal expression which sometimes causes confusion for others with different cultural background (Axtell, 1998). For instance, Axtell exemplified this that in Dutch, when saying that something tastes good, the literal translation would be: “It’s like an angel peeing on my tongue.” Also, in a number of Latin American countries, the word “chill” is used to refer to a certain part of a man’s anatomy whereas it simply means “a little bit cold” in English.

Therefore, behavioral CQ is critical since it enables an individual to act appropriately both verbally and nonverbally (Ang & Van Dyne, 2008). As a consequence, he or she could exhibit proper behavioral repertoires that could lessen anxiety and tension during social interaction in novel setting. Regarding with these supportive arguments, positive relationship between behavioral CQ and wit is therefore posited.

Hypothesis 24: Behavioral CQ is positively associated with Wit

## **2.4 Communication Apprehension**

It is necessary to discuss on communication apprehension before proceeding to intercultural communication apprehension (ICA) since ICA is a subfield. The following paragraphs feature introduction of both communication apprehension and intercultural communication apprehension (ICA) including the types and effects.

Communication Apprehension was originally defined by McCroskey (1977) as the fear or anxiety associated with either real or anticipated interaction with others.

In addition, communication apprehension is distinguished from other related constructs such as talkativeness and willingness in terms of its causal element which is fear and/or anxiety (McCroskey, 1977). Particularly, individuals tend to worry about interacting with others. Inhibited, hesitant and sometimes disrupted manners are associated behaviors with anxious individuals (Leary, 1982; 1990).

Accordingly, those with high communication apprehension are less likely to approach others and assert themselves (Neuliep & Ryan, 1998). More symptoms of communication apprehension were identified as being less competent and productive (McCroskey & Richmond, 1988). McCroskey and Richmond further stated that “high communication apprehension is seen as a potential inhibitor of the development of both communication competence and communication skill and as a direct sign of negative communication affect” (p. 411).

According to McCroskey and Beatty (1986, pp. 281-283), there are four ways to conceptualize communication apprehension -- trait-like, generalized context, person-group, and situational. Trait-like is “a relatively enduring, personality-type orientation toward oral communication across a wide variety of contexts”. This can refer to a relatively stable and long-term tendency of an individual toward experiencing fear and/or anxiety across a wide range of communication contexts. In contrast, generalized context features “a relatively enduring, personality-type orientation toward communication in a given type of communication context”. Therefore, the apprehension development depends on the type of communication such as small group or intercultural.

The third one is person-group which incorporates “a relatively enduring orientation toward communication with a given person or group of people”. Thus, this type of apprehension depends on types of person or group involved in the communication whether it could be public, interpersonal, or small group. Lastly, situational is “a transitory orientation toward communication with a given person or group of people”. Accordingly, this communication apprehension depends on the changes in the environment in which communication occurs. For instance, subordinates might feel anxiety to interact with superior due to the expected acceptable behavior.

## **2.5 Intercultural Communication Apprehension (ICA)**

According to Neuliep and McCroskey (1997), Intercultural Communication Apprehension (ICA) is “the fear or anxiety associated with either real or anticipated interaction with people of different groups, especially cultural and ethnic and/or racial groups”. In addition, this apprehension most likely happens in the situations that are filled with novelty, unfamiliarity, dissimilarity, and uncertainty (Neuliep & McCroskey, 1997). Accordingly, in such circumstance, it might lead to increase one’s sense of anxiety (Buss, 1980). For instance, as stated in Gudykunst and Kim (1997), interacting with people from other cultures so called “stranger” tends to involve the highest degree of strangeness and the lowest degree of familiarity which eventually leads to high anxiety. Accordingly, Gudykunst and Kim further argued that this type of communication anxiety can be labeled intercultural communication apprehension. In addition, this type of communication apprehension has been found to be the highest among others (Anarbaeva, 2006).

Regarding to international students, it is unavoidable for them to experience intercultural communication apprehension due to the different cultural environment of novelty, unfamiliarity, conspicuousness and degree of attention from others (McCroskey & Beatty, 1998). As stated in Anarbaeva (2006), discussion of controversial topics such as politics, religion, and history among students from different backgrounds could cause intercultural communication apprehension. Similar to Wang (2004), being uncomfortable arises among international students while they are participating in small group discussion as well as public speaking in American classroom. Wang further stated that discussing about some subjects such as history and politics could impede the international students to share their opinion and could cause anxiety due to the limited knowledge about the United States political system.

Additionally, functioning in a second language can sometimes cause international communication apprehension among international students. Anarbaeva (2006) argued that poor language skills in a second language result in misleading in dialogue which subsequently causes intercultural communication apprehension. Also, second language task tends to provoke anxiety and could lead to high cultural apprehension (Lu & Hsu, 2008). Moreover, Jung and McCroskey (2004) pointed out

that the apprehension when speaking a second language was even higher if an international student was already apprehensive in native language. Accordingly, the more apprehensive one is in his or her native language the more apprehensive in a second language he or she will be.

## **2.6 Communicative Adaptability (CA) and Intercultural Communication Apprehension (ICA)**

According to Duran (1992), communicative adaptability has been found to be related to interaction management, psychological gender orientation, cognitive complexity and communication apprehension. Regarding to communication apprehension, all six dimensions of communicative adaptability were found to correlate with communication apprehension. However, specifically, social composure and social experience were found significantly to correlate with communication apprehension (Duran, 1983).

Social composure measures the degree to which one feels relaxed in social situation (Duran, 1983). Initially, social relaxation is originally included as one dimension of communicative competence (Wiemann, 1977). According to Kelly, Chase and Wiemann (1979), communication apprehension may be the reverse of communicative competence. Wieman (1977, p. 197) also discussed that “the competent communicator does not provoke anxiety in others by exhibiting anxiety in him/herself”. As a result, individual with high socially composed manner is less likely to experience apprehension during social interaction.

Besides social composure, social experience was also found significantly to correlate with communication apprehension (Duran, 1983). Social experience as stated by Duran (1983) measures an individual’s desire and experience with communication in novel setting contexts. Accordingly, these experiences could result in development and refinement of social communication repertoire which allow an individual to interact in various social contexts. Without such social repertoire, individual might subsequently feel anxious when confronting a social situation. Consistent with Duran (1983), social experience and anxieties are related and afterward lead to communication anxiety. Thus, as an individual has participated in

varied social settings, he or she might gradually be equipped with social communication repertoire which could decrease communication apprehension.

Besides aforementioned correlations, the relationship between communication apprehension and intercultural communication apprehension (ICA) was also investigated. According to Jung and McCroskey (2004), there is a direct relationship between communication apprehension and intercultural communication apprehension. In addition, the research found that the apprehension when speaking a second language was even higher among international students when they were already apprehensive in native language.

All in all, it seems likely that there will also be a relationship between communicative adaptability and intercultural communication apprehension. As previously mentioned, communicative adaptability has been linked to communication apprehension (Duran, 1983; 1992). Moreover, a direct relationship between communication apprehension and intercultural communication apprehension was also found (Jung & McCroskey, 2004). Therefore, as individuals with high communicative adaptability master the ability to communicate with others in social setting, they should also appropriately exhibit repertoire which enable them to communicate with intercultural individuals as well. As a result, they tend to experience less communication apprehension during interaction with individuals of another culture. Consistent with the finding found by Anarbaeva (2006), it was stated that as communicative adaptability increased, intercultural communication apprehension decreased.

Considering all the supported arguments, inverse relationships of communicative adaptability and intercultural communication apprehension are therefore postulated:

Hypothesis 25 : Social composure is negatively associated with ICA

Hypothesis 26 : Social confirmation is negatively associated with ICA

Hypothesis 27 : Social experience is negatively associated with ICA

Hypothesis 28 : Appropriate disclosure is negatively associated with ICA

Hypothesis 29 : Articulation is negatively associated with ICA

Hypothesis 30 : Wit is negatively associated with ICA

## 2.7 Conclusion

In summary, this chapter provides theoretical background and concepts as well as previous related studies of Cultural Intelligence (CQ), Communicative Adaptability (CA) and Intercultural Communication Apprehension (ICA). Based on the theoretical supports drawn from related studies, each dimension of CQ and CA are hypothesized to be positively associated. Conversely, each dimension of CA is postulated to be negatively associated with ICA. The conceptual framework is presented in Figure 2.1 which shows the relationships among the variables in this study.

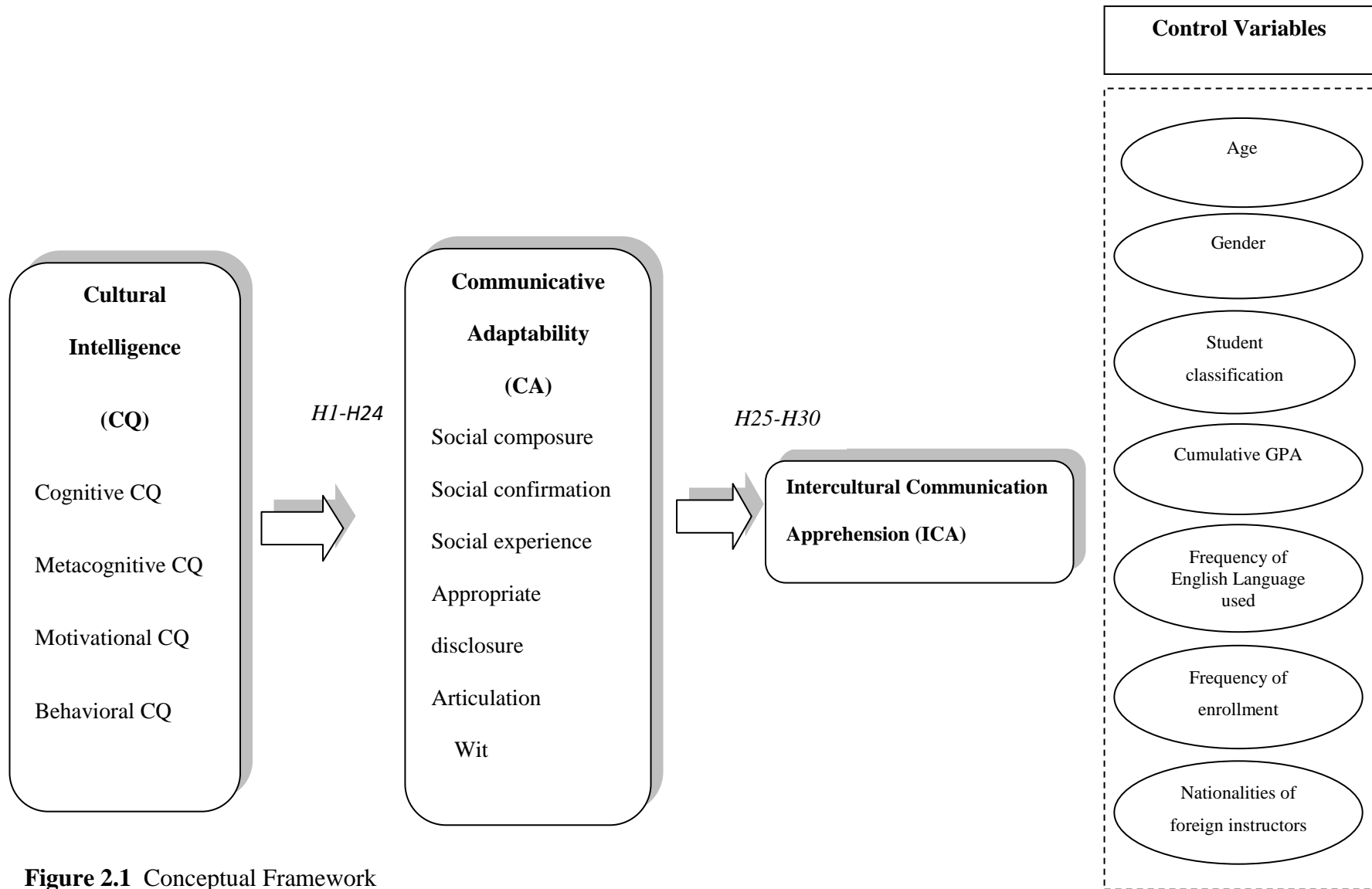
## 2.8 Hypotheses

Considering all the previous theoretical support and previous findings, the following thirty hypotheses have been proposed:

- H1: Cognitive CQ is positively associated with Social composure
- H2: Metacognitive CQ is positively associated with Social composure
- H3: Motivational CQ is positively associated with Social composure
- H4: Behavioral CQ is positively associated with Social composure
- H5: Cognitive CQ is positively associated with Social confirmation
- H6: Metacognitive CQ is positively associated with Social confirmation
- H7: Motivational CQ is positively associated with Social confirmation
- H8: Behavioral CQ is positively associated with Social confirmation
- H9: Cognitive CQ is positively associated with Social experience
- H10: Metacognitive CQ is positively associated with Social experience
- H11: Motivational CQ is positively associated with Social experience
- H12: Behavioral CQ is positively associated with Social experience
- H13: Cognitive CQ is positively associated with Appropriate disclosure
- H14: Metacognitive CQ is positively associated with Appropriate disclosure
- H15: Motivational CQ is positively associated with Appropriate disclosure
- H16: Behavioral CQ is positively associated with Appropriate disclosure
- H17: Cognitive CQ is positively associated with Articulation
- H18: Metacognitive CQ is positively associated with Articulation



- H19: Motivational CQ is positively associated with Articulation
- H20: Behavioral CQ is positively associated with Articulation
- H21: Cognitive CQ is positively associated with Wit
- H22: Metacognitive CQ is positively associated with Wit
- H23: Motivational CQ is positively associated with Wit
- H24: Behavioral CQ is positively associated with Wit
- H25: Social composure is negatively associated with ICA
- H26: Social confirmation is negatively associated with ICA
- H27: Social experience is negatively associated with ICA
- H28: Appropriate disclosure is negatively associated with ICA
- H29: Articulation is negatively associated with ICA
- H30: Wit is negatively associated with ICA



**Figure 2.1** Conceptual Framework



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

The purpose of this chapter is to describe the method used to analyze the contribution of cultural intelligence (CQ) and communicative adaptability (CA) on intercultural communication apprehension (ICA). Accordingly, research context, unit of analysis, sample selection, data collection, questionnaire development and estimation method will be discussed.

#### **3.1 Research Context**

Thai students who are currently studying at Assumption University were selected for this study due to its cultural diversity and classroom environment appropriate to serve the purpose of this research. Assumption University is one of the leading international universities in Thailand which English is employed as the official medium of instruction in all degree programs. In addition, the university is an international community representing faculty members and international students from diverse cultural background and nationalities. The university currently has 303 foreign faculty members comprising 30.67 % of total faculty members and 2,904 international students from 90 nationalities representing 16.31% of total current students (Facts and Figures- Assumption University, 2015). For Thai students, there are 14,897 students which currently enroll in different academic programs across many disciplines.

Regarding classroom environment, participation in class activities and presentation are required throughout the semester especially in third and fourth year subjects. Hence, it is unavoidable for the students to experience anxiety while interacting with foreign instructor particularly among Thai students. In addition, some of them still hesitate to interact with their foreign instructors in English due to perceived cultural differences and inadequate English proficiency.

### **3.2 Sample Selection**

The sampling frame consisted of Thai students who are currently studying at Assumption University. In addition, the data were collected mostly from third and fourth year students who enrolled in four marketing-major courses which are introduction to creative communication, global marketing, competitive analysis and consumer behavior. In particular, the selected subjects required the students to participate in a variety of activities such as role play, case analysis, individual presentation and group presentation. All of the selected classes were taught by foreign instructors from different countries including Australia, Ireland, U.S, China, Bangladesh, India and the Philippines. First year students were not included in this study due to the nature of subjects enrolled for freshmen were still not much required individual presentation.

### **3.3 Data Collection Procedure**

The data were collected from the students using self-administered questionnaire. This method of data collection allows respondents to reveal their own behavior and feelings from experience in real situations rather than inferring from observing participants (Robin, Norem, & Cheek, 1999). In addition, self report survey allows the researcher to obtain the richness of information as the respondents have self access to their intrapsychic information in term of thoughts, feelings and sensations that are unavailable to others (Robin, Norem, & Cheek, 1999).

The data were collected in two different time periods in order to avoid common method bias which could occur due to different constructs measured at the same point in time (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In addition, Podsakoff suggested that time lag between the measurement of the predictor and criterion variables were suggested in order to employ the procedure that could control the effect of common method variance.

Data collection procedure for this study consisted of two phases. For the first phase, CQ and other characteristics of the respondents were collected at the beginning of the semester while classes were being held. The students were given approximately

15 minutes to complete the survey and return back to the researcher. In addition, the students were required to provide their names and student ID for matching purpose in phase 2. For phase two, the questionnaires were return to the students in order to complete on the sections of CA and ICA. The data were collected right after the students presented their oral presentation at the end of the semester.

Regarding the final presentation, each student was required to present their final term project individually on the final week of the semester. During or after the presentation, the students were asked by foreign instructors to clarify some points relating with the topics of their presentation. In addition, the students were expected to present professionally by not looking at a note and maintain eye contact with the instructor. Right after the presentation, the students were given approximately 15 minutes to complete the survey and return them back to the researcher.

### **3.4 Measurement**

The standardized scales were employed as the questionnaire in this study due to its reliability and validity that have been tested. In addition, backward translation was conducted in which the original questionnaire developed in English will be translated into Thai, and then will be translated back to English by at least two professional translators (Brislin, 1970). In this regard, the complete questionnaire is shown in the APPENDIX section. The following are the scales of each construct.

#### **3.4.1 Cultural Intelligence (CQ)**

CQ was measured by Ang et al. (2007). The scale consists of twenty-item self-reported questions rated on a 5-point Likert-type scale with values ranging from one; strongly disagree, to five; strongly agree. CQ comprises four dimensions which are cognitive CQ, metacognitive CQ, motivational CQ and behavioral CQ. In addition, cognitive CQ comprises six items; metacognitive CQ comprises of four items; motivational CQ comprises five items; and behavioral CQ comprises five items.

### **3.4.2 Communicative Adaptability (CA)**

The Communicative Adaptability Scale developed by Duran (1992) was used to measure communicative adaptability. The questions were modified to suit with the situation for the purpose of this study. A series of 30 scale items measure social composure, social confirmation, social experience, appropriate disclosure, articulation, and wit. Self-report measures using a Likert-type scale ranging from 1 (never true to me) to 5 (always true to me). This measurement of CA has been employed in past studies to measure the ability to communicate in social setting. (Hecht, 1978; Zakahi & Duran, 1984).

### **3.4.3 Intercultural Communication Apprehension (ICA)**

The measurement of intercultural communication apprehension (ICA) is modified from the scale developed by Neulip and McCroskey (1997). The Personal Report of Intercultural Communication Apprehension (PRICA) consists of 14 statements measuring communication apprehension in intercultural contexts. The PRICA, adapted from a five-step Likert-type scale, asks respondents to answer 14 statements to indicate their agreement from strongly disagree (1) to strongly agree (5). This measurement has been used in previous studies to measure the anxiety of an individual while interacting in culturally diverse environment (Jung & McCrosky, 2004; Anarbaeva, 2006).

## **3.5 Control Variables**

The following presents the set of control variables including some characteristics of the students that could affect CA and ICA.

### **3.5.1 Age**

Age could possibly influence dependent variables regarding CA and ICA. As the older age, the respondents may have accumulated communication skills in life. Hence, it might be speculated that older respondents may be well equipped more with skills in communication necessary to cope in given situation. Age was measured in years

### **3.5.2 Gender**

Gender difference is also considered as an importance factor that could affect dependent variables. Given the difference in nature of male and female in communicating, they might differ in some aspects of CA. Accordingly, it could be intriguing to examine the effect of gender on CA and ICA in this study. Gender was measured as dummy variable (male was coded 1; female was coded 0).

### **3.5.3 Student Classification**

In regard to student classification, senior or final year students were assumed to show higher scores regarding communicative adaptability. Given breadth of experiences in classroom activities, the senior suppose to possess adequate communication skills more than the sophomore or junior ones. Student classification was measured on an ordinal scale ranging from 1 (freshman) to 4 (senior).

### **3.5.4 Cumulative GPA**

Cumulative grade point average of the students could also be speculated to have an effect on dependent variables especially ICA. As stated in McCroskey, Booth-Butterfield, and Payne (1989), the lower grade average is often related with high level of communication apprehension. In addition, higher communication apprehension is always implicated with poorer outcomes of academic achievement (McCroskey et al., 1989). Cumulative GPA was measured by the recent actual grade obtained before the time of collecting data.

### **3.5.5 Frequency of English Language Used**

Frequency of English language used was also postulated to affect dependent variables. In addition, the students who have more chances to practice English were assumed having less ICA. As stated in Natharee Ritthirat and Thanyapa Chiramanee (2014), the students were afraid of and worried about speaking English due to primarily from inadequate vocabulary and lack of speaking practice. Frequency of English language used was measured on an ordinal scale ranging from 1(None) to 5 (Very often).



### **3.5.6 Frequency of Enrollment**

A number of times that student enrolled for particular subjects could pose an effect on dependent variables. As the students become familiar with the subjects, they could gradually adapt their communication style to suit with the context which subsequently experience less anxiety comparing with the student who enrolled for the first time. Level of registration frequency was measured on an ordinal scale ranging from 1(one) to 4 (four).

### **3.5.7 Nationalities of Foreign Instructors**

Nationalities of foreign instructors were also might considered as an important role in affecting the level of ICA. In addition, individuals tend to experience more anxiety as the greater they perceived cultural dissimilarities (Stephan & Stephan's, 1985). For instance, some foreign instructors could place an emphasis on self-reliance and individual responsibilities; however, Thai students could feel more comfortable in in-group harmony and collaboration. As such cultural differences, this could possibly cause an anxiety among Thai students in communicating with their foreign lecturers. Nationalities of foreign instructors were measured as dummy variables.

## **3.6 Statistical Method**

Partial Least Squares (PLS) regression was used to analyze the proposed model in this study. PLS is a statistical method that generalizes and combines feature from principal component analysis and multiple regression. In addition, it obtains determinant values for latent variables for predictive purpose and minimizes the variance of all dependent variables. PLS creates latent variable component scores using the weighted sum of indicators (Chin & Newsted, 1999).

PLS was chosen for this study due to its advantages over the covariance approach. Regarding with this, the advantage of this approach includes theoretical conditions, measurement conditions, distribution considerations, and practical considerations (Falk & Miller, 1992). The PLS approach matches the researcher's research objective as it facilitates the analysis and investigation of large and complex path models. Essentially, it relies on the data which does not require normal data distribution (Chin & Newsted, 1999). PLS analysis was performed using WarpPLS 5.0 developed by Kock (2015).

## **CHAPTER 4**

### **RESULTS**

This chapter provides general information of the data as well as descriptive characteristics of variables. Subsequent information on preparing and analyzing the data are discussed together with hypothesis testing results.

#### **4.1 Sample Characteristics**

The data were gathered from Thai university students studying with foreign instructors in four different subjects. Initially, there were 420 questionnaires distributed for the students to complete during the first phase. However, only 380 questionnaires returned found completed. In addition, 47 questionnaires were found mismatched during the second phase of collecting data. Therefore, usability questionnaires are 333 sets which meet the minimum sample size for PLS (Hoyle, 1995).

Descriptive statistics on the age and GPA of the respondents are shown in Table 4.1. The sample's age is mostly 21 (standard deviation = 1.17) with the average GPA of 2.72 (standard deviation = 0.46). The majority is female accounting for 67 percent. For the student classification, most of them are in their third year (55 percent) followed by fourth year (36 percent) and second year (9 percent). This information is exhibited in Table 4.1, 4.2 and 4.3 consecutively.

**Table 4.1** Descriptive Statistics of Age and GPA (Grade Point Average)

	<b>Mean</b>	<b>Standard deviation</b>
Age( Years)	20.97	1.17
GPA (Grade Point Average)	2.72	0.46

**Table 4.2** Gender

	<b>Number</b>	<b>Percentage</b>
Male	111	33%
Female	222	67%

**Table 4.3** Student Classification

	<b>Number</b>	<b>Percentage</b>
Sophomore	29	9%
Junior	184	55%
Senior	120	36%

The numbers of times that the students have been enrolled in corresponding subjects for this study are reported in Table 4.4. There were 296 students (89 percent) enrolling for the first time which accounts for the majority of them; 34 students (10 percent) for the second time and only 3 students (1 percent) for the third time.

**Table 4.4** Frequency of Enrollment

	<b>Number</b>	<b>Percentage</b>
First time	296	89%
Second time	34	10%
Third time	3	1%

Table 4.5 reports the frequency of English language used which was answered by the students based on how often they have chances to communicate in English in their daily life. Most of them (168) communicate in English often (51 percent); 110 students (33 percent) scored they occasionally communicate in English; 31 students (9 percent) reported of having chances to communicate in English very often. There were 24 students (7 percent) hardly have a chance to speak English. None of them indicated no chance of communication in English.

**Table 4.5** Frequency of English Language Used

	<b>Number</b>	<b>Percentage</b>
Very often	31	9%
Often	168	51%
Occasionally	110	33%
Hardly	24	7%
None	0	0%

## 4.2 Model Assessment

The test of validity and reliability were first conducted to determine properties of the instrument before estimating the structural model. This test was to ensure that the measurement error is kept to a minimum. The test of validity is meant to assure that an instrument assessed what it was designed to measure (Chin, 1998). Construct validity comprising convergent validity and discriminant validity were tested. Convergent validity was conducted first then followed by discriminant validity. Testing of convergent validity determines whether the items that should be related are related into a single construct (Chin, 1998). Table of combined loading and cross-loading was used to determine the convergent validity of measurement. According to Hair, Black, Babin, and Anderson (2009), good convergent validity should have the loadings that equal to or greater than 0.50. However, one indicator of social composure and another indicator from social experience had the loadings below 0.50. Accordingly, these two items were removed from the analysis. Table of combined factor loadings and cross-loadings are exhibited in Table 4.6

**Table 4.6** Combined Factor Loadings and Cross-Loading

	<b>CCQ</b>	<b>MCCQ</b>	<b>MCQ</b>	<b>BCQ</b>	<b>SCOM</b>	<b>SCON</b>	<b>SOEX</b>	<b>APDIS</b>	<b>ARTI</b>	<b>WIT</b>	<b>ICA</b>
CCQ1	<b>(0.698)</b>	-0.139	-0.081	0.148	0.055	-0.08	0.116	-0.081	-0.073	-0.07	0.066
CCQ2	<b>(0.522)</b>	-0.024	0.011	-0.03	-0.069	0.099	0.12	-0.073	0.328	-0.043	0.002
CCQ3	<b>(0.765)</b>	-0.07	0.136	-0.044	-0.125	0.049	-0.05	0.05	0.078	-0.038	-0.021
CCQ4	<b>(0.801)</b>	-0.107	0.038	-0.034	0.024	0.036	-0.082	0.023	-0.03	0.102	-0.071
CCQ5	<b>(0.741)</b>	0.063	-0.17	0.045	0.211	-0.044	-0.058	-0.001	-0.329	-0.006	0.033
CCQ6	<b>(0.564)</b>	0.359	0.075	-0.107	-0.146	-0.053	0.005	0.071	0.156	0.042	0.002
MCCQ7	0.179	<b>(0.672)</b>	-0.196	0.145	-0.156	0.041	-0.148	0.111	0.083	0.019	0.001
MCCQ8	-0.111	<b>(0.717)</b>	0.417	-0.135	0.049	0.036	-0.053	-0.08	0.079	-0.007	-0.047
MCCQ9	-0.004	<b>(0.852)</b>	-0.038	-0.107	0.036	0.003	0.04	0.062	-0.029	0.011	0.012
MCCQ10	-0.052	<b>(0.711)</b>	-0.19	0.128	0.054	-0.078	0.145	-0.098	-0.124	-0.023	0.032
MCQ11	0.004	0.135	<b>(0.786)</b>	-0.155	0.159	0.077	0.13	-0.111	-0.02	-0.062	0.004
MCQ12	0.02	0.099	<b>(0.839)</b>	0.043	0.125	0.008	-0.109	0.054	-0.057	-0.018	-0.053
MCQ13	-0.046	0.056	<b>(0.817)</b>	0.048	0	-0.007	-0.1	0.062	0.012	0.088	0.027
MCQ14	0.027	-0.118	<b>(0.785)</b>	-0.071	-0.182	0.031	0.022	-0.036	-0.026	-0.014	0.016
MCQ15	-0.005	-0.226	<b>(0.633)</b>	0.161	-0.137	-0.137	0.085	0.032	0.117	0.005	0.009
BCQ16	-0.054	-0.012	0.208	<b>(0.689)</b>	0.113	-0.037	-0.103	0.031	0.093	-0.04	0.028
BCQ17	-0.014	0.113	-0.074	<b>(0.768)</b>	-0.284	0.064	0.06	0.009	0.159	-0.014	-0.026
BCQ18	0.045	0.022	-0.129	<b>(0.822)</b>	0.083	0.019	0.017	-0.068	-0.03	0.019	0.026
BCQ19	0.023	0.033	-0.043	<b>(0.817)</b>	0.087	-0.037	0.008	0.082	-0.112	-0.021	0.01
BCQ20	-0.009	-0.154	0.068	<b>(0.804)</b>	0.001	-0.011	0.006	-0.05	-0.086	0.051	-0.035
SCOM1	-0.015	0.038	0.052	-0.072	<b>(0.888)</b>	-0.032	-0.044	0.028	0.024	-0.007	0.036
SCOM2	0.003	-0.018	0.022	0.076	<b>(0.898)</b>	-0.014	-0.05	-0.048	-0.053	-0.035	-0.05
SCOM3	-0.013	0.059	-0.017	-0.035	<b>(0.911)</b>	-0.036	0.007	0.001	-0.06	-0.085	-0.016
SCOM4	-0.078	0.044	-0.074	0.057	<b>(0.872)</b>	-0.042	0.007	-0.044	0.107	0.021	-0.005
SCOM5	0.184	-0.22	0.028	-0.045	<b>(0.494)</b>	0.224	0.145	0.114	-0.025	0.194	0.065
SCON6	0.087	-0.156	0.049	-0.037	0.053	<b>(0.828)</b>	0.029	-0.041	-0.003	-0.035	-0.022
SCON7	0.109	0.038	-0.039	-0.037	0.029	<b>(0.791)</b>	-0.164	-0.013	0.008	0.234	0.004
SCON8	-0.025	0.019	-0.054	0	0.131	<b>(0.824)</b>	0.062	-0.025	-0.048	-0.131	-0.02

**Table 4.6** (Continued)

	CCQ	MCCQ	MCQ	BCQ	SCOM	SCON	SOEX	APDIS	ARTI	WIT	ICA
SCON9	-0.132	0.081	-0.018	0.136	-0.007	<b>(0.713)</b>	-0.144	0.096	-0.024	-0.048	0.062
SCON10	-0.062	0.035	0.067	-0.052	-0.24	<b>(0.708)</b>	0.223	-0.005	0.075	-0.02	-0.019
SOEX11	-0.005	-0.115	-0.173	0.054	0.054	0.079	<b>(0.796)</b>	-0.046	-0.094	0.084	0.047
SOEX12	0.012	0.013	0.023	-0.079	-0.036	-0.027	<b>(0.898)</b>	0.015	-0.001	0.028	-0.009
SOEX13	-0.002	0.01	0.014	-0.022	-0.029	-0.008	<b>(0.902)</b>	0.027	0.003	-0.076	-0.042
SOEX14	0.066	-0.087	0.171	0.023	-0.016	-0.042	<b>(0.769)</b>	0.108	-0.059	0.022	0.057
SOEX15	-0.151	0.371	-0.072	0.081	0.075	0.004	<b>(0.370)</b>	-0.228	0.32	-0.109	-0.097
APDIS16	0.072	-0.038	-0.21	0.038	0.198	0.04	-0.006	<b>(0.692)</b>	-0.13	-0.039	0.011
APDIS17	0.069	0.07	0.016	-0.053	-0.089	-0.007	0.052	<b>(0.772)</b>	0.032	0.081	0.064
APDIS18	0.04	-0.079	0.12	0.033	0.072	0.115	-0.285	<b>(0.682)</b>	0.015	0.011	0.055
APDIS19	-0.081	0.016	-0.01	0.022	-0.193	-0.082	0.11	<b>(0.767)</b>	0.046	-0.001	0.013
APDIS20	-0.097	0.019	0.084	-0.035	0.043	-0.054	0.105	<b>(0.706)</b>	0.029	-0.059	-0.148
ARTI21	0.038	-0.132	0.006	0.033	0.09	0.048	-0.055	-0.04	<b>(0.794)</b>	0.054	-0.083
ARTI22	0.088	-0.002	-0.09	-0.006	-0.122	0.04	0.036	0.003	<b>(0.824)</b>	-0.011	0.025
ARTI23	-0.028	0.088	-0.054	-0.032	-0.025	-0.059	0.04	0.005	<b>(0.811)</b>	0.045	-0.064
ARTI24	-0.006	-0.064	0.128	-0.088	0.049	-0.073	-0.036	0.079	<b>(0.829)</b>	0.019	0.107
ARTI25	-0.111	0.131	0.009	0.115	0.013	0.056	0.017	-0.058	<b>(0.673)</b>	-0.127	0.014
WIT26	0.016	0.111	0.048	-0.139	-0.101	-0.031	0.047	-0.23	-0.211	<b>(0.656)</b>	-0.075
WIT27	-0.006	-0.029	0.093	0.058	-0.073	0.005	0	-0.133	0.017	<b>(0.856)</b>	-0.019
WIT28	-0.059	0.131	-0.014	-0.009	-0.121	-0.035	-0.07	-0.032	0.026	<b>(0.80)</b>	-0.021
WIT29	0.029	-0.058	-0.124	0.003	0.216	0.025	0.014	0.169	0.004	<b>(0.724)</b>	0.053
WIT30	0.032	-0.163	-0.015	0.07	0.102	0.039	0.021	0.25	0.149	<b>(0.67)</b>	0.064
ICA1	-0.057	-0.048	-0.074	-0.009	-0.011	-0.161	0.17	-0.083	0.052	0.104	<b>(0.665)</b>
ICA2	0.11	-0.066	-0.027	0.101	0.012	0.037	-0.039	0.078	-0.054	-0.068	<b>(0.73)</b>
ICA3	-0.113	0.082	0.046	-0.149	-0.098	-0.01	-0.01	-0.063	0.282	0.103	<b>(0.557)</b>
ICA4	-0.005	-0.065	0.072	0.005	0.115	-0.005	-0.112	0.158	0.048	-0.013	<b>(0.74)</b>
ICA5	-0.091	0.186	0.027	-0.17	-0.067	-0.158	0.116	-0.152	0.107	0.205	<b>(0.611)</b>
ICA6	-0.022	0.043	0.11	0.024	0.014	0.063	-0.153	0.099	-0.022	-0.014	<b>(0.808)</b>

**Table 4.6** (Continued)

	<b>CCQ</b>	<b>MCCQ</b>	<b>MCQ</b>	<b>BCQ</b>	<b>SCOM</b>	<b>SCON</b>	<b>SOEX</b>	<b>APDIS</b>	<b>ARTI</b>	<b>WIT</b>	<b>ICA</b>
ICA7	0.023	0.046	-0.029	-0.117	0.031	-0.078	0.052	-0.151	0.028	0.174	<b>(0.534)</b>
ICA8	0.052	-0.057	0.038	0.01	0.027	0.083	-0.087	0.084	-0.039	-0.012	<b>(0.812)</b>
ICA9	-0.12	0.15	-0.038	-0.097	0.007	-0.007	0.103	-0.112	0.076	-0.019	<b>(0.707)</b>
ICA10	0.013	0.017	-0.055	-0.032	0.067	0.034	0.104	-0.181	0.03	-0.075	<b>(0.61)</b>
ICA11	0.026	-0.089	-0.03	0.13	-0.083	0.004	-0.062	0.102	-0.104	-0.042	<b>(0.809)</b>
ICA12	-0.008	0.091	-0.048	-0.138	-0.138	0.008	0.134	-0.176	0.011	-0.019	<b>(0.682)</b>
ICA13	0.068	-0.061	0.008	0.149	-0.039	0.067	-0.047	0.145	-0.138	-0.126	<b>(0.761)</b>
ICA14	0.066	-0.129	-0.021	0.143	0.131	0.042	-0.055	0.073	-0.137	-0.078	<b>(0.797)</b>

Next, discriminant validity was determined to ensure that there were not overlapping factors. According to Kline (2005), discriminant validity was tested by comparing correlations among each latent variables with the square roots of the average variances extracted (AVE). Discriminant validity existed when the square root of the average variance extracted is higher than any of the correlations involving that latent variable as suggested by Fornell and Larcker (1981). The result is shown on the table of correlations among latent variables with the square roots of the average variances extracted on the diagonal as reported in Table 4.7. From the table, all the measurement instruments passed the criteria for discriminant validity assessment.



**Table 4.7** Variable Correlations and Average Variance Extracted (AVE)

	CCQ	MCCQ	MCQ	BCQ	SCOM	SCON	SOEX	APDIS	ARTI	WIT	ICA
CCQ	<b>(0.69)</b>										
MCCQ	0.53***	<b>(0.741)</b>									
MCQ	0.386***	0.528***	<b>(0.775)</b>								
BCQ	0.487***	0.532***	0.627***	<b>(0.781)</b>							
SCOM	0.318***	0.315***	0.427***	0.399***	<b>(0.901)</b>						
SCON	0.126*	0.303***	0.345***	0.293***	0.081	<b>(0.775)</b>					
SOEX	0.323***	0.364***	0.529***	0.461***	0.310***	0.582***	<b>(0.85)</b>				
APDIS	0.289***	0.304***	0.332***	0.333***	0.167**	0.471***	0.51***	<b>(0.725)</b>			
ARTI	0.239***	0.118*	0.200***	0.291***	0.656***	-0.006	0.126*	0.01	<b>(0.789)</b>		
WIT	0.243***	0.275***	0.302***	0.385***	0.157**	0.377***	0.469***	0.415***	0.003	<b>(0.745)</b>	
ICA	0.037	-0.118*	-0.236***	-0.122*	-0.323***	-0.093	-0.136*	-0.115*	-0.226***	-0.014*	<b>(0.707)</b>

**Note:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

- 1) CCQ= Cognitive CQ; MCCQ= Metacognitive CQ; MCQ= Motivational CQ; BCQ=Behavioral CQ; SCOM= Social composure; SCON= Social confirmation; SOEX= Social experience; APDIS= Appropriate disclosure; ARTI= Articulation; WIT=Wit; ICA= Intercultural Communication Apprehension
- 2) AVEs are reported in parentheses

Second, reliability analysis was conducted to measure the consistency of the measurement instrument (Nunnally, 1978). Both Cronbach's alpha coefficient and composite reliability were conducted. Cronbach's alpha coefficient indicates the overall reliability of a questionnaire and values around 0.70 is considered acceptable as suggested by Kline (1999). The result from the test indicated that Cronbach's alpha coefficients of all latent variables were above 0.70 which met the requirement.

Besides Cronbach's alpha coefficient, composite reliability was also conducted. Composite reliability is another measure of reliability that considers taking indicator loading in its calculation. The cut off value of 0.70 will suffice (Hair et al., 2009). The result indicated that all latent variables met with the composite reliability requirement with the value of each latent variable above 0.70. Accordingly, the results of this reliability test ensure the decent reliability level of the measurement instrument in this study as reported in Table 4.8

**Table 4.8** Cronbach's Alpha Coefficient and Composite Reliability of Latent Variables

	CCQ	MCCQ	MCQ	BCQ	SCOM	SCON	SOEX	APDIS	ARTI	WIT	ICA
<b>Cronbach's</b>											
<b>Alpha (<math>\alpha</math>)</b>	0.773	0.772	0.831	0.839	0.922	0.832	0.870	0.773	0.846	0.796	0.921
<b>Composite</b>											
<b>reliability</b>	0.842	0.829	0.882	0.887	0.945	0.882	0.912	0.847	0.891	0.861	0.932

**Note:** CCQ= Cognitive CQ; MCCQ= Metacognitive CQ; MCQ= Motivational CQ; BCQ=Behavioral CQ; SCOM= Social composure; SCON= Social confirmation; SOEX= Social experience; APDIS= Appropriate disclosure; ARTI= Articulation; WIT=Wit; ICA= Intercultural Communication Apprehension

Regarding with test for the existence of multicollinearity, full collinearity Variance Inflation Factors (VIF) was conducted in order to measure the degree of collinearity among variables, including both indicators and latent variables (Kock &

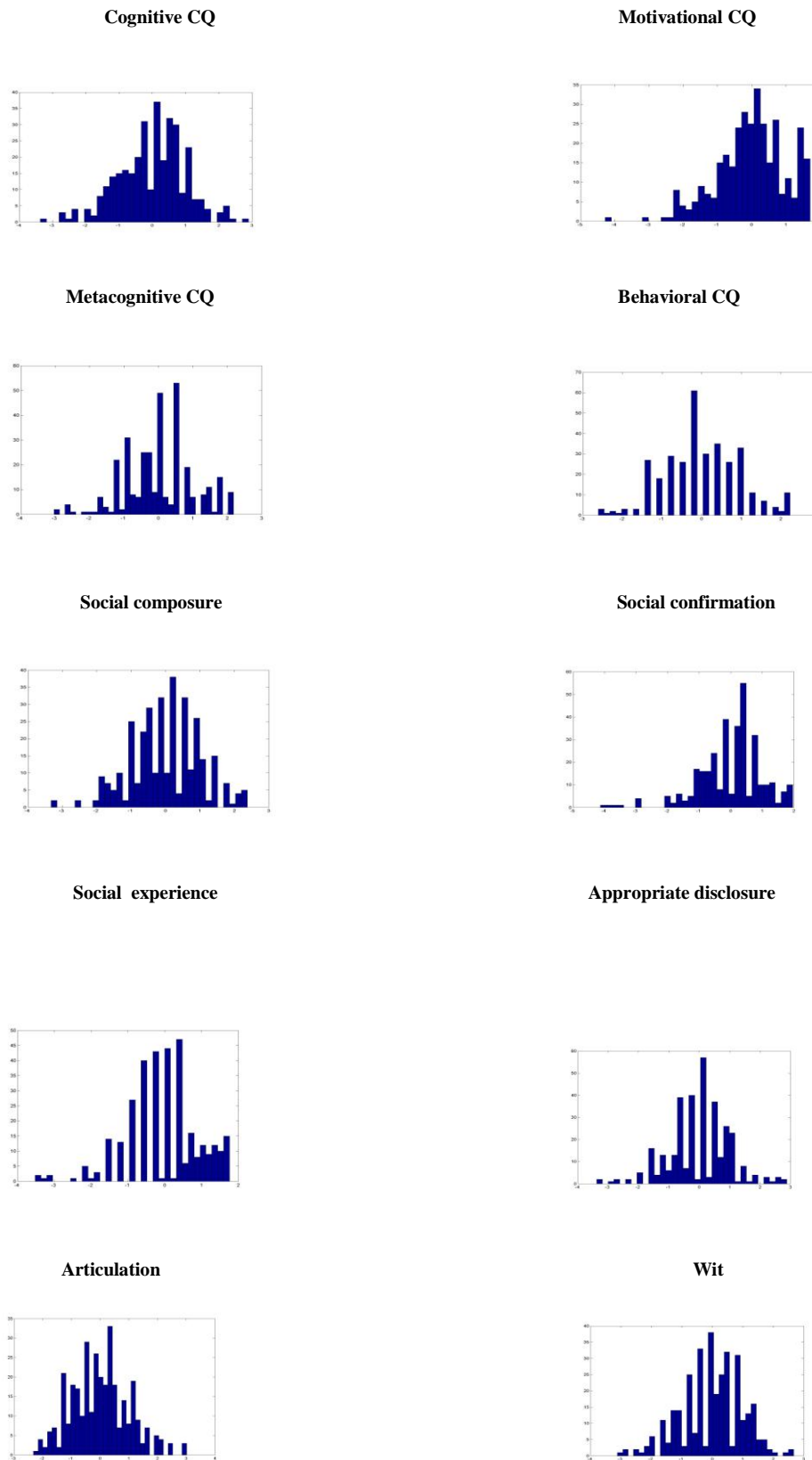
Lynn, 2012). Full collinearity VIFs of 3.3 or lower is adequate for latent variables in PLS-based structural equation model (Kock & Lynn, 2012). The results suggested the existence of no multicollinearity as all of latent variables have the full VIF values lower than 3.3. The results of Full VIF statistics are shown in Table 4.9.

**Table 4.9** Full VIF Statistics

CCQ	MCCQ	MCQ	BCQ	SCOM	SCON	SOEX	APDIS	ARTI	WIT	ICA	AGE	MALE	EDU	GPA	LEVEL	REGIST
1.691	1.861	2.202	2.198	2.440	1.764	2.255	1.575	1.971	1.509	1.209	1.779	1.091	1.807	1.284	1.352	1.219

**Note:** CCQ= Cognitive CQ; MCCQ= Metacognitive CQ; MCQ= Motivational CQ; BCQ=Behavioral CQ; SCOM= Social composure; SCON= Social confirmation; SOEX= Social experience; APDIS= Appropriate disclosure; ARTI= Articulation; WIT=Wit; ICA= Intercultural Communication Apprehension; AGE= Age; MALE= Gender; EDU= Student classification; GPA= Cumulative GPA; LEVEL= Frequency of English language used; REGIST= Frequency of enrollment

In regard to normality test, the classic Jarque-Bera test (Jarque & Bera, 1980; Bera & Jarque, 1981) was employed in order to test whether the variables follow normal distribution pattern. The results report that most latent variables are not normally distributed which made it justified in employing PLS for the analysis in this study since it does not require normal data distribution (Chin & Newsted, 1999). Accordingly, results of Jarque-Bera test is reported in Table 4.10. Table of Skewness and Kurtosis is shown in Table 4.11. In addition, the resulting histogram of main variables is shown in Figure 4.1.



**Figure 4.1** Histogram of Main Variables

**Table 4.10** Jarque-Bera Test of Normality

CCQ	MCCQ	MCQ	BCQ	SCOM	SCON	SOEX	APDIS	ARTI	WIT	ICA	AGE	MALE	EDU	GPA	LEVEL	REGIST
Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No

**Note:** Yes= Supported; No= Not Supported

CCQ= Cognitive CQ; MCCQ= Metacognitive CQ; MCQ= Motivational CQ; BCQ=Behavioral CQ; SCOM= Social composure; SCON= Social confirmation; SOEX= Social experience; APDIS= Appropriate disclosure; ARTI= Articulation; WIT=Wit; ICA= Intercultural Communication Apprehension; AGE= Age; MALE= Gender; EDU= Student classification; GPA= Cumulative GPA; LEVEL= Frequency of English language used; REGIST= Frequency of enrollment

**Table 4.11** Table of Skewness (Top) and Kurtosis (bottom) Coefficients

CCQ	MCCQ	MCQ	BCQ	SCOM	SCON	SOEX	APDIS	ARTI	WIT	ICA	AGE	MALE	EDU	GPA	LEVEL	REGIST
-0.263	-0.083	-0.527	-0.15	0.052	-0.823	-0.56	-0.17	0.13	-0.3	0.11	1.099	0.707	-0.23	0.62	-0.259	2.939
0.341	0.199	0.564	0.175	-0.15	1.863	0.74	0.808	0.01	0.06	-0.9	2.111	-1.5	-0.61	-0.29	-0.216	8.363

**Note:** CCQ= Cognitive CQ; MCCQ= Metacognitive CQ; MCQ= Motivational CQ; BCQ=Behavioral CQ; SCOM= Social composure; SCON= Social confirmation; SOEX= Social experience; APDIS= Appropriate disclosure; ARTI= Articulation; WIT=Wit; ICA= Intercultural Communication Apprehension; AGE= Age; MALE= Gender; EDU= Student classification; GPA= Cumulative GPA; LEVEL= Frequency of English language used; REGIST= Frequency of enrollment

### 4.3 Test of Hypotheses

The following reports the results of the findings of all thirty hypotheses. P-value is used to determine the significance of the results (Kline, 2004). In addition, bootstrapping technique is employed in the resampling procedure in which the sampling distribution is estimated by taking repeated samples from the data set (Efron, 1979). In addition, 100 subsamples were used in resampling procedure for this study as recommended by Efron, Rogosa, and Tibshirani (2004). The summary of Path coefficients and R-squared are reported in Table 4.12 - 4.18.

The results of H<sub>1</sub>-H<sub>24</sub> regarding the relationships between each aspect of Cultural Intelligence (CQ) and each aspect of Communicative Adaptability (CA) are reported in Table 4.12- 4.18 as followed:

Table 4.12 reports the results of H<sub>1</sub>-H<sub>4</sub> regarding the relationships between each aspect of CQ and Social composure as represented from column one to column four. H<sub>1</sub> proposes a positive relationship between cognitive CQ and social composure. The result confirms its positive relationship at the significant level below 0.1 percent ( $\beta=0.241$ ;  $p<0.001$ ). H<sub>2</sub> predicts a positive relationship between metacognitive CQ and social composure. The result reveals that there is a positive relationship between these two variables at the significant level below 0.1 percent ( $\beta=0.221$ ;  $p<0.001$ ). H<sub>3</sub> proposes a positive relationship between motivational CQ and social composure. The result substantiates a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta=0.339$ ;  $p=0 <0.001$ ). H<sub>4</sub> predicts a positive relationship between behavioral CQ and social composure. The finding shows a positive relationship with significant level below 0.1 percent ( $\beta=0.313$ ;  $p<0.001$ ). Therefore, hypotheses 1, 2, 3 and 4 are supported.



**Table 4.12** PLS Results

Independent Variables	Dependent Variable			
	Social Composure			
	(1) H <sub>1</sub>	(2) H <sub>2</sub>	(3) H <sub>3</sub>	(4) H <sub>4</sub>
Cognitive CQ	.241**			
Metacognitive CQ		.221***		
Motivational CQ			.339*	
Behavioral CQ				.313***
Age	.092	.09	.075	.075
Male dummy variable	.128**	.133*	.129***	.110**
Student classification	-.126*	-.130*	-.124*	-.093
Cumulative GPA	.095*	.072	.072	.094*
Frequency of English language used	.352***	.365***	.314**	-.033***
Frequency of enrollment	.006	.008	.010	-.003
R-square	-.29	.28	.34	-.32

**Notes:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported

Table 4.13 reports the results of H<sub>5</sub>-H<sub>8</sub> regarding the relationships between each aspect of CQ and Social confirmation as represented from column one to column four. H<sub>5</sub> proposes a positive relation between cognitive CQ and social confirmation. A positive relationship is found between these two variables. However, it is not statistically significant at 5 percent ( $\beta = 0.087$ ;  $p = 0.115$ ). H<sub>6</sub> predicts a positive relationship between metacognitive CQ and social confirmation. The result shows a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta = 0.221$ ;  $p < 0.001$ ). H<sub>7</sub> proposes a positive relationship between motivational CQ and social confirmation. The result shows a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta = 0.329$ ;  $p < 0.001$ ). H<sub>8</sub> predicts a positive relationship between behavioral

CQ and social confirmation. The result shows a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta=0.270$ ;  $p<0.001$ ). Thus, hypotheses 6, 7 and 8 are supported.

**Table 4.13** PLS Results

Independent Variables	Dependent Variable			
	Social Confirmation			
	(1) H <sub>5</sub>	(2) H <sub>6</sub>	(3) H <sub>7</sub>	(4) H <sub>8</sub>
Cognitive CQ	.087			
Metacognitive CQ		.281***		
Motivational CQ			.329*	
Behavioral CQ				.270*
Age	-.007	-.003	-.019	-.018
Male dummy variable	-.006	-.007	-.010	-.025
Student classification	-.30	-.051	-.039	-.010
Cumulative GPA	.018	.004	.006	.026
Frequency of English language used	.142*	.089	.059	0.87
Frequency of enrollment	.027	.035	.036	.025
R-square	.04	.10	.13	.10

**Notes:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported

Table 4.14 reports the results of H<sub>9</sub>-H<sub>12</sub> regarding the relationships between each aspect of CQ and Social experience as represented from column one to column four. H<sub>9</sub> proposes a positive relationship between cognitive CQ and social experience. The finding shows that there is a positive relationship between these two variables with statistically significant below 0.1 percent ( $\beta=0.294$ ;  $p<0.001$ ). H<sub>10</sub> predicts a positive relationship between metacognitive CQ and social experience. A positive relationship is found with statistically significant below 0.1 percent ( $\beta=0.342$ ;

$p < 0.001$ ).  $H_{11}$  proposes a positive relationship between motivational CQ and social experience. The result confirms a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta = 0.515$ ;  $p < 0.001$ ).  $H_{12}$  proposes a positive relationship between behavioral CQ and social experience. The result confirms a positive and strong relationship between these two variables at the significant level below 1 percent ( $\beta = 0.446$ ;  $p < 0.001$ ). Therefore, hypotheses 9, 10, 11 and 12 are supported.

**Table 4.14** PLS Results

Independent Variables	Dependent Variable			
	Social Experience			
	(1) $H_9$	(2) $H_{10}$	(3) $H_{11}$	(4) $H_{12}$
Cognitive CQ	.294***			
Metacognitive CQ		.342***		
Motivational CQ			.515*	
Behavioral CQ				.446*
Age	.000	-.002	-.024	-.023
Male dummy variable	.072	.076	.070	.044
Student classification	.036	-.047	-.039	-.008
Cumulative GPA	.133**	.102*	.103**	.135**
Frequency of English language used	.170**	.165**	.090	.128
Frequency of enrollment	.006	.023	.026	.008
R-square	.17	.20	.33	.28

**Notes:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported

Table 4.15 reports the results of  $H_{13}$ - $H_{16}$  regarding the association between each aspect of CQ and Appropriate disclosure as represented from column one to column four.  $H_{13}$  proposes a positive relationship between cognitive CQ and

appropriate disclosure. The result reveals a positive relationship between them at the significant level below 0.1 percent ( $\beta=0.253$ ;  $p<0.001$ ). H<sub>14</sub> predicts a positive relationship between metacognitive CQ and appropriate disclosure. The result reveals a positive relationship at statistically significant level below 0.1 percent ( $\beta=0.268$ ;  $p<0.001$ ). H<sub>15</sub> proposes a positive relationship between motivational CQ and appropriate disclosure. A positive relationship between these two variables is found at the significant level below 0.1 percent ( $\beta=0.299$ ;  $p<0.001$ ). H<sub>16</sub> proposes a positive relationship between behavioral CQ and appropriate disclosure. A positive relationship between these two variables is found at significant level below 0.1 percent ( $\beta=0.302$ ;  $p<0.001$ ). Accordingly, hypotheses 13, 14, 15 and 16 are supported.

**Table 4.15** PLS Results

Independent Variables	Dependent Variable			
	Appropriate Disclosure			
	(1) H <sub>13</sub>	(2) H <sub>14</sub>	(3) H <sub>15</sub>	(4) H <sub>16</sub>
Cognitive CQ	.253***			
Metacognitive CQ		.268***		
Motivational CQ			.299***	
Behavioral CQ				.302***
Age	-.060	-.062	-.077	-.078
Male dummy variable	.015	.019	.017	-.002
Student classification	.013	.006	.018	0.47
Cumulative GPA	.046	.020	.022	.043
Frequency of English language used	.127*	.130*	.106*	.115*
Frequency of enrollment	.027	.042	.043	.031
R-square	.10	.11	.13	.13

**Notes:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported

Table 4.16 reports the results of H<sub>17</sub>-H<sub>20</sub> regarding the association between each aspect of CQ and Articulation as represented from column one to column four. H<sub>17</sub> proposes a positive relationship between cognitive CQ and articulation. The finding substantiates a positive relationship between them at the significant level below 1 percent ( $\beta=0.172$ ;  $p=0.002$ ). H<sub>18</sub> proposes a positive relationship between metacognitive CQ and articulation. Although the results shows positive relationship between them; however, it is not statistically significant at 5 percent ( $\beta=0.032$ ;  $p=0.296$ ). H<sub>19</sub> proposes a positive relationship between motivational CQ and articulation. The result reveals positive relationship between these two variables at the significant level below 5 percent ( $\beta= 0.104$ ;  $p=0.039$ ). H<sub>20</sub> proposes a positive relation between behavioral CQ and articulation. A positive and strong relationship between these two variables is shown at the significant level below 0.1 percent ( $\beta=0.213$ ;  $p<0.001$ ). Thus, hypotheses 17, 19 and 20 are supported.

**Table 4.16** PLS Results

Independent Variables	Dependent Variable			
	Articulation			
	(1) H <sub>17</sub>	(2) H <sub>18</sub>	(3) H <sub>19</sub>	(4) H <sub>20</sub>
Cognitive CQ	.172***			
Metacognitive CQ		.032		
Motivational CQ			.104*	
Behavioral CQ				.213***
Age	.068	.063	.060	.056
Male dummy variable	.088*	.094*	.092*	.076
Student classification	-.078	-.068	-.070	-.055
Cumulative GPA	.149**	.135**	.134**	.147***
Frequency of English language used	.238***	.283***	.257***	.228***
Frequency of enrollment	.039	.047	.048	.041
R-square	.16	.13	.14	.17

**Notes:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported

Table 4.17 reports the results of H<sub>21</sub>-H<sub>24</sub> regarding the association between each aspect of CQ and Wit as represented from column one to column four. H<sub>21</sub> proposes a positive relationship between cognitive CQ and wit. The results shows positive relationship between them at the statistically significant level below 0.1 percent ( $\beta=0.211$ ;  $p<0.001$ ). H<sub>22</sub> predicts a positive relationship between metacognitive CQ and wit. The result suggests a positive relationship between these two variables at the significant level below 0.1 percent ( $\beta=0.245$ ;  $p<0.001$ ). H<sub>23</sub> proposes a positive relationship between motivational CQ and wit. The result shows a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta=0.278$ ;  $p<0.001$ ). H<sub>24</sub> proposes a positive relationship between behavioral CQ and wit. The result reveals a positive and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta=0.367$ ;  $p<0.001$ ). Therefore, hypotheses 21, 22, 23 and 24 are supported.

**Table 4.17** PLS Results

Independent Variables	Dependent Variable			
	Wit			
	(1) H <sub>21</sub>	(2) H <sub>22</sub>	(3) H <sub>23</sub>	(4) H <sub>24</sub>
Cognitive CQ	.211***			
Metacognitive CQ		.245***		
Motivational CQ			.278***	
Behavioral CQ				.367***
Age	.088	.088	-.102	-.105
Male dummy variable	.163***	.166***	.164***	.139***
Student classification	.105	.097	.108*	.139*
Cumulative GPA	.026	.004	.006	.030
Frequency of English language used	.076	.072	.049	.031
Frequency of enrollment	-.044	-.032	-.031	-.044
R-square	.10	.11	.13	.18

**Notes:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported

The results of H<sub>25</sub>-H<sub>30</sub> regarding the relationships between each aspect of Communicative Adaptability (CA) and Intercultural Communication Apprehension (ICA) are reported in Table 4.18 as followed:

Table 4.18 reports the results of H<sub>25</sub>-H<sub>30</sub> regarding the association between each aspect of Communicative Adaptability (CA) and Intercultural Communication Apprehension (ICA) as represented from column one to column six. H<sub>25</sub> predicts a negative relationship between social composure and intercultural communication apprehension (ICA). The result shows a negative and strong relationship between these two variables at the significant level below 0.1 percent ( $\beta = -0.255$ ;  $p < 0.001$ ). H<sub>26</sub> predicts a negative relationship between social confirmation and intercultural communication apprehension (ICA). Although the result suggests a negative relationship between these two variables, it is not statistically significant at 5 percent ( $\beta = -0.030$ ;  $p = 0.305$ ). H<sub>27</sub> predicts a negative relationship between social experiences and intercultural communication apprehension (ICA). The result reveals a negative relationship; however, it is not statistically significant at 5 percent ( $\beta = -0.047$ ;  $p = 0.214$ ). H<sub>28</sub> predicts a negative relationship between appropriate disclosure and intercultural communication apprehension (ICA). The result reveals that there is a negative relationship between these two variables. Nevertheless, it is not statistically significant at 5 percent ( $\beta = -0.055$ ;  $p = 0.127$ ). H<sub>29</sub> predicts a negative relationship between articulation and intercultural communication apprehension (ICA). The result shows a negative and strong relationship between these two variables at significant level below 0.1 percent ( $\beta = -0.192$ ;  $p < 0.001$ ). H<sub>30</sub> predicts a negative relationship between wit and intercultural communication apprehension (ICA). Remarkably, the finding is in contrast with the prediction. It reveals a positive relationship between these two variables ( $\beta = 0.039$ ;  $p = 0.067$ ). Therefore, hypothesis 25 and 29 are supported.

**Table 4.18** PLS Results

Independent Variables	Dependent Variable					
	Intercultural communication apprehension					
	(1) H <sub>25</sub>	(2) H <sub>26</sub>	(3) H <sub>27</sub>	(4) H <sub>28</sub>	(5) H <sub>29</sub>	(6) H <sub>30</sub>
Social composure	-.255***					
Social confirmation		-.030				
Social experience			-.047			
Appropriate disclosure				-.055		
Articulation					-.192***	
Wit						.039
Age	.082	.059	.059	.056	.072	.063
Male dummy variable	-.062	-.096*	-.092*	-.095*	-.079	-.104*
Student classification	.017	.040	.041	.044	.025	.037
Cumulative GPA	-.006	-.026	-.021	-.025	-.001	-.027
Frequency of English language used	-.070	-.173***	-.166***	-.167***	-.121**	-.185***
Frequency of enrollment	.049	.047	.047	.048	.054	.046
Instructor's nationality: Philippine	-.606***	-.626***	-.614***	-.616***	-.622***	-.641***
Instructor's nationality: Chinese	-.205*	-.197*	-.191*	-.192*	-.184**	-.210*
Instructor's nationality: Bangladeshi	-.152	-.166	-.157	-.156	-.154	-.179
Instructor's nationality: Indian	-.080	-.102	-.092	-.094	-.097	-.105



**Table 4.18** (Continued)

Independent Variables	Dependent Variable					
	Intercultural communication apprehension					
	(1) H <sub>25</sub>	(2) H <sub>26</sub>	(3) H <sub>27</sub>	(4) H <sub>28</sub>	(2) H <sub>29</sub>	(3) H <sub>30</sub>
Instructor's nationality: U.S.	-.057	-.047	-.048	-.045	-.048	-.055
Instructor's nationality: Australian	-.102*	-.124*	-.122*	-.193*	-.105*	-.133*
R-square	.305	.258	.259	.260	.289	.258

**Note:** \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ;

Standardized coefficients are reported. A dummy variable indicating that the nationality of an instructor is Ireland is excluded from the analysis

## CHAPTER 5

### DISCUSSION

This section shows the summary of findings based on the hypothesis testing. Then, the discussion regarding with the findings is presented in the subsequent section.

#### 5.1 Overview of Findings

Out of thirty hypotheses, the result confirms that twenty four hypotheses are supported. Summary of results is reported in Table 5.1

**Table 5.1** Summary of Results

<b>Hypotheses</b>	<b>Supported</b>
H1: Cognitive CQ is positively associated with Social composure	Yes
H2: Metacognitive CQ is positively associated with Social composure	Yes
H3: Motivational CQ is positively associated with Social composure	Yes
H4: Behavioral CQ is positively associated with Social composure	Yes
H5: Cognitive CQ is positively associated with Social confirmation	No
H6: Metacognitive CQ is positively associated with Social confirmation	Yes
H7: Motivational CQ is positively associated with Social confirmation	Yes
H8: Behavioral CQ is positively associated with Social confirmation	Yes

**Table 5.1** (Continued)

<b>Hypotheses</b>	<b>Supported</b>
H9: Cognitive CQ is positively associated with Social experience	Yes
H10: Metacognitive CQ is positively associated with Social experience	Yes
H11: Motivational CQ is positively associated with Social experience	Yes
H12: Behavioral CQ is positively associated with Social experience	Yes
H13: Cognitive CQ is positively associated with Appropriate disclosure	Yes
H14: Metacognitive CQ is positively associated with Appropriate disclosure	Yes
H15: Motivational CQ is positively associated with Appropriate disclosure	Yes
H16: Behavioral CQ is positively associated with Appropriate disclosure	Yes
H17: Cognitive CQ is positively associated with Articulation	Yes
H18: Metacognitive CQ is positively associated with Articulation	No
H19: Motivational CQ is positively associated with Articulation	Yes
H20: Behavioral CQ is positively associated with Articulation	Yes
H21: Cognitive CQ is positively associated with Wit	Yes
H22: Metacognitive CQ is positively associated with Wit	Yes
H23: Motivational CQ is positively associated with Wit	Yes
H24: Behavioral CQ is positively associated with Wit	Yes
H25: Social composure is negatively associated with ICA	Yes
H26: Social confirmation is negatively associated with ICA	No
H27: Social experience is negatively associated with ICA	No
H28: Appropriate disclosure is negatively associated with ICA	No
H29: Articulation is negatively associated with ICA	Yes
H30: Wit is negatively associated with ICA	No

Overall, the result reports that CQ dimensions found to positively and significantly associate with all aspect of CA. Hence, the result implies that the Thai student sample who exhibited higher level of CQ tend to demonstrate higher degree of social composure, social confirmation, social experience, appropriate disclosure, articulation and wit.

Firstly, CQ dimensions are found to be positively and significantly associated with social composure. The results are in line with Olaniran and Williams (1995) suggested that an individual tends to experience less anxiety when he or she knows the communication style and value of other culture. In addition, the findings also coincide with Duran (1983) which reported that possessing the capability to use flexible behavioral repertoire in specific cross-cultural situation could possibly decrease tension within a communication encounter. Accordingly, the result indicates that Thai student sample having high level of CQ tend to experience less anxiety and feel calm while communicating in English with foreign instructor.

CQ dimensions are also reported to have positive association with social confirmation. The results suggest that the students with high level of CQ will more likely to affirm the image that others are attempting to assert. The finding is aligned with Ang and Van Dyne (2008) stating that CQ promotes active thinking about people and situations when cultural backgrounds differ. The finding also coincides with Triandis (1994) stating that CQ reflects knowledge and interpersonal systems of different cultures and subcultures. As such, previous researches supported the results which found that Thai student sample who well equipped with CQ will more likely to recognize and confirm other's projected social image while communicating in English with foreign instructor.

Social experience is also found to have a strong positive association with CQ dimensions. The result suggests that as the students have high CQ, they tend to get along with other people and enjoying meeting people. The result is aligned with previous findings which reported that an individual's intrinsic drive to seek out and enjoy interaction with culturally diverse person is the characteristics of CQ (Ang & Van Dyne, 2008; Ang et al, 2007). Regarding the result, Thai sample student with high CQ tends to show interest in interacting with foreign instructor in English.

Regarding the association with appropriate disclosure, the result confirms positive and significant association with CQ dimensions. The study reveals that the

student with high CQ is more likely to properly assess the intimacy level of others in culturally diverse situation as they are more knowledgeable about interpersonal systems of different cultures. The results are supported by Traindis (1994) stating that cultural knowledge including economic, legal and interpersonal system are represented by CQ. As postulated, the finding indicates that Thai student sample with high CQ tend to properly strategize the level of intimacy while communicating in English with foreign instructor.

The result also report positive association between CQ dimensions and articulation. The findings suggest that the students with high CQ tend to properly express their ideas clearly during cross-cultural interaction. The result is consistent with previous finding suggesting that flexible repertoire and ability to modify both verbal and non-verbal behaviors to make it appropriate to different cultures tend to be characteristics of individuals with high CQ (Ang & Van Dyne, 2008; Earley & Ang, 2003). As proposed, the result reveals that the students with high CQ are more likely to clearly express their ideas in English while communicating with foreign instructor.

Lastly, a strong positive association between CQ dimensions and wit is also found. The results reveal that the student who has high CQ is more likely to use appropriate style of humor in a clever and amusing way that could lessen tension while communicating with foreigners. The finding is parallel with previous finding which mentioned that knowing about what is appropriate in different cultures and ability to observe cultural cues to justify the use of humor in cross-cultural communication are the characteristics of high CQ individuals (Ang & Van Dyne, 2008; Earley & Ang, 2003). Given the findings, the results indicate that Thai sample student who has high CQ tend to properly use appropriate style of humor to dilute anxiety while communicating in English with foreign instructor.

All considered, Thai student sample with high level of CQ tend to demonstrate all six characteristics of CA including feeling calm and collected, confirming the projected social image of others, enjoying meeting people, adapting the level of intimacy, appropriately expressing ideas and using humor to lessen social tension while communicating in English with foreign instructors in classroom.

For the association of each aspect of CA toward Intercultural Communication Apprehension (ICA), only social composure and articulation are found to negatively

and significantly associate with ICA. The result indicates that Thai student sample who is calm, relax and appropriately express the idea clearly in social interaction using English tends to experience less anxiety while communicating with foreign instructor. Actually, the finding is congruent with Duran (1983) as he stated that social composure was found to be significantly correlated with communication apprehension. However, Duran also mentioned that all six dimensions of communicative adaptability were found to correlate with communication apprehension particularly with social composure and social experience. Although the result of this study found only two dimensions being significantly and negatively correlated, there is a possible explanation. Since ICA was measured in the situation where the students individually interact with foreign instructors during the presentation, other aspect of CA might be irrelevant for this context. In addition, there were rules and guideline regarding the dialog, gestures and timing that the students have to follow during the presentation. Hence, other aspects of CA such as social experience, appropriate disclosure, social confirmation and wit might not substantially contribute in lowering the level of ICA in this situation since most of the students have to present according to the guidelines.

Regarding the role of CQ and CA toward ICA in this study, the finding shows that CQ, social composure and articulation have played important roles in lowering the level of ICA or anxiety among the students while communicating with their foreign instructors in the classroom. In particular, CQ contributes positively to social composure and articulation which led the students to feel more calm and appropriately express the idea clearly while communicating with others. As such, the students are found to experience less anxiety while communicating with their foreign instructors in the classroom as well.

All in all, this study indicates that the Thai sample students who are well equipped with high level of CQ tend to feel more relaxed and clearly express ideas while communicating with others in English which in turn lessen the feeling of anxiety during communicating with their foreign instructors in the classroom setting.

## **CHAPTER 6**

### **CONCLUSION**

This chapter aims primarily to summarize the overall research with a brief summary of the study. Subsequently, research limitation and practical implications are discussed. Lastly, suggestions for future research are recommended.

#### **6.1 Summary**

Globalization has fostered people to communicate effectively across the nations. Accordingly, cultural knowledge and foreign languages particularly English language have been in great concern across many industries especially in international higher education institutes. In Thailand, particularly, many universities have been increasingly started to offer international programs in order to respond with the fast paced globalization. However, most international Thai college students might not have been well equipped with the cultural knowledge and adequate English language to cope with the diverse cultural campus environment. Regarding with this, the students may experience with intercultural communication apprehension (ICA) or an anxiety while interacting with foreigners in this cultural diverse academic setting especially with their foreign instructors. The effect of ICA could contribute to the negative consequences in student success both socially and academically.

Given the undesirable effects of ICA that would occur among Thai students, this study aims to investigate the role of cultural intelligence (CQ) and communicative adaptability (CA) in lowering intercultural communication apprehension (ICA) among Thai college students during interaction with a foreign instructor in a classroom. Overall, the results reveal that cultural intelligence (CQ) positively associate with all six aspects of communicative adaptability (CA). In addition, two aspects of CA which are social composure and articulation are found to significantly associate with lower intercultural communication apprehension (ICA).

From the above findings, this study confirmed the positive contribution of CQ that would facilitate the students to feel more calm and appropriately express ideas clearly which could help in lessen anxiety while communicating in English with a foreign instructor in a classroom.

## **6.2 Limitations**

There are several limitations regarding this study that need to be discussed. First of all, the measures for this study might possibly be considered as subjective since self-reported questionnaire survey was used to collect the data. Secondly, due to the fact that the sample was collected from one university, the generalizability of the findings tends to be restricted. Lastly, the finding of this study could only be concluded as relationship rather than causality due to the correlation analysis was mainly used in this research.

## **6.3 Practical Implications**

Given positive contributions of CQ, educators and international education institutes may utilize the findings in order to develop CQ development program to prevent and lessen ICA among Thai international college students. This could be possible and beneficial for the students since CQ is the capability that can be trained (Thomas, 2006). In addition, several studies regarding the effectiveness of the training that help participants improve CQ were also reported (MacNab, 2012; Rehg et al, 2012). Hence, integrating CQ training course as part of academic curriculum is considered necessary in order to facilitate the students to experience less anxiety and feel more comfortable to communicate in English with foreigners particularly with their foreign instructors. However, several issues should be taken into consideration.

Firstly, although CQ requires cumulative process which students can develop over the duration of time; however, acquiring it is quite difficult. As such, CQ training course should be introduced to the students since the early stage of their studies in college when most of them are still not familiar and exposed much with cultural diversity in the campus. Accordingly, the students can accelerate these skills later on



once they have been already equipped with the appropriate cultural knowledge that was developed earlier.

Secondly, the program should be customized and provides practical application specifically for the context of Thai international college students. As stated by Kaeokallaya (2006), language barriers were also found as primary factors contributing to intercultural communication apprehension among international Thai students in an English speaking context. Given the results of this study, the benefits of CQ supports the students to feel calm and relaxed while communicating in English with foreign instructors. Accordingly, introducing the topics regarding the relationship between culture and English language from a perspective that was relevant to Thai international college students as part of CQ development program would be beneficial and helpful.

Lastly, encouraging the students to develop their CQ through experiential learning apart from engaging workshop in the class is highly suggested. According to Thomas (2006), CQ training should be performed not only through classroom but also experiential education. Hence, experiential learning program such as exchange program abroad, work and travel during summer or short trip oversea should be promoted in order to enhance cross-cultural skills where the students can practice these skills through trial and error in real situation.

#### **6.4 Suggestions for Future Research**

Considering the benefits of CQ as reported in the study, there is a need to replicate the study in other context to explore the generalizability of the finding. Other contexts such as Thai students from different education level apart from university level could also be studied. Moreover, Thai student sample should be gathered from several international education institutions in Thailand in order to generalize more about the result.

In addition to the future research approach on CA, the study can employ dispositional approaches in order to investigate CA of individuals across various contexts. Unlike situational approach used for this study, dispositional approach is more appropriate in cross-contextual explanations. As stated in Duran and Kelly

(1984), dispositional approaches can lead to explanations of how people are able to be competent in a number of contexts which require different communication skills. Accordingly, it would be fruitful to employ this approach in order to explain behavioral tendencies regarding communication competence that cut across several communication contexts.

Further study regarding the impact of ICA on academic performance should also be investigated. As stated in McCroskey, Booth-Butterfield, and Pyne (1989, p. 104), “Higher communication apprehension is always implicated with poorer outcomes of academic achievement”. In addition, anxiety feeling while communicating in culturally diverse environment could have an effect on student success (McCroskey et al., 1989). McCroskey further stated that lower grade average and less chance for completing for a college degree are often related with high level of communication apprehension. Given previous findings regarding negative impact of ICA on academic performance, further investigating the impact on Thai international college students would be beneficial in order to validate the results in other context.

Regarding the causality, the researcher proposes conducting an experiment to find a causal effect of CQ on CA and ICA. In addition, the improvement of CA and ICA can be detected after some CQ intervention such as training or educational program have been provided to the students.

Lastly, there is a possibility for future research to investigate the contribution of CQ on CA in other situations. For instance, exploring the contribution of CQ on CA during the job interview or pitch presentation would be useful to explore the findings in other context apart from academic setting situation.

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## **APPENDIX**

### **SURVEY QUESTIONNAIRE**



### **SURVEY QUESTIONNAIRE**

Dear Students,

I am A. Pair Sajampun, lecturer from the Department of Marketing of Martin De Tours School of Management and Economics, and currently taking my Doctor of Philosophy in Communication Arts and Innovation at International College of National Institute of Development Administration, Thailand. I am conducting a study on the Role of Cultural Intelligence and Communicative Adaptability in Lowering Intercultural Communication Apprehension of the Thai International College Students. I would like to request your participation in my study by completing the survey questions below.

This questionnaire is completely anonymous, and whatever information you furnish here will be dealt with utmost confidentiality. Please answer the questions as honestly and possible. There are *no right* or *wrong* answers. Thank you very much.

**PART I. Personal Information**

Name \_\_\_\_\_ Surname \_\_\_\_\_

For each of the following items, please place a check mark  onto the appropriate box.

1. Course Name \_\_\_\_\_ Sec. \_\_\_\_\_
2. Student's ID: \_\_\_\_\_
3. Age \_\_\_\_\_
4. Gender  
 Male     Female
5. Education Level  
 First year     Second year     Third year     Fourth year
6. GPA for the previous semester \_\_\_\_\_
7. Faculty  
 MSM&E     Comm Arts     Arts     Others, please  
specify \_\_\_\_\_
8. How many times have you been enrolled in this subject?  
 1     2     3     4
9. Have you had experienced in spending time or studied abroad?  
 Yes     No (Skip to question 11)
10. If your answer is "Yes" in question no.9, please identify the duration which you  
have had spent time or studied abroad  
 Less than 3 months     3-6 months     1 year-2 years  
 More than 2 years
11. How many times have you had a chance to travel abroad in one year?  
 None     One time     Two times     Three times  
 More than 3 times
12. Please identify your level of English proficiency  
 Very good     Good     Moderate     Not so good     Weak

13. Please identify your frequency of English language used in daily life.

Very often    Often    Occasionally    Hardly    None

## PART II. The Cultural Intelligence (CQ)

**Direction:** Read each statement and select the response that best describes your capabilities.

Select the answer that best describes you as you really are. Please read the items carefully, and circle the number in the box that best represent your answer.

1= Strongly disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I know the legal and economic systems of other cultures.	1	2	3	4	5
2	I know the rules (e.g., vocabulary, grammar) of other languages.	1	2	3	4	5
3	I know the cultural values and religious beliefs of other cultures.	1	2	3	4	5
4	I know the marriage systems of other cultures.	1	2	3	4	5
5	I know the arts and crafts of other cultures.	1	2	3	4	5
6	I know the rules for expressing nonverbal behaviors in other cultures.	1	2	3	4	5
7	I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.	1	2	3	4	5
8	I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.	1	2	3	4	5

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
9	I am conscious of the cultural knowledge I apply to cross-cultural interactions.	1	2	3	4	5
10	I check the accuracy of my cultural knowledge as I interact with people from different cultures.	1	2	3	4	5
11	I enjoy interacting with people from different cultures.	1	2	3	4	5
12	I am confident that I can socialize with locals in a culture that is unfamiliar to me.	1	2	3	4	5
13	I am sure I can deal with the stresses of adjusting to a culture that is new to me.	1	2	3	4	5
14	I enjoy living in cultures that are unfamiliar to me.	1	2	3	4	5
15	I am confident that I can get accustomed to the shopping conditions in a different culture.	1	2	3	4	5
16	I change my verbal behavior (e.g., accent, tone) when a cross-cultural interaction requires it.	1	2	3	4	5
17	I use pause and silence differently to suit different cross-cultural situations.	1	2	3	4	5
18	I vary the rate of my speaking when a cross-cultural situation requires it.	1	2	3	4	5
19	I change my nonverbal behavior when a cross-cultural situation requires it.	1	2	3	4	5
20	I alter my facial expressions when a cross-cultural interaction requires it.	1	2	3	4	5

### PART III. Communicative Adaptability (CA)

The following are statements about communication behaviors. Answer each item as it relates to your general style of communication (the type of communicator you are most often) in **the situation which using English in communicating**. Please read the items carefully, and circle the number in the box that best represent your answer.

1= Never true of me; 2= Rarely true of me; 3= Sometimes true of me; 4= Often true of me; 5= Strongly Agree

		Never true of me	Rarely true of me	Sometimes true of me	Often true of me	Strongly agree
1	I feel nervous while communicating in English	1	2	3	4	5
2	In most situations that communicating in English, I feel tense and constrained	1	2	3	4	5
3	When talking in English, my posture seems awkward and tense.	1	2	3	4	5
4	My voice sounds nervous when I talk to others in English.	1	2	3	4	5
5	I am relaxed when talking to others in English.	1	2	3	4	5
6	I try to make the other person feel good while communicating in English.	1	2	3	4	5
7	I try to make the other person feel important while communicating in English.	1	2	3	4	5



		Never true of me	Rarely true of me	Sometimes true of me	Often true of me	Strongly agree
8	I try to be warm when communicating with another in English.	1	2	3	4	5
9	While I'm talking in English, I think about how the other person feels.	1	2	3	4	5
10	I am verbally and nonverbally supportive of other people while communicating in English.	1	2	3	4	5
11	I like to be active in different social groups in which using English in communicating.	1	2	3	4	5
12	I enjoy socializing with various groups of people in which using English in communicating.	1	2	3	4	5
13	I enjoy meeting new people in which using English in communicating.	1	2	3	4	5
14	I find it easy to get along with new people in which using English in communicating.	1	2	3	4	5
15	I do not "mix" well at social functions in which using English in communicating.	1	2	3	4	5
16	I am aware of how intimate my disclosures are while communicating in English.	1	2	3	4	5
17	I am aware of how intimate the disclosures of others are while communicating in English	1	2	3	4	5
18	I disclose at the same level that others disclose to me while communicating in English.	1	2	3	4	5

		Never true of me	Rarely true of me	Sometimes true of me	Often true of me	Strongly agree
19	I know how appropriate my self-disclosures are while communicating in English	1	2	3	4	5
20	When I self-disclose I know what I am revealing while communicating in English.	1	2	3	4	5
21	When speaking in English, I have problems with grammar.	1	2	3	4	5
22	At times I don't use appropriate verb tense while communicating in English.	1	2	3	4	5
23	I sometimes use one word when I mean to use another while communicating in English.	1	2	3	4	5
24	I sometimes use word incorrectly while communicating in English.	1	2	3	4	5
25	I have difficulty pronouncing some word while communicating in English.	1	2	3	4	5
26	When I am anxious, I often make jokes while communicating in English.	1	2	3	4	5
27	I often make jokes when in tense situations while communicating in English.	1	2	3	4	5
28	When I embarrass myself I often make a joke about it while communicating in English.	1	2	3	4	5
29	When someone makes a negative comment about me I respond with a witty comeback while I am speaking in English.	1	2	3	4	5

		Never true of me	Rarely true of me	Sometimes true of me	Often true of me	Strongly agree
30	People think I am witty while I am speaking in English.	1	2	3	4	5

#### **PART IV. Intercultural Communication Apprehension (ICA)**

**Directions:** The 14 statements below are statements concerning your feeling about communicating with your foreign instructor in this classroom. Please indicate how much you agree with these statements by marking a number representing your response to each. Please read the items carefully, and circle the number in the box that best represent your answer.

1= Strongly disagree; 2= Disagree; 3= Neutral; 4= Agree; 5= Strongly Agree

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Generally, I am comfortable interacting with this foreign instructor	1	2	3	4	5
2	I am tense and nervous while interacting with this foreign instructor.	1	2	3	4	5
3	I like to get involved in group discussion which accompanied by this foreign instructor.	1	2	3	4	5

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4	Engaging in a group discussion which accompanied by this foreign instructor makes me nervous.	1	2	3	4	5
5	I am calm and relaxed when interacting with this foreign instructor.	1	2	3	4	5
6	While participating in a conversation with this foreign instructor, I get nervous.	1	2	3	4	5
7	I have no fear of speaking up in a conversation with this foreign instructor.	1	2	3	4	5
8	Ordinarily I am very tense and nervous in a conversation with this foreign instructor.	1	2	3	4	5
9	Ordinarily I am very calm and relaxed in conversations with this foreign instructor.	1	2	3	4	5
10	While conversing with this foreign instructor, I feel very relaxed.	1	2	3	4	5
11	I am afraid to speak up in conversations with this foreign instructor.	1	2	3	4	5
12	I face the prospect of interacting with this foreign instructor.	1	2	3	4	5
13	My thoughts become confused and jumbled when interacting with this foreign instructor.	1	2	3	4	5
14	Communicating with this foreign instructor makes me feel uncomfortable.	1	2	3	4	5

**Thank you very much**

## **BIOGRAPHY**

<b>NAME</b>	Pair Sajampun
<b>ACADEMIC BACKGROUND</b>	<p>Bachelor in Business Administration with Marketing concentration Mahidol University International College (MUIC), Thailand</p> <p>Master of Commerce in International Business and International Marketing University of Sydney, Australia</p>
<b>PRESENT POSITION</b>	Full time lecturer at Assumption University (Martin de Tours School of Management and Economics, Department of Marketing), Thailand
<b>COURSES TAUGHT</b>	<ol style="list-style-type: none"><li>1. Integrated Marketing Communication</li><li>2. Consumer Behavior</li><li>3. Marketing Management</li><li>4. Advertising and Creative Strategy</li></ol>
<b>PUBLICATION</b>	<p>Vikanda Pornsakulvanich, Nuchada Dumrongsiri, Pair Sajampun, Suppasit Sornsri, Tipa Sriyabhand, Chatkaew Nuntapanich, Chulamani Chantarawandi, Parichart Wongweeranonchai, and Smith Jiradilok (2012), “An Analysis of Personality Traits and Learning Styles as Predictors of Academic Performance”, <i>Assumption University Journal</i>, Vol. 32 No. 3, September- December.</p>