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List of abbreviations

AACSB	Association to Advance Colligate Schools of Business
ABDC	Australian Business Deans Council
AJG	Association of Business Schools' Academic Journal Guide
AMLE	<i>Academy of Management Learning & Education</i>
ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
CQ	Cultural Intelligence
CQS	Cultural Intelligence Scale
EFMD	European Foundation for Management Development
EQUIS	European Quality Improvement System
ERASMUS	European Region Action Scheme for the Mobility of University Students
GLIM	Generalized Linear Models
IB	International Business
IHRM	International Human Resource Management
K-S	Kolmogorov-Smirnov
MNC	Multinational Corporation
OECD	Organization for Economic Co-operation and Development
PIM	Partnership in International Management
PIS	Participant Information Sheet
SFCQ	Short Form measure of Cultural Intelligence
SLT	Social Learning Theory
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom
US	United States
VIF	Variance Inflation Factor

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Chapter 2, Sections 2.2 through 2.2.8

Cultural intelligence: A review and new research avenues

Submitted to the International Journal of Management Reviews (A-ranked)

Currently under final revision after a third review round, which recommended minor revisions.

Nature of contribution
by PhD candidate

Identified all articles that comprised the review;
 Systematically organized the reviewed literature in various ways;
 Developed the critical detailed examination of the reviewed literature;
 Developed all exhibits in the paper;
 Drafted and edited multiple versions of the paper;
 Drafted the initial versions of the responses to the Editor and Reviewers in the course of the second resubmission after having learned how to do that in the first revision round.

Extent of contribution
by PhD candidate (%)

70%


CO-AUTHORS

Name	Nature of Contribution
Prof Snezhina Michailova	Selected the target journal; Positioned the paper within existing literature and framed the key contributions; Drafted the responses to the Editor and Reviewers in the first resubmission and edited the responses in the second resubmission; Took the lead on communications with the target journal.

Certification by Co-Authors

The undersigned hereby certify that:

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Chapter 3, Sections 3.1 through 3.2.6

International experience and cultural intelligence development: A social learning theory framework

Currently under review at the International Journal of Cross Cultural Management.

Nature of contribution by PhD candidate	Completed all of the work related to the identification of the literature that was reviewed; Systematically organized and critically examined the reviewed literature; Developed the theoretical framework and propositions; Drafted and edited multiple versions of the paper; Presented the paper at an academic conference and worked with the feedback received there.
Extent of contribution by PhD candidate (%)	75%

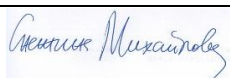
CO-AUTHORS

Name	Nature of Contribution
Prof Snejina Michailova	Selected the target journal; Positioned the paper in the appropriate scholarly conversation; Framed the key contributions; Edited the paper; Took the lead on communications with the Editors.

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- ❖ that the candidate wrote all or the majority of the text.

Name	Signature	Date
Prof Snejina Michailova		26.01.2016

Chapter 1. INTRODUCTION

1.1 Background and context

The globalization of the world's business markets has significantly increased the amount of cross-cultural interactions between business professionals. Multinational Corporations (MNCs), when expanding their international presence, frequently utilize expatriates in foreign locations to coordinate between headquarters and subsidiaries (Hung-Wen, 2007), and transfer knowledge to subsidiaries (Minbaeva & Michailova, 2004). Although international assignments are frequently considered unsuccessful (Cole, 2011; Harvey & Moeller, 2009; Stroh, Gregersen & Black, 2000), recent surveys by Ernst and Young (2013), and Brookfield (2014) indicate that the number of international assignments is increasing.

Expatriates' success within a foreign culture is greatly dependent on their ability to overcome the challenges of working and living in new cultural environments. A common reason for expatriates' failure while on an international assignment is their inability to adjust to the culture of their new host-country (Harvey & Moeller, 2009; Harvey & Novicevic, 2001). Having cultural competence, however, assists them with adapting to the new culture and has been demonstrated to facilitate expatriates' success when in foreign environments (Chen, Kirkman, Kim, Farh & Tangirala, 2010; Lee, 2010; Lee & Sukoco, 2010; Malek & Budhwar, 2013; Rose, Ramalu, Uli & Kumar, 2010; Templer, Tay & Chandrasekar, 2006). Over 200 terms and characteristics have been conceptualized, to varying degrees, to describe cultural competence (Johnson, Lenartowicz & Apud, 2006; Spitzberg & Changnon, 2009). One of them, Cultural Intelligence (CQ), has been widely adopted within the Management and International Business (IB) disciplines as a measurable construct that allows for the identification of cultural competence (Chen et al., 2010; Eisenberg et al., 2013; Johnson et al., 2006).

CQ was originally defined as the capabilities of an individual to effectively adapt to culturally diverse settings and across multiple cultural contexts (Earley & Ang, 2003). Thomas and colleagues (2008) re-conceptualized CQ and defined it as "a system of interacting knowledge and skills, linked by cultural metacognition that allows people to adapt to, select, and shape the cultural aspects of their environment" (p. 126). Common to both conceptualizations is the ability of individuals to use cognitive, metacognitive and behavioral capabilities to work and interact constructively with members of other cultures. CQ has also been demonstrated to have a positive impact on expatriate adjustment and adaptation (Lin, Chen & Song, 2012; Malek & Budhwar, 2013; Templer, et al., 2006). However, "firms need to understand what could lead

an employee to have a higher CQ, which in turn should lead to more effectiveness while abroad” (Crowne, 2008, p. 393).

In the past 20 years, business schools worldwide have taken steps to internationalize their curriculum in order to meet demands for graduates with global competences (Walker, 2009; Witte, 2010). This has largely stemmed from globalization; but, as opposed to standardizing the actions of multiple countries like globalization, internationalization is the development of cultural, educational, social and business relationships between cultures or groups of cultures (McCabe, 2001). Through these relationships, it creates opportunities for members of different cultures and citizens of different countries to become educated together, live together, and work together for the greater good. Due to societies’ dependence on highly educated individuals for economic growth and expansion, institutions of higher education play an important role in globalization, as they use internationalization activities to develop, educate, shape and supply these individuals. One particular internationalization effort that has received wide support from the education discipline, governments (Vande Berg, 2007), institutions of higher education (Tarrant, 2010), and students is study abroad.

Support for study abroad is evidenced by the extraordinary and continuous increases in international education mobility. In 2013, the Organization for Economic Co-operation and Development (OECD) reported that globally, from 1975 to 2011, participation in education mobility had increased from 0.8 million to 4.3 million students, an increase of more than 400%. Furthermore, 20% of study abroad participants in the 2012/13 academic year were from the business and management discipline, making it the third largest field of study of academic sojourners (Institute of International Education, 2013).

Although study abroad is marketed to business students as an important experience for the attainment of future employment (Gardner, Steglitz, & Gross, 2008; 2009), research on the value of study abroad during the employee recruitment processes of MNCs have provided mixed results. Van Hoof (1999) surveyed recruiters from United States (US) based firms to examine the level of importance they place on study abroad. Less than 15% of the recruiters considered study abroad as important or very important, and over 40% indicated that whether a student studied abroad or not, was not important to them or their company. When asked if they would favor a student who studied abroad over a student with no international experience, all other things being equal, 37% would not and 47% were indifferent (Van Hoof, 1999). Gardner and colleagues (2008) also surveyed US MNCs and reported that they did not place any value on study abroad when evaluating candidates during the hiring process. Additionally, recruiters and managers did not consider study abroad when evaluating resumes or during the

initial interviews with potential employees, despite stating that they were looking for experiences that added value to their companies (Gardner et al., 2009). The authors concluded that the outcomes of study abroad participation do not resonate with recruiters and managers. Contrary to these findings, Crossman and Clarke (2010) reported that Australian employers do see a connection between employability and international experience. Specifically, they found that recruiters and managers felt previous international experience distinguished candidates during the recruitment process and impacted the interviewee selection process. These limited and contradictory findings highlight the need to continue to examine the relationships between activities that are supported by institutions of higher education and how they translate to the world of work (Teichler, 2007).

1.2 Research motivation

1.2.1 Expatriate failure and associated costs

Expatriate failure can take many forms, but must be damaging to the individual or the MNC (Harzing & Christensen, 2004). Failure can include the early return of an expatriate (Tung, 1981), unsatisfactory performance (Harzing & Christensen, 2004), damaged business relationships for future ventures (Zeira & Banai, 1985), and the loss of qualified managers upon return (Hung-Wen, 2007). Failure can affect the expatriate (Hung-Wen, 2007), the members of their family (Bauer & Taylor, 2001; Luring & Selmer, 2010), the MNC (Hung-Wen, 2007), and the business environment where the expatriate was located (Harzing, 1995; Zeira & Banai, 1985). While it has been suggested that expatriate failure rates have been overestimated due to referencing errors and misquotations within IB literature (Harzing, 1995 & 2002), the rates can cover a vast range depending on how the respondents of many investigations interpret the meaning of failure. For example, in the 2014 Global Relocation Trends Survey Report by Brookfield Global Relocation Services, respondents reported that only 5% of international assignments ended in failure. However, in the same report respondents indicated that 7% of international assignments were considered incomplete due to the expatriate returning early, 21% of expatriates left the company during their international assignment, and 29% left within one year of returning from their international assignment.

Regardless of the actual rate of failure, the costs associated with expatriate failure are quite considerable. They can include financial losses (Harvey & Moeller, 2009), lost business opportunities (Wederspahn, 1992), the loss of qualified employees (Tung, 1987), damaged working environments and reductions in productivity (Harzing, 1995; Wederspahn, 1992). Some of these costs are direct and have been estimated to range from US\$300,000 to US\$1.7

million per international assignment (Mercer, 2014), thereby causing firms to lose billions annually. Other indirect costs are also incurred and often surpass the direct costs, but are more difficult to quantify as they may be unrealized at the time of the failure (Dowling, Festing & Engle, 2008; Wederspahn, 1992).

There are multiple reasons why MNCs employ expatriates, including a perceived or actual lack of availability of qualified individuals with the necessary management and technical skills in the host-country; for control or co-ordination purposes within the subsidiary; to transfer knowledge between the headquarters and subsidiary; to establish trust when acquiring foreign businesses; to protect intellectual property or operations; to serve as representatives of the headquarters; and for management or organizational development (Shen & Edwards, 2004). Even though the costs associated with sending individuals to subsidiaries continue to increase, expatriation, in some form, is also expected to continue increasing (Collings, Scullion, & Morley, 2007; Tahvanainen, Welch & Worm, 2005). In the 2014 Brookfield report, for example, 47% of the respondents believed that international assignments increased between 2013 and 2014, and 40% expected further increases in 2014. The majority of the anticipated increases are predicted to be in the form of alternative international assignments, which include short-term, international commuter or business traveler, and virtual assignments (Collings et al., 2007; Mayerhofer, Hartmann, Michelitsch-Riedl & Kollinger, 2004). These alternative forms of an international assignment allow expatriates to play an active role in the business dealings of subsidiaries, while no longer needing them to relocate for extended periods of time. Although this type of international assignment may help to reduce direct costs, understanding more about how cultural competency is developed and how to identify individuals with the cultural skills and knowledge necessary to adapt in foreign environments, will certainly reduce failure, and thereby costs. Utilizing the construct of CQ, learning more about how it can be developed, and determining if it results from international experience is one specific and promising way forward.

1.2.2 International experience, CQ and expatriate adjustment

In addition to the problem of expatriate failure and its associated costs, another motivation for my research is the anticipated relationship between international experience, CQ and expatriate success outcomes. Drawing from the expatriate literature, Shaffer and Miller (2008) proposed a conceptual model of expatriate success, and suggested that CQ plays an important role on the relationship between established predictors and success. They included multiple personal, job, cultural and anticipatory factors as independent variables and developed several propositions of their direct and indirect effects on adjustment, performance, retention and

career success, the dependent variables. The authors suggested that, in addition to the direct influence of CQ on expatriate success, CQ also moderates the relationships between the established predictors and expatriate success. Furthermore, they argued that CQ is a mediator between the predictors previous international experience and language ability, and the outcome expatriate success, in particular, because “CQ is a conduit through which these personal anticipatory factors influence all forms of expatriate effectiveness” (p. 118).

In Shaffer and Miller’s (2008) model, expatriate success was operationalized to include adjustment, performance, retention and career success. Examinations of the direct effects of CQ on many of these indicators of expatriate success have demonstrated that CQ has a positive and significant impact on them (Ang et al., 2007; Chen et al., 2010; Collings et al., 2007; Lee, 2010; Lee & Sukoco, 2010; Rose et al., 2010; Ward, Wilson & Fischer, 2011). Shaffer and Miller (2008) also specifically argued that international experience is linked to expatriate success through CQ, because socialization and exposure to other cultures (international experience) leads to the attainment of attributional knowledge or increased knowledge of contextually appropriate behavior (Bird, Heinbuch & Dunbar, 1993). This type of tacit knowledge (Johnson et al., 2006) is fostered through experience with and within other cultures, and thereby develops and can be measured as CQ (Shaffer & Miller, 2008).

The expectation that international experience leads to the development of attributional or tacit knowledge about other cultures has been examined within several studies by measuring the direct effect of previous international experience on expatriate outcomes, particularly adjustment. Church (1982) contended that it is commonly assumed that an individual with international experience will use this experience to facilitate their adjustment, however, it could also have the opposite effect. For example, international experience could inhibit adjustment by reinforcing previously held stereotypes or cause individuals to build defenses against other cultures (Church, 1982). This may be one explanation as to why some studies have found no relationship between previous international experience and adjustment (Black & Gregersen, 1991) or found the relationship to be difficult to explain (Black, 1988). For example, Black and colleagues (1991) proposed that there is a relationship between international experience and adjustment, but they also included several other influencing factors within their conceptual model including individual and organization anticipatory adjustment factors and individual, job, organization socialization and culture, and nonwork factors, making the exact relationship unclear.

Some scholars have recommended more detailed examinations of international experience in order to gain a better understanding of how it impacts adjustment. In this line, Selmer (2002)

demonstrated that culturally unrelated previous international experiences have little impact on all types of adjustment, but culturally related previous international experiences, particularly those in the same foreign location, expedite some aspects of sociocultural adjustment. Additionally, Takeuchi, Teslek, Yun, and Lepak (2005) pointed out that international experience is a multidimensional construct, and that cultural-specificity, one of its dimensions, may lead to better understanding about how previous international experience impacts adjustment. These authors concluded that previous international experience, even culture-specific experience, ultimately acts as a moderator and not as an antecedent between the current assignment tenure and work adjustment. Finally, Bhaskar-Shrinivas, Harrison, Shaffer, and Luk (2005) conducted a meta-analysis and reported that overall, previous international experience has a positive and significant relationship with adjustment, however, the strength of the relationship was too weak to conclude that international experience is a predictor of adjustment.

Although the direct effects between previous international experience and adjustment have been investigated, there are remaining and important questions about how exactly these two constructs are related. In addition, it remains unclear what it is that actually results from international experience that can facilitate adjustment. Is it, as suggested by Shaffer and Miller (2008), CQ? According to their suggestion, the outcomes of an international experience include CQ, and it is CQ that assists an individual to adjust. If this is the case, it implies that it is not simply having had a previous international experience that assists an individual to adjust, but that the experience resulted in the development of CQ, which then leads to adjustment. As discussed, it has been demonstrated that CQ has a positive impact on adjustment (Lin et al., 2012; Malek & Budhwar, 2013; Templer et al., 2006), however, by what means and whether CQ is an outcome of international experience seem to be the missing pieces of the puzzle.

CQ is a set of malleable capabilities that are susceptible to development and it has been theorized to result from social interactions with culturally different others (Thomas et al., 2008) and exposure to other cultures (Earley & Ang, 2003). To date, little research has focused on what type of exposure is particularly relevant to the development of CQ, and under what conditions it is achieved. Previous international experience has been conceptualized to consist of work and non-work experiences (Takeuchi et al., 2005), and the number or length of some non-work international experiences have been shown to positively impact CQ (Moon, Choi, & Jung, 2012; Tarique & Takeuchi, 2008). Moon et al. (2012) have provided some empirical evidence towards validating Shaffer and Miller's (2008) model that linked previous

international experience, CQ and expatriate success. They tested a model that included CQ as a mediator of the relationship between international experience and cross-cultural adjustment. Their results demonstrated that non-work previous international experience and general adjustment are mediated by one facet, motivational CQ, and that the relationship between non-work previous international experience and work adjustment is mediated by three facets, cognitive, motivational and behavioral CQ. However, they failed to confirm that overall CQ fully mediates the relationship between previous international experience and cross-cultural adjustment.

Study abroad has been mentioned as a specific type of non-work international experience (Tarique & Takeuchi, 2008), but it has only recently been included in studies examining its link to CQ (Eisenberg et al., 2013; Engle & Crowne, 2014; Varela & Gatlin-Watts, 2014; Wood & St. Peters, 2014). This is problematic because study abroad has gained support and students are encouraged to participate in it under the assumption that it leads to skills that can be directly translated to the workplace. In addition, for many participants, study abroad is their first significant exposure to another culture and the first time that they live outside their home-country, providing a particularly unique opportunity to examine the outcomes of participation. Finally, the structured nature of study abroad programs also allow for more detailed examinations of the experience, to better understand the things that individuals do during an international experience, which could lead to the development of CQ. Thus, the utility and functionality of study abroad as a type of international experience motivates my specific interest in examining the relationship between study abroad and CQ.

1.2.3 Personal motivation

In addition to the research-based motivations presented above, there is a personal reason, related to my professional experience and interests that also motivates me to examine the relationship between study abroad and CQ. I have previously worked for more than 10 years as an academic advisor within different universities in Germany and the US, and more specifically, as a coordinator for study abroad programs within business schools. During that time I assisted students both coming and going to a host-country to complete a study abroad. Many of these students came to me after their experience to discuss the differences they saw in themselves and the impact that the experience had on them. In addition, for these students, their study abroad was the catalyst that led them to start looking for career opportunities where they would specifically be able to take international assignments (making them future expatriates). However, several of them also came to me for advice about their struggles with respect to communicating to potential future employers what it is exactly that they gained

from their study abroad, which could be used and applied within a business setting. I searched for information and research to help these students, and surprisingly found very little literature about this particular topic.

I was not able to accurately articulate what these students gained from studying abroad until I came across CQ. Many of the motivations identified by the authors who developed the construct of CQ (Earley & Ang, 2003; Thomas et al., 2008) were similar to the questions I needed to answer. Why are some people more successful when interacting with individuals from other cultures? Why do so many people struggle or have negative experiences during cross-cultural interactions? What is it that allows some people to be effective during cross-cultural interactions when others fail? These questions have been answered with the development of the CQ construct. From a practitioner's perspective, now that I know what it is that is beneficial to individuals and future expatriates – I need to know what experiences can influence the development of CQ, and more specifically if study abroad is one of those experiences.

I am passionate about this topic because of my professional experience within international higher education, and I know there is a need for students to be able to connect participation in study abroad to their future career ambitions. Furthermore, my examination of the relationship between study abroad and CQ will be a study that links the international education and IB disciplines, which will provide important insights that can be used to assist future students. The results will also be beneficial to my future career aspirations. My interest remains in the coordinating, planning and designing of study abroad programs and exchange partnerships within university business schools. Gaining a deeper understanding of how the design of study abroad programs impact the development of CQ can provide important guidance for selecting what programs should be available to students, for evaluating the programs of potential partner universities, and when designing programs with faculty and for students. Lastly, based on the results of my research, I will also know the next steps to continue investigating CQ development, thereby advancing my personal research interest.

1.3 Research problem, questions and aims

Expatriates and predictors of their success are important topics at the forefront of IB, both academically and in practice. Although MNCs still send large numbers of expatriates to developed countries, there has also been increases in IB opportunities in developing and undeveloped countries, where it is predicted that seven-eighths of the population will be located by 2025 (Webb & Wright, 1996). Expansion into these new markets will add greater

economic and cultural distance between expatriates and their home-culture, potentially leading to higher failure rates (Harvey & Moeller, 2009; Tung, 1981). As a result, being able to identify future expatriates with the skills to interact constructively with members of other cultures is a challenge faced by International Human Resource Management (IHRM).

CQ is defined as the ability to understand culture and shape one's behavior and thinking to be more appropriate when interacting with members of other cultures (Thomas & Inkson, 2004). It has been demonstrated to impact many indicators of intercultural effectiveness (Ang et al., 2007; Thomas et al., 2015) and has been found to predict expatriate success. Given these established outcomes of CQ, it is important for scholars to focus on *how* CQ can be developed (Crowne, 2008), and in particular, identify whether it can be fostered before an individual enters the workplace, similar to many other professional skills.

Identifying what influences the development of CQ is relevant to both the expatriation and CQ literatures. Recently, Harvey and Moeller (2009) identified the ability of IHRM to develop flexible/adaptive competencies in their global workforce as a key issue that human resource managers will face over the next decade. Experienced expatriates are quickly reaching the age of retirement, escalating the concern over the scarce supply of individuals with international experience to take their place (Meyskens, Von Glinow, Werther & Clarke, 2009). Additionally, Brookfield (2014) reported that 73% of the respondents to the Global Relocation Trends Survey indicated that less than 11% of their expatriate population had previous international assignment experience. Thus, MNCs need to be able to identify and recruit future expatriates who have already developed the necessary skills for successful interactions while abroad, namely CQ, before they join the organization.

One way in which CQ is believed to develop is through experience in culturally diverse environments (Earley & Ang, 2003; Thomas & Inkson, 2004). However, studies that have examined the link between international experience and CQ have provided inconsistent findings, and it has been suggested that “the international experience hypothesis needs theoretical refinement to unravel inconsistent results” (Ang, Van Dyne & Tan, 2011, p. 591). Furthermore, according to Ng, Van Dyne, and Ang (2012):

Although the quantity of international experience is important for CQ development, there is little research on the quality of the experience. This is an important gap because quality of experience could be as important, if not more critical, than quantity.
(p. 39)

Based on these research problems and gaps, the overall research question I ask is:

How does international experience impact CQ?

In order to answer this question, I ask two sub-questions for empirical investigation:

1. Do participants' mean CQ differ between the levels of immersion of the study abroad program components?
2. If participants' mean CQ significantly differs between the levels of immersion of a study abroad program component, how do they differ between the levels of immersion?

The overall research question I ask relates to theoretical and empirical issues about the relationship between international experience and CQ in existing literature. While I arrived at my main research question through my literature review (presented in Chapter 2), my sub-questions resulted from the identification of a need to investigate international experience in greater detail (presented in Chapter 3). Based on this need, I treat study abroad as a type of non-work international experience, which allows me to unpack it and conduct a more detailed examination of its relationship with CQ (discussed in Chapter 4). Sub-question one relates to whether there are differences in participants' mean CQ within the study abroad program components, while sub-question two focuses on those program components where differences exist and analyzes how participants' mean CQ differs based on their level of immersion. In addition, sub-questions one and two are linked with each other, such that, I must answer the former in order to be able to answer the latter. Finally, I must first empirically answer sub-questions one and two to be able to determine how international experience impacts CQ, my overall research question. Figure 1.1 illustrates the links between all the research questions that I ask.

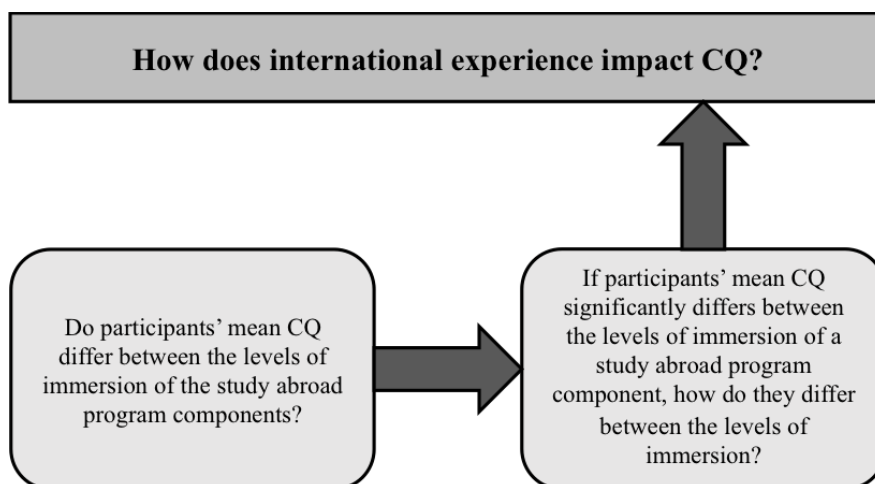


Figure 1.1 *Linkages between the overall and research sub-questions investigated*

My thesis responds to specific criticisms of previous research on the link between international experience and CQ, and contributes to the scholarly conversation on CQ in three ways:

- First, by applying theory to understand how international experience may impact CQ.
- Second, by unpacking study abroad to provide insights about how the quality of this specific type of international experience may impact CQ.
- Third, by empirically testing the relationship between study abroad and CQ.

My aim is to contribute to the scholarly conversation on the role of international experience in the development of CQ. I examine international experience in greater detail than previous research by treating study abroad as a specific type of international experience and then gathering data about how its different program components impact respondents' CQ. This study is unique because I use the level of immersion of the study abroad program components, which are suggested as objective measures that are useful for investigating these programs in a more detailed manner (Engle & Engle, 2003 & 2004). In addition, I borrow a learning theory from the social psychology discipline as a lens to explain the anticipated relationships. Lastly, I use Thomas et al.'s (2008) conceptualizations of CQ and their newly validated measure (Thomas et al., 2015) that, to my knowledge, has not been utilized within empirical CQ research. By examining the variables in this way and measuring CQ with a new tool, I aim to provide important insights about how the quality of international experience impacts CQ. This allows for a well-defined contribution to the current research conversation on CQ.

1.4 Intended research contributions

My thesis intends to advance scholarly research on CQ by 1) focusing on CQ as an outcome variable; 2) providing a comprehensive theoretical framework to explain the relationship between international experience and CQ; 3) examining international experience in-detail by measuring the level of immersion of study abroad program components; and 4) empirically testing the relationship between the program components and CQ. These advances of knowledge will be accomplished first through my literature review where I validate the need for a better understanding about what leads to CQ, given its demonstrated impact on expatriate outcomes. Then, I borrow Social Learning Theory (SLT) (Bandura, 1977) from the social psychology discipline, apply it to the link between international experience and CQ, and develop a theoretical framework to explain the relationship between the constructs. Next, I argue the utility of study abroad as a unique type of international experience, and use a classification system (Engle & Engle, 2003) from the study abroad literature to unpack study abroad to examine how the levels of immersion of study abroad program components

influence CQ. Finally, I test the relationship between the levels of immersion of the study abroad program components and CQ, and discuss the results.

There are also notable potential practical contributions as a result of my research. First, by knowing how study abroad impacts CQ, I can recommend this type of international experience to IHRM professionals for the recruitment of future expatriates and when making international assignment selection decisions. Previous study abroad, particularly in relation to the specific program components I investigate, could be an easy to identify expatriate selection criterion for use within MNCs. This information will add to what is already known about how expatriates should be selected and allow for the addition of study abroad as an expatriate selection criterion. Second, to international higher education, specifically the IB education field, clarifying how CQ develops based on the study abroad program components I investigate will provide a basis for business schools to increase their efforts to engage their students in specific study abroad programs. While there are many ways that this could be accomplished, until business schools and students know what program components are likely to have the greatest impact, it will remain difficult to argue the need for or recommend study abroad. Last, by identifying the specific program components that influence CQ development, I can recommend what components business schools should include when planning and designing study abroad programs, as they are beneficial to both students and future employees.

1.5 Thesis structure

The thesis is comprised of seven chapters and employs a hybrid structure by including some co-authored papers. In Chapter 1, I introduced the research topic by discussing the background and context, motivations, problem statement, research questions and aims, and the intended contributions of the thesis. Chapter 2 critically reviews the CQ literature by analyzing it across a few selected dimensions, identifying patterns and gaps, and suggesting avenues for future research. Section 2.2 (including all subsections) of Chapter 2 consists of a co-authored paper that is currently under final revision after the third review round with the *International Journal of Management Reviews*, which recommended minor revisions. Chapter 3 draws from an analysis of previous examinations on the link between international experience and CQ, addresses identified weaknesses within previous research by arguing the appropriateness of SLT, and utilizes SLT to develop a theoretical framework with a set of testable propositions. Similar to the previous chapter, section 3.2 (including all subsections) of Chapter 3 consists of a co-authored paper that is currently in the first review round at the *International Journal of Cross Cultural Management*. In Chapter 4, I discuss study abroad and the development of the hypotheses by presenting the history of study abroad, addressing definitional issues,

introducing the study abroad program components I use within the conceptual model, and lastly, explaining the development of the study hypotheses. In Chapter 5, I present the research methodology, including research design, sampling method, instrumentation, data collection procedures, and data analysis techniques. In Chapter 6, I conduct the data analysis, test the hypotheses, and perform the post hoc examinations. Finally, in Chapter 7, I conclude the thesis by providing a thorough discussion of the results in relation to the research questions, and then detail the contributions and advancements of research, practical implications, limitations of the study, and recommendations for future research.

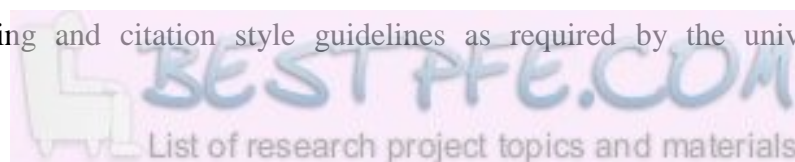
Chapter 2. A REVIEW OF THE CQ LITERATURE

2.1 Introduction

A literature review is the starting point for any piece of scholarly work, as significant research cannot be performed without first gaining an in-depth understanding of the existing literature (Boote & Beile, 2005). My thesis contributes to the scholarly conversation on CQ, which is why a review of the CQ literature is a natural starting point. I read, reviewed and considered a substantial amount of literature to not only understand how the CQ construct has developed, but to also identify and uncover gaps within the literature. In my review, I synthesize prior research to critically analyze the methods used in order to identify new perspectives and future research avenues (Hart, 1999). The processes used to synthesize and learn from previous research were primarily undertaken to identify and understand how I might make a contribution. My systematic review of the literature includes the identification, selection and critical analysis of previous studies in order to find ways to enhance the theoretical and methodological sophistication of my study (Boote & Beile, 2005).

In this chapter, I review the extant literature on CQ to determine what has been learned about the construct since its introduction over a decade ago. Then I systematically and critically analyze the theoretical developments within the literature, and investigate links between CQ and related variables. I develop a model of the broader CQ literature and discuss how CQ has been utilized as an independent, dependent, mediating, and moderating variable within scholarly work. Finally, based on the major findings of the review, I provide specific recommendations for future research.

The following is a co-authored work titled 'CQ: A Review and New Research Avenues' that was submitted to the *International Journal of Management Reviews*. At the time of writing this thesis, the paper was under final revision after a third review round, which recommended 'minor revisions'. The paper was originally submitted to the journal on 13 November 2014, and following the first review round an invitation to resubmit after 'major revisions' was received on 24 January 2015. The paper was then resubmitted for a second review round on 23 March 2015, following which, on 18 May 2015 a second invitation to resubmit after 'major revisions' was received. The paper was resubmitted again on 10 September 2015, and following the third review round an invitation to resubmit after 'minor revisions' was received on 22 December 2015. Some portions of the following paper have been adjusted in order to keep within the formatting and citation style guidelines as required by the university.



Additionally, appendices 1 and 2, referred to within the paper, are provided in this chapter under sections 2.2.7 and 2.2.8, respectively.

2.2 CQ: A review and new research avenues

CQ, an individual's capability to function and manage effectively in culturally diverse situations and settings, has become the focus of a vibrant scholarly conversation and a flourishing area of multidisciplinary research. Since the introduction of the concept in 2002, substantial research has been conducted concerning its definition, the validation of its measurement, and the examination of its development and predictive capabilities. The present paper reviews 63 conceptual and empirical articles published on CQ from 2002 to 2014 in management and international business journals as well as in education and psychology. We systematically organize the knowledge that has so far been accumulated on CQ, analyze the existing studies along a few selected dimensions, identify patterns, achievements and gaps within the literature, and suggest promising avenues for future research.

2.2.1 Introduction

Identifying individuals with the skills and abilities to interact effectively with people from diverse cultural backgrounds continues to occupy the attention of researchers and practitioners alike. Exactly which characteristics and competencies are necessary in an ever more diverse business environment, and how to identify people who have them, are relevant questions. Spitzberg and Changnon (2009) listed over 200 characteristics that have been used to refer to what these individuals possess, but a lack of construct validity has continued to plague this area of research, with some scholars calling for research on these skills to be “abandoned altogether” (Van de Vijver & Leung, 2009, p. 405).

A specific concept, CQ (referred to as CQ because it is conceptualized as a facet of intelligence), was introduced in an article by Earley (2002) and in Earley and Ang's (2003) book *Cultural Intelligence: Individual Interactions across Cultures*. CQ is defined as “a person's capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural context” (Earley & Ang, 2003, p. 9). Individuals with high CQ are culturally competent, having a repertoire of cognitive, behavioral, and motivational abilities to work effectively with members of different cultures and to adapt to foreign environments. A person who is able to generate new interpretations and behavior in a different culture where their learned cues and behaviors do not fit, has high CQ. People with high CQ expect that misunderstandings will happen in other cultures and as a result they delay judgment of any situation until they accomplish understanding (Brislin Worthley, & MacNab,

2006).

The scholarly conversation on CQ has become a flourishing area of multidisciplinary research. CQ appeals to a large audience who believe that being comfortable in multicultural environments requires more than just cognitive intelligence. Since the introduction of the concept and the establishment of predictive validity of the Cultural Intelligence Scale (CQS) (Ang et al., 2007), empirical research on CQ has proliferated in multiple disciplines, including anthropology, business and management, education, nursing, political science, psychology, and sociology. Many studies have focused on determining the relationship between CQ and correlates, predictors, and consequences that are important especially in IB, and there has been particular interest in expatriates' CQ and its effects on adjustment, performance and general effectiveness during international assignments. More recently, researchers have considered CQ as a dependent variable to identify its antecedents, with a particular interest in activities that lead to its development.

In this paper we systematically organize the insights gained about CQ over a 12 year period since the introduction of the concept, and identify avenues for future research. Our review differs from previous ones (Ang et al., 2011; Ng et al., 2012; Leung, Ang, & Tan, 2014) in a few important ways. First, we include in our analysis articles on CQ published in several disciplines - IB, Management, Education and Psychology. While our review is targeted primarily at IB and Management audiences, we acknowledge that they have often relied on CQ research embedded in Education and Psychology. It would therefore be unjustifiable to exclude research conducted in these two disciplines. Second, different from existing reviews, we discuss not only the original conceptualization of CQ (Earley, 2002; Earley & Ang, 2003) that has dominated the literature so far, but also the conceptualization by Thomas et al. (2008). We identify the similarities and analyze the main differences between these two conceptualizations, and bring clarity to a space that, despite criticisms, has been limited by its reliance on one conceptualization (Thomas, 2010; Blasco, Feldt, & Jakobsen, 2012). Third, while previous reviews have focused only on antecedents to and outcomes of CQ (Ang et al., 2011; Ng et al., 2012) or exclusively on outcomes of CQ (Leung et al., 2014), we also review articles that treat CQ as a mediator or moderator. This is an important addition because the scholarly conversation on CQ can be enriched by insights that stem from research analyses and models that extend beyond direct effects, which are often the focus of research on CQ. Finally, we offer the most recent and updated review of the CQ literature as we analyze articles published through 2014.

Our review is structured in three sections. First, we describe the processes we adopted to

identify and select articles for our review, summarize where CQ has been published, and depict the temporal developments in the existing literature. In section two, we examine this literature in detail by graphically presenting and discussing a classification of existing research, and analyzing the conceptual and empirical research on CQ. Finally, we discuss the main findings of the review and outline avenues for future research that hold promise for advancing the vibrant scholarly conversation on CQ.

2.2.2 The review process

With the aim of presenting a comprehensive yet focused review of the CQ literature, we confine the scope of our search as follows. First, we exclude books and book chapters, and only review studies published in ranked peer-reviewed academic journals. Although these rankings are inherently subjective and are continuously being debated and criticized, they provide a set of criteria that authors use for selecting studies to review. Such criteria are not readily available for books and book chapters. Second, while we acknowledge that CQ has been a topic of consideration in multiple streams of literature, here we only review publications where authors refer to organizations' international operations and/or to international assignments and expatriates. We justify this by noting that despite international assignments often being unsuccessful (Stroh et al., 2000; Johnson et al., 2006; Harvey & Moeller 2009; Cole, 2011), their numbers are increasing and this growth is expected to continue (Ernst and Young, 2013; Brookfield, 2014). In addition, when CQ was introduced, it was seen, due to the extensive cultural interactions experienced by expatriates, as a set of skills to aid them (Earley & Ang, 2003). Thus, we exclude articles focusing on topics such as domestic leadership, virtual teams, multicultural teams, marketing, sales, knowledge sharing/transfer, negotiations and trust, and on organizations' domestic employee diversification.

We selected the articles included in our review through extensive systematic electronic searches and the use of reference lists of published studies. Following recommendations by Webster and Watson (2002) who suggest beginning by gathering articles from top-tier journals before expanding to database searches, we initially focused on top-tier IB journals ranked by DuBois and Reeb (2000). We then added top-tier Management journals as ranked by Gomez-Mejia and Balkin (1992), Tahai and Meyer (1999), Werner (2002), and Podsakoff et al. (2005). This resulted in an initial search list of 42 journals. Within each journal we conducted electronic searches for "cultural intelligence" within the keywords, abstract or full-text in the period 2002-2014. We then examined each returned article individually to determine its relevance to our search, and retained all appropriate articles.

In order to avoid restricting our ability to identify patterns, achievements, and potential gaps in the literature, to draw conclusions, and to make well-grounded recommendations for future research, we opted for an inclusive approach that enables scholars to introduce insights deriving from disciplines outside of the core ones (Jones & Gatrell, 2014). For this round of the search, we began by reviewing the reference lists of the articles identified during the first search step. As a next step, we searched not only the business, but also the main psychology and education databases (EBSCO host, Proquest, PsycINFO, and Ovid). Such an interdisciplinary approach “opens up new possibilities for creative and imaginative research within relevant fields” (Jones & Gatrell, 2014, p. 252). By this stage we had identified and reviewed over 150 articles. We only retained those in which authors framed their intended contribution as being to the study of international assignments and expatriation, and papers published in journals that appear on the list of the Association of Business Schools’ Academic Journal Guide 2015 (AJG) and/or those ranked as A*, A, B or C in the list published by the Australian Business Deans Council (ABDC) (2013). We included C-ranked journals as per ABDC only if they also appear in the AJG ranking. The application of these criteria resulted in 63 selected articles, which we list in Appendices 1 and 2 (see sections 2.2.7 and 2.2.8). Further checks confirmed that this list was sufficiently exhaustive and up-to-date to permit a comprehensive and systematic review. Table 2.1 lists the journals where the 63 articles appear, the journal rankings, and the number of publications on CQ.

Table 2.1 *Distribution of reviewed publications across journals, rank-ordered by decreasing number of publications.*

Journal	AJG	ABDC	Number of publications
<i>Academy of Management Learning & Education</i>	4	A*	10
<i>Group and Organization Management</i>	3	A	8
<i>International Journal of Intercultural Relations</i>	1	A*	7
<i>International Journal of Human Resource Management</i>	3	A	6
<i>International Journal of Cross Cultural Management</i>	1	B	4
<i>Cross Cultural Management: An International Journal</i>	1	B	3
<i>Academy of Management Journal</i>	4*	A*	2
<i>Business Horizons</i>	2	C	2
<i>Journal of World Business</i>	4	A	2
<i>Organizational Behavior & Human Decision Processes</i>	4	A*	2

Journal	AJG	ABDC	Number of publications
<i>Applied Psychology: An International Review</i>	3	A	1
<i>Asia Pacific Journal of Human Resources</i>	2	-	1
<i>Career Development International</i>	2	B	1
<i>Educational and Psychological Measurement</i>	-	B	1
<i>Harvard Business Review</i>	3	A	1
<i>Human Resource Development International</i>	2	B	1
<i>Human Resource Development Quarterly</i>	2	B	1
<i>Human Resource Development Review</i>	2	B	1
<i>International Studies of Management & Organization</i>	2	B	1
<i>Journal of General Management</i>	2	B	1
<i>Journal of Management Education</i>	2	B	1
<i>Journal of Organizational Behavior</i>	4	A*	1
<i>Journal of Social Issues</i>	-	A	1
<i>Management and Organization Review</i>	3	A	1
<i>Personality and Individual Differences</i>	3	A	1
<i>Research in Organizational Behavior</i>	3	A	1
<i>Singapore Management Review</i>	1	C	1
Total			63

Note: The rankings in columns 2 and 3 are based on respectively Association of Business Schools' AJG 2015 and ABDC Journal Quality List (version 2013). There are a few inconsistencies between the two lists. For instance, there are two journals that are not ranked on the AJG, but are very well ranked in the ABDC list and there is one journal, Asia Pacific Journal of Human Resources, that does not appear in the ABDC ranking, but has grade 2 in the AJG list.

Table 2.1 reveals that 24 of the 63 articles (38%) are published in journals with an international focus, with *International Journal of Intercultural Relations*, *Cross Cultural Management: An International Journal*, *International Journal of Cross Cultural Management*, and *International Journal of Human Resource Management* having published the majority of the studies. The remaining articles are published in Management (38%), Education (19%), and Psychology (5%) journals. Furthermore, the *Academy of Management Learning & Education* (AMLE) views CQ as a pressing issue in management education and seven of the 10 AMLE articles were published in 2013, including those from a special issue on cross-cultural

management education, providing evidence that CQ has recently gained increased attention among scholars. Figure 2.1 illustrates the temporal development of the conceptual and empirical research.

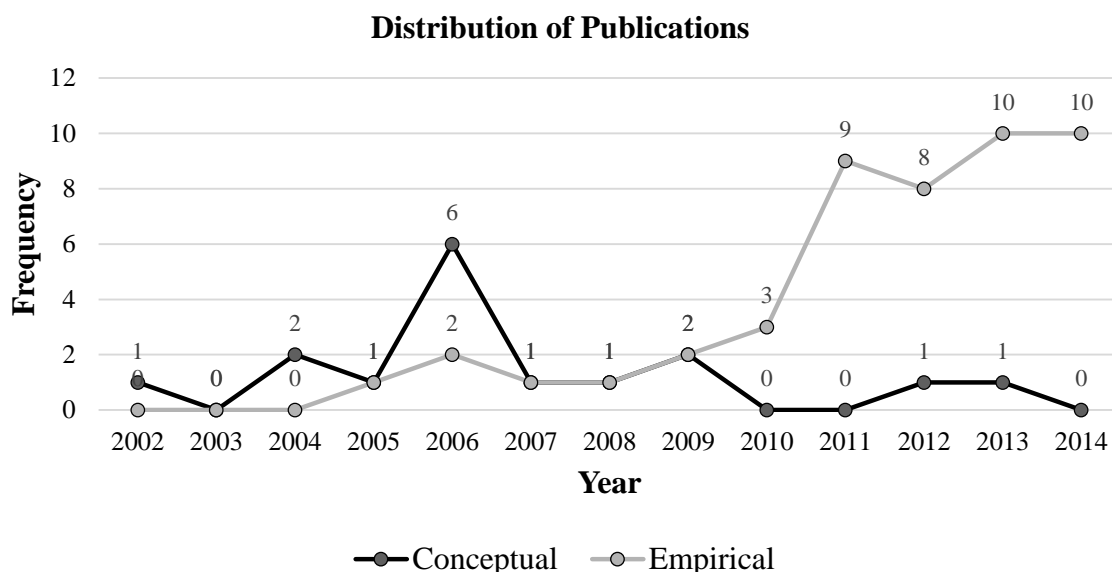


Figure 2.1 Temporal conceptual and empirical development of the CQ literature.

Note: Earley and Ang (2003) is a book, which is why there are no 2003 publications included in Figure 2.1.

As shown in Figure 2.1, in 2006 there was an increase in articles published on the topic of CQ, including a special issue in *Group & Organization Management*, which makes up the entirety of the articles in that year. Since 2009, there has also been steady and continuous interest in CQ in empirical research and noticeably less in conceptual research. The articles published after 2009 mainly examine the antecedents to, and outcomes of, CQ. Additionally, prior to 2011 there was only one article investigating the antecedents to CQ, but since then there has been a significant increase in such publications, with more than 50% of studies investigating CQ focusing on antecedents to CQ rather than outcomes, a trend that we attribute to the 2013 *AMLE* special issue “Cross-cultural Management Learning and Education”. All this suggests that after the introduction of the CQ construct, its conceptualization and outcomes garnered the main interest of scholars and once the applications and implications of CQ were assessed, greater focus on its antecedents followed.

2.2.3 Analysis of the CQ literature

To analyze the selected articles, we first categorized each of the 63 studies as either conceptual or empirical and then further classified the empirical studies into sub-groups based on how the construct of CQ was utilized: as an independent, dependent, mediating, or moderating

variable. Figure 2.2 depicts the variables and the associated references, and how they fit within this classification, followed by a thorough discussion on how CQ has been examined. The theoretical literature is presented in the upper part of the diagram and the empirical literature is at the bottom.

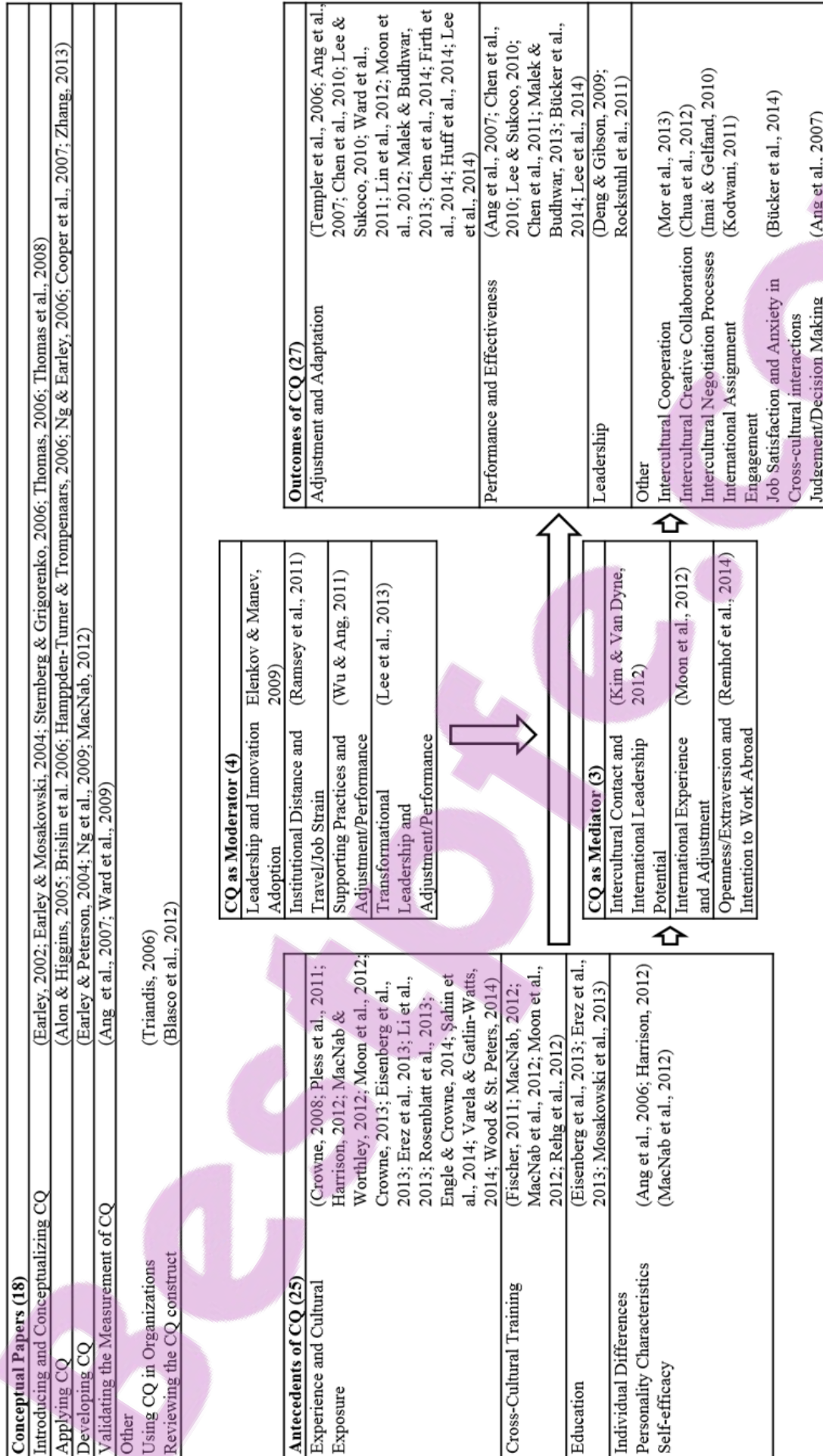


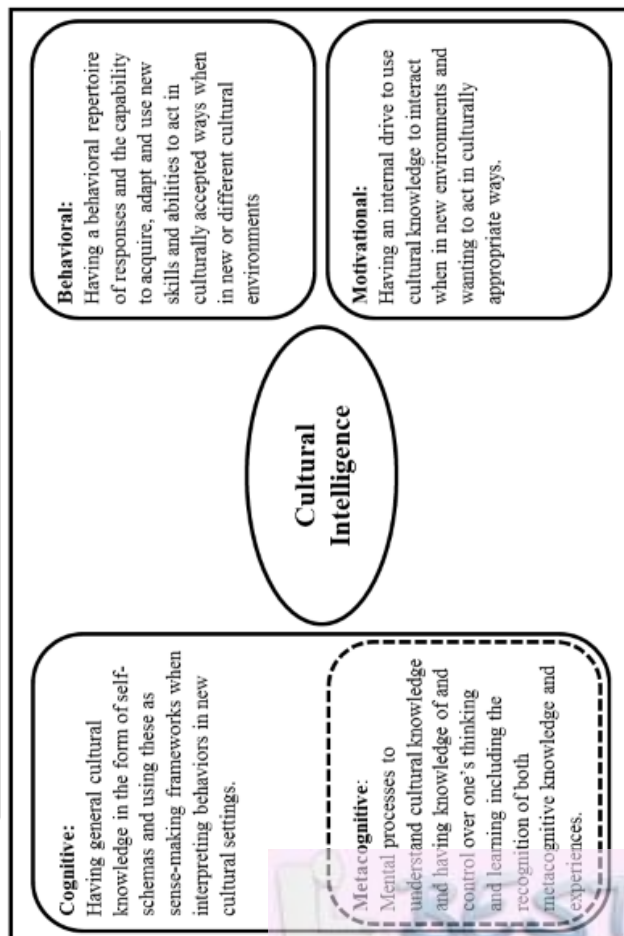
Figure 2.2 Overview of how CQ is presented in the 63 reviewed articles.

Note: Some papers used CQ in multiple ways within the same publication and therefore are listed more than once dependent on how CQ was used.

2.2.3.1 Conceptual research on CQ

Two distinct conceptualizations of CQ have developed within the literature, one introduced by Earley and Ang (2003) and other by Thomas et al. (2008). Both conceptualizations view CQ as a multifaceted construct based on Gardner's (1983) theory of multiple intelligence. In addition, both distinguish CQ from social intelligence (Thorndike, 1936; Kihlstrom & Cantor, 2000) and emotional intelligence (Salovey & Mayer, 1990; Goleman, 1995). While these intelligences may assist individuals in their own culture or in a single culture (Cartwright & Pappas, 2008), variances between cultures in social interaction norms and behaviors makes these abilities less effective across multiple cultures. CQ, according to both conceptualizations, specifically applies to more than one culture. An illustration of the two conceptualizations of CQ and brief descriptions of the facets of each are provided in Figure 2.3. The left part of the figure illustrates Earley and Ang's (2003) conceptualization and the right part depicts Thomas et al.'s (2008).

CQ facets according to Earley and Ang's (2003) conceptualization



CQ facets according to Thomas *et al.*'s (2008) conceptualization

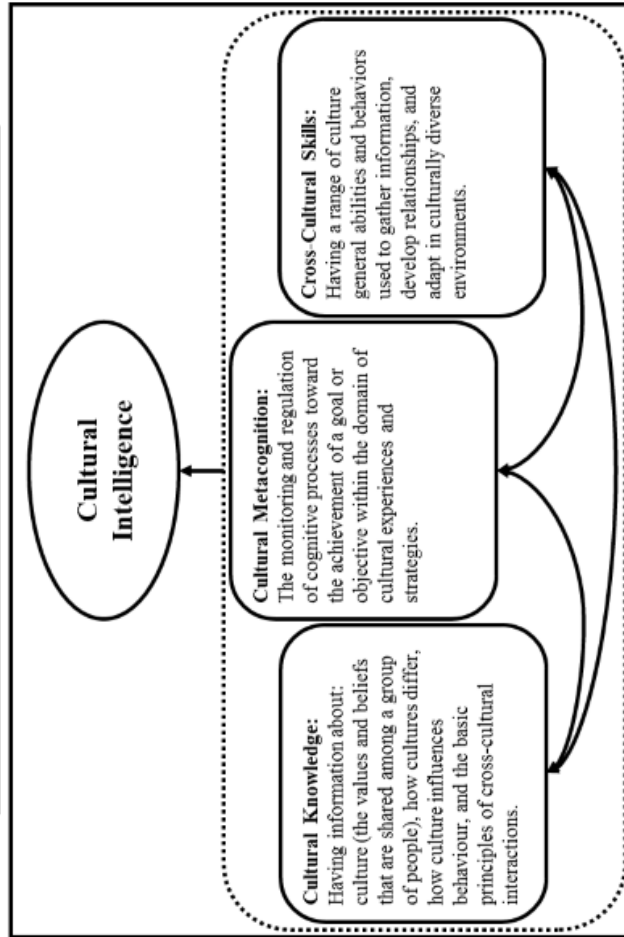


Figure 2.3 The facets of CQ according to Earley and Ang's (2003) and Thomas *et al.*'s (2008) conceptualizations.

Earley and Ang (2003) conceptualize CQ as a multidimensional construct comprised of three facets: cognitive (including metacognitive), motivational, and behavioral. Drawing on the theoretical framework of multiple loci of intelligence (Sternberg & Detterman, 1986), where mental capabilities are made up of metacognition, cognition and motivation, and behavioral capabilities are based on overt actions, Earley and Ang (2003) include both cognitive and behavioral facets. While they state that CQ results from the interaction of the facets and an individual must have all of the facets to achieve CQ, they do not specify how the facets interact. In addition, they describe the cognitive and metacognitive facets of CQ jointly, with metacognition being a part of the cognitive facet.

Cognitive CQ is similar to the traditional concept of intelligence - it is the knowledge and information about other cultures that an individual acquires and stores for future use. How an individual processes and uses this information, however, is part of the metacognitive facet. The behavioral facet allows the individual to enact appropriate verbal and behavioral actions when interacting with others in cross-cultural situations. Finally, the motivational facet drives an individual to interact in cross-cultural settings, and reflects the individual's valuing of intercultural interactions and positive use of CQ. The facets work together, according to Earley and Ang (2003), for a person to be able to interact appropriately with members of multiple cultures. Necessary components of CQ include: having relevant knowledge, being able to process that knowledge, knowing how to adapt and portray that knowledge, and being motivated to use that knowledge.

The second definition and conceptualization of CQ, originally introduced by Thomas and Inkson (2004; 2009) and Thomas (2006), bears some similarities to transcultural communication competence (Ting-Toomey, 1999) and builds on Earley and Ang's (2003) definition of CQ. This conceptualization initially presented CQ as an interrelated construct consisting of knowledge, mindfulness and behavioral abilities that combine to result in effective interactions across cultures. Later this definition was refined to refer to "a system of interacting knowledge and skills, linked by cultural metacognition that allows people to adapt to, select, and shape the cultural aspects of their environment" (Thomas et al., 2008, p. 126). The multifaceted nature of the intelligence construct (Gardner, 1983; Sternberg, Lautrey, & Lubart, 2003) is reflected in Thomas et al.'s (2008) definition, which views CQ as a higher-order construct that emerges out of the interaction of the lower order facets of the construct.

To conceptualize CQ as a type of intelligence instead of as an intercultural competency, Thomas et al. (2008) differentiate between intelligence (knowledge and skills) and intelligent behavior (enacting appropriate behavior based on knowledge and skills). They emphasize that

CQ must capture the aspects of intelligence that are similar across cultures rather than what varies between them. Therefore, cultural knowledge and skills are developed in specific cultural contexts, but their effectiveness in producing culturally intelligent behavior relies on cultural metacognition, which is culture general. This conceptualization views CQ as a system of abilities and posits cultural metacognition as the essential function within CQ linking it to culturally intelligent behavior. Thomas et al. (2008) emphasize that although cultural metacognition serves a central role within their conceptualization of CQ, the facets of CQ cannot be separated, but instead have an interactive relationship with each other.

Based on their definition, Thomas et al. (2008) conceptualize CQ as having three underlying facets: cultural knowledge, cross-cultural skills, and cultural metacognition (Figure 2.3). Cultural knowledge includes both culture specific content knowledge about values, beliefs and behaviors of other cultures and the values and beliefs of the individual, and general procedural knowledge about the processes used to evaluate cultural differences, understand the effect of culture on behavior, solve problems, and the fundamental processes of cross-cultural interactions (Thomas et al., 2008). Cross-cultural skills include: 1) perceptual skills about how an individual develops their perceptions of others and their behavior, and how they interpret the meaning of displayed behaviors; 2) relational skills about how an individual develops and maintains relationships with others; and 3) adaptive skills about the abilities to adjust general approaches to social interaction to new situations. Finally, cultural metacognition includes processes to monitor and regulate conscious and deliberate thoughts including cognitive self-regulation, abstraction of specific knowledge, focus of cognitive resources, and compensatory effects (Thomas et al., 2008).

Although there are similarities between the two conceptualizations depicted in Figure 2.3, Thomas et al. (2008) have criticized some of the features of Earley and Ang's (2003) concept, particularly it being an aggregate construct. Thomas et al. (2012) distinguish their concept as being a latent construct, highlighting the linking role of cultural metacognition and emphasizing that it is the interaction among the facets that results in CQ. Based on arguments by Law et al. (1998), Thomas (2006) explains that a necessary condition of a well-defined multidimensional construct is that it specifies the relationships between the dimensions and the overall construct, otherwise it loses its utility. This specification is lacking in Earley and Ang's (2003) conceptualization and in later developments by Ang et al. (2007) and Ang and Van Dyne (2008), which place the four facets and the overall construct at the same level and describe the facets as "different types of capabilities that together form the overall CQ construct" (Ang & Van Dyne, 2008, p. 7).

A second major difference between the conceptualizations is related to the motivational facet. Earley and Ang (2003) describe this facet as the driver that directs effort and energy to interact positively in culturally diverse situations. In contrast, Thomas et al. (2012) explain that being motivated towards positive interactions is not a requirement for CQ, and although presented in a positive light, does not prevent highly culturally intelligent individuals from being negatively motivated. Motivation is having a “willingness to behave in a particular way”, while CQ is an “ability to interact effectively” (Thomas et al., 2014, p. 5).

Returning to the upper part of the model in Figure 2.2 that depicts the theoretical papers on CQ, provides a notable observation. While scholars have provided insights on what CQ is and how to measure it (Earley, 2002; Earley & Mosakowski, 2004; Sternberg & Grigorenko, 2006; Thomas, 2006; Ang et al., 2007; Thomas et al., 2008), there have been few theoretical developments since 2009. Theory has been seriously incorporated and applied to develop the construct of CQ, but CQ remains as just that - a construct (Earley & Ang, 2003; Thomas et al., 2008). Constructs are necessary for building theory, but are not a sufficient condition for theory (Suddaby, 2010). Theorizing is necessary in order to understand how, when and why CQ is influenced by or influences other constructs or variables, and to determine its utility to explain phenomena of interest (Bacharach, 1989).

Some of the theoretical articles do suggest how CQ can be utilized in empirical research and what relationships can be anticipated to result from its use. Alon and Higgins (2005), for example, propose CQ as a moderator on the link between domestic and global leadership success, and Cooper et al. (2007) suggest that CQ moderates the relationship between interactions and the assessment of behaviors. In addition, Ng and Earley (2006) develop a testable model of anticipated antecedents and outcomes of CQ, and discuss lifting CQ to the team and/or organizational level and the utility of the construct at these levels. However, theory-based explanations for why CQ should be expected to increase expatriate adjustment, performance, or other outcomes are few and remain very slim.

At the same time, there is more extensive theorizing on how to teach or train CQ. For example, Ng et al. (2009) integrate Experiential Learning Theory and CQ development to explain how CQ influences the focus of an international assignment and results in positive learning outcomes. Varela and Gattlin-Watts (2014) examine the effectiveness of using Experiential Learning Theory for education-related international experiences. In addition, MacNab (2012) developed a seven-stage CQ training framework and concluded that it is effective. Research continues to apply and find this training framework appropriate (MacNab, Brislin, & Worthley, 2012).

As illustrated in Figure 2.1, shortly after the introduction of CQ there were several theoretical developments and only a few empirical papers. This was followed by a number of empirical papers and very few theoretical ones. While one can speculate that a natural next step would be a return to theoretical developments, this appears to be absent from the progression of the literature. There could be two reasons for that - either CQ has been accepted as a construct and the literature has moved firmly towards empirical investigations, or most theoretical gaps have been addressed. As discussed in greater detail ahead, our review confirms that the latter is not the case.

2.2.3.2 Empirical research on CQ

Most of the empirical studies we reviewed are quantitative and are published between 2010 and 2013. Also, the majority of the studies are conducted at the individual level of analysis. This is not surprising as CQ was originally conceptualized as an individual-level construct. Earley and Ang (2003, p. 6) stated: “CQ as a group-level construct does not really make sense in the way that we approach the construct, just as an individual-level definition of intelligence or personality does not apply to groups or teams without significant redefinition and adaptation.” Although some attempts have been made to consider team (Adair, Hideg, & Spence, 2013), firm (Ang & Inkpen, 2008), and organization (Moon, 2010; Yitmen, 2013) level CQ, no literature has effectively lifted the level of analysis above individual.

In the 63 articles we identified 81 individual empirical relationships between CQ and other variables (bottom part of Figure 2.2). Of these, 34 identified CQ as the dependent variable, 10 utilized CQ as a mediator or moderator, and 37 focused on CQ as the independent variable. In other words, there has been equal interest in determining antecedents to, and outcomes of, CQ. Appendix 2 (see section 2.2.8) lists the research design approach, how CQ is measured, the theory utilized, and the main findings of each study.

2.2.3.2.1 Measuring CQ

All of the empirical literature depicted in Figure 2.2 is based on Earley and Ang’s (2003) conceptualization of CQ and the majority utilized the corresponding CQS (Ang et al., 2007). Describing CQ as an aggregate multidimensional construct, Ang et al. (2007) introduced and validated the reliable four-factor measure. (We note that while the CQS was published by Ang et al. in 2007, it was first presented at an Academy of Management Meeting in 2004.) Examples from the 20-item CQS scale include “I am conscious of the cultural knowledge I apply to cross-cultural interactions” (metacognitive) and “I vary the rate of my speaking when a cross-cultural situation requires it” (behavioral). Responses are made on a 7-point strongly

disagree-strongly agree scale where a higher score indicates greater CQ. The authors validated the CQS by providing evidence that “CQ is conceptually and empirically distinct from other individual differences” including emotional intelligence and personality (p. 363); and testing the relationships between different facets of CQ and specific outcomes indicating intercultural effectiveness. For example, they demonstrated that metacognitive and behavioral CQ predicted task performance, metacognitive and cognitive CQ related positively to cultural judgment and decision making effectiveness, and motivational and behavioral CQ related positively to cultural adaptation and wellbeing.

Within the CQ antecedent literature many scholars have relied on the CQS or CQS selected items related to a specific facet (Firth, Chen, Kirkman, & Kim, 2014). Pless et al. (2011) and Mosakowski et al. (2013) are exceptions – they collected and analyzed qualitative data to assess CQ development. In addition, a few researchers used modified versions of the CQS (MacNab, 2012; MacNab et al., 2012; MacNab & Worthley, 2012), and some have used shortened versions of the CQS (Fischer, 2011; Varela & Gatlin-Watts, 2014). CQ has almost exclusively been measured using the CQS when examining its relationship with outcomes. The only exceptions are Lee and Sukoco (2010) who used nine items from an earlier version of the CQS (Earley, Ang, & Tan, 2006), Mor et al. (2013) who employed a scale developed to measure the cultural metacognition sub-dimension of CQ (Van Dyne, Ang, Ng, Rockstuhl, Tan, & Koh, 2012), and Deng and Gibson (2009) who analyzed qualitative data based on the four CQ facets.

Based on Thomas et al.’s (2008) conceptualization, Thomas et al. (2012) operationalized CQ as comprised of a single second-order factor with three first-order facets - knowledge, skills, and cultural metacognition - and developed a web-based measurement tool utilizing multiple assessment approaches. Although this tool demonstrated good reliability and validity, its complexity “limited its acceptance and utility” (Thomas et al., 2015, p. 5). As a result, Thomas et al. (2015) introduced and validated a reliable 10-item Short Form measure of Cultural Intelligence (SFCQ) scale to measure CQ. Examples from the SFCQ scale include “I enjoy talking with people from different cultures” and “I am aware of the cultural knowledge I use when interacting with someone from another culture”. Responses are made on a 5-point not at all-extremely well scale where a higher score indicates greater CQ.

Thomas et al. (2015) validated the SFCQ by demonstrating that CQ is distinct from personality and emotional intelligence, and is negatively correlated with ethnocentrism and positively correlated with other indicators of multicultural experience. They further demonstrated that CQ predicts important intercultural effectiveness outcomes including

“sociocultural adaptation, the development of long-term relationships with culturally different others, job performance in a multicultural environment, and the ability to make accurate causal attributions for cross-cultural interactions” (p. 11). These results are informative and promising.

2.2.3.2.2 Antecedents to CQ

Studies that place CQ in the position of a dependent variable (depicted at the bottom left of Figure 2.2), are relatively recent with only four published before 2012. This seems natural since it was mainly theoretical developments and outcomes of CQ that constituted the original focus of the literature. Furthermore, CQ is developed from knowledge of varying cultural social contexts (Earley & Ang, 2003) and from experience with culturally different others (Thomas et al., 2008), so it was assumed to result naturally from experience in other cultures and through educational interventions. This assumption, however, has been challenged and it remains rather unclear how an individual develops or strengthens these skills. Most articles on the antecedents to CQ focus specifically on international experience/cultural exposure and training/education to develop CQ, while some others concentrate on individual differences.

International experience and cultural exposure. CQ is conceptualized as a state-like construct consisting of a set of malleable capabilities that can be influenced by exposure to foreign cultures and are thus susceptible to development (Ang & Van Dyne, 2008). However, conclusions on the influence of experiences with and within other cultural domains have been mixed. Crowne (2008; 2013) led the way in investigating this idea by measuring the impact of cultural exposure on university students' CQ and further comparing their CQ based on the type, breadth, or depth of the experience. Utilizing Takeuchi et al.'s (2005) framework to differentiate work and non-work experiences, she demonstrates that the number of countries visited for work predict metacognitive, cognitive, and behavioral CQ, and the number of countries visited for non-work predict cognitive and behavioral CQ. The depth or type of the cultural exposure also made a significant difference, with education or work abroad leading to higher CQ than other experiences such as international vacations (Crowne, 2008; 2013). In addition, Moon et al. (2012) concluded that non-work international experiences predict CQ better than work-related experiences and, using a pre- and post-test design, Şahin et al. (2014) demonstrated that international assignments significantly increase all four facets of CQ. Finally, Engle and Crowne (2014) provided further evidence that even short-term international experiences increase all four CQ facets.

These findings, however, contrast with other studies where the relationship between international experience and CQ was not strong enough to conclude a significant link between

the variables (MacNab & Worthley, 2012; Eisenberg et al., 2013; Li, Mobley, & Kelly, 2013; Varela & Gatlin-Watts, 2014; Wood & St. Peters, 2014). When examining the individual facets of CQ, Varela and Gatlin-Watts (2014) used a pre- and post-test design to demonstrate that international experience primarily impacts on the cognitive and metacognitive facets. The influence of experience with other cultures on cognitive CQ was further supported by Li et al. (2013) who suggest that motivational CQ also benefits from international experience. The behavioral facet of CQ appears to be the least likely to develop through international experience, with Wood and St. Peters (2014) attributing this to the absence of direct interaction with members of other cultures. Finally, Eisenberg et al. (2013) demonstrate that international experience significantly relates to CQ before an educational intervention, but after subjects participated in a cross-cultural management course, it no longer caused an effect, which challenges the necessity of international experience for CQ development. Based on the results of these studies, one is inclined to conclude that international experience does influence CQ to some extent. However, the wide range of research findings and the inconsistent results have provided little clarity about how exactly international experience can be utilized to develop CQ.

Training and Education. To investigate the influence of educational interventions on the development of CQ, MacNab (2012) and MacNab et al. (2012) had university students participate in a structured training program and measured its impact on the participants' CQ. In both studies, experiential training based programs that included a contact component significantly increased participants' CQ, with the metacognitive and behavioral facets showing the most improvements. Further supporting the use of experiential training, Fischer (2011) found that training that included lectures, a simulation game, and a behavior modification session, but not a contact component, decreased participants' cognitive and metacognitive CQ and had no impact on their motivational and behavioral CQ. Fischer (2011) explained that participants appeared to move from "unconscious incompetence" (they believe they know about cultural differences) to "conscious incompetence" (they understand that they have deficiencies and know what these are). He argued that although the training did not have the expected impact, it was a step in the right direction in developing cultural competence. The reproduction of the learned skills in a multicultural situation, however, may have allowed the individuals to continue developing their skills while seeing the positive outcomes of their application, which partially explains why contact has been suggested as essential for increasing CQ (MacNab, 2012; MacNab et al., 2012).

Using a sample of expatriates, Moon et al. (2012) demonstrate that the length of cross-cultural pre-departure training only impacts cognitive CQ, but the comprehensiveness of the training positively impacts all four CQ facets. Additionally, Rosenblatt et al. (2013) recommend a combination of training and international experience based on evidence that targeted training improves cognitive and metacognitive CQ, while increases in motivational and behavioral CQ may require exposure to individuals from other countries. Although this argument has not been fully supported by empirical research, particularly the link between experience and behavioral CQ as previously discussed, the suggestion that a combination of training and international experience may be necessary to improve CQ is one that should be further explored.

Individual differences. Some research has examined how personality and self-efficacy influence CQ. CQ is related to, but different from, the Big 5 Personality Characteristics (Ang et al., 2007). Individuals with CQ apply different capabilities to different situations, while personality traits are generally stable and situation neutral (Ang et al., 2007). Openness to experience, an individual's tendency to be adventurous, creative, and imaginative (Costa & McCrae, 1992), has proven to be the only personality characteristic to significantly predict the CQ facets (Ang et al., 2006; Harrison, 2012). Furthermore, conscientiousness predicts metacognitive CQ, agreeableness predicts behavioral CQ and extraversion predicts motivational, behavioral and cognitive CQ (Ang et al., 2006). However, unexpectedly, emotional stability was found to have a negative relationship with behavioral CQ and Ang et al. (2006) suggest that this may result from the calmness associated with emotional stability inhibiting an individual's belief in their capabilities "to enact a wide repertoire of social behaviors in novel cultural settings" (p. 118).

Both general and task-specific self-efficacy have also been investigated as antecedents to CQ. Self-efficacy is as an individual's level of confidence in their abilities to execute specific behaviors leading to desired outcomes (Bandura, 1977). MacNab and Worthley (2012) demonstrate that general self-efficacy influences the development of CQ, while Rehag et al. (2012) provide evidence that, after training, improvements in task-specific self-efficacy are related to improvements in motivational and behavioural CQ.

2.2.3.2.3 Outcomes of CQ

The influence of overall CQ and the individual CQ facets on multiple outcomes (bottom right part of Figure 2.2) have also been investigated. Analyses of the relationships between CQ and dependent variables have mostly utilized expatriate samples and focused on resulting adjustment and performance. Finally, most of the relationships between CQ and dependent

variables have been positive and motivational CQ has emerged as the potentially vital facet in facilitating adjustment and overcoming adaptation problems.

Adjustment and Cultural Adaptation. Overall CQ has been shown to have a direct positive relationship with cultural adjustment (Lee & Sukoco, 2010; Lin et al., 2012; Chen, Wu, & Bian, 2014; Huff, Song, & Gresch, 2014; Lee, Veasna, & Sukoco, 2014). It is, however, generally more valuable for achieving general and interaction adjustment, and less relevant to work adjustment (Chen et al., 2014). Because both behavioral and motivational CQ had a negative relationship with work adjustment in Malek and Budhwar's (2013) study, the authors also concluded that CQ is not particularly helpful in the work environment. Similarly, Moon et al. (2012) also found that metacognitive CQ does not impact work adjustment.

When each CQ facet is examined with the specific types of adjustment (general, interaction, and/or work), motivational CQ positively and significantly impacts general adjustment (Templer et al., 2006; Moon et al., 2012; Huff et al., 2014), interaction adjustment (Templer et al., 2006; Huff et al., 2014) and work adjustment (Templer et al., 2006; Chen et al., 2010; Firth et al., 2014; Huff et al., 2014). In addition, Malek and Budhwar (2013) demonstrate that cognitive and metacognitive CQ positively influences all forms of adjustment. In contrast, Ang et al. (2007) used supervisor- and self-rated adjustment to show that only motivational and behavioral CQ predict all types of adjustment and predicted self-reported cultural adaptation, which includes both adjustment and well-being. Finally, having high metacognitive and motivational CQ results in fewer cultural adaptation problems (Ward et al., 2011) and it is suggested that through this relationship, may lead to better adjustment.

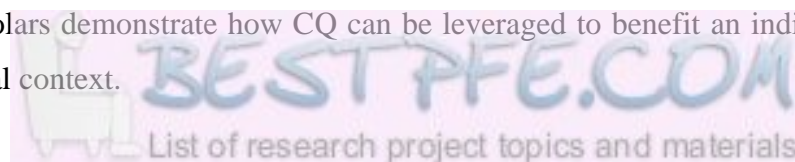
Motivational CQ has received a lot of specific attention and is generally seen as the key facet for adjustment. Chen et al. (2010) argue that the positive relationship between motivational CQ and work adjustment leads to increased job performance. Huff et al. (2014) suggest that because motivational CQ is the only facet to predict all types of adjustment, it increases the likelihood that an expatriate will be successful. Firth et al. (2014) tested a model of work adjustment change over time and demonstrate that motivational CQ is particularly important for initial work adjustment, but because it has no positive influence on expatriates' adjustment after three to four months on an international assignment, it loses power over time. Finally, Templer et al. (2006) concluded that motivational CQ is vital for facilitating adjustment among expatriates, but also acknowledge that when predicting adjustment, it is only one piece of the puzzle.

Performance and Effectiveness. The literature on the impact of CQ on performance and effectiveness reveals a complicated relationship between the variables, the impact of the

individual facets of CQ, and the role of adjustment in this relationship. Chen et al. (2011) and Lee et al. (2013) demonstrate that CQ has a positive and significant direct impact on job performance and cross-cultural effectiveness. Bückner et al. (2014) also reveal a positive and significant relationship between CQ and communication effectiveness. Focusing on the individual facets of CQ, Ang et al. (2007) concluded that metacognitive and behavioral CQ predict task performance. Furthermore, Malek and Budhwar (2013) find that motivational and behavioral CQ directly influence contextual performance and concluded that these facets help individuals perform non-technical responsibilities, which may then indirectly increase task performance. Finally, there is also evidence that in order for CQ to positively influence performance, it must first positively influence adjustment (Chen et al. 2010; Lee, Veasna, & Wu, 2013) and cultural effectiveness (Lee & Sukoco 2010). Lee et al. (2014), too, concluded that CQ has no direct influence on cultural effectiveness and must first positively influence adjustment before effectiveness is achieved. These results imply that it might take longer for the benefits of CQ on performance to be realized compared to other outcomes.

Leadership and Other Outcomes. Outside of the articles that focus on adjustment and performance, a few scholars have considered the positive influence of CQ on cross-cultural and cross-border leadership effectiveness. Rockstuhl et al. (2011) argue that leaders who work in cross-border contexts need the abilities to function in diverse environments where the social problems typically associated with leadership are compounded by the influence of culture. They utilized multisource data to compare general and emotional intelligence with CQ, and provide strong evidence that CQ is critical to the effectiveness of global leaders as the strongest predictor of cross-border leadership. Using data from interviews with managers working outside their home countries Deng and Gibson (2009) identified CQ as core cross-cultural leadership competency. They proposed a model of how individuals can improve their leadership effectiveness by increasing their CQ. These studies can be linked with work on structured training programs and education interventions aimed at developing CQ, previously discussed.

A few studies have focused on the impact of CQ on specific abilities that can enhance relationships when interacting in cultural diverse settings. These studies confirm the positive influence of CQ on intercultural cooperation (Mor et al., 2013), negotiation effectiveness (Imai & Gelfand 2010), and creative collaboration (Chua, Morris, & Mor, 2012), and its role in reducing anxiety during cross-cultural interactions (Bücker, Furrer, Poutsma, & Buyens, 2014). Overall, these scholars demonstrate how CQ can be leveraged to benefit an individual working in an international context.



2.2.3.2.4 CQ as a mediator or moderator

Examining CQ in a mediation or moderation role can reveal important insights about why and/or how CQ effects are achieved and when or under what conditions they are expected. However, possibly because of the relative recency in identifying antecedents to CQ (see Figure 2.2), this research is lagging behind. Only four out of the 63 reviewed articles investigate CQ in a moderating role and only three consider it as a mediator.

In particular, CQ has been shown to mediate the relationship between intercultural contact and leadership potential (Kim & Van Dyne 2012) and according to Moon et al. (2012), CQ also mediates the relationship between previous work experience, non-work experience, and cross-cultural training as independent variables and general and work adjustment as dependent variables. This study is particularly valuable as it links the main antecedent to and outcomes of CQ, an approach that should continue to be utilized. As a moderator, higher levels of CQ increase the positive impact of leadership on adjustment and performance (Lee et al., 2013) and innovation (Elenkov & Manev, 2009). In addition, Ramsey et al. (2011) hypothesized that CQ moderates the relationships between three types of institutional distance (regulatory, normative and cultural-cognitive) and travel and job strain. They found that high CQ helps individuals to overcome regulatory and normative distances by decreasing their impact on travel strain and to overcome regulatory and cognitive-cultural distances by decreasing job strain. However, travel strain was found to be higher in high-CQ individuals when high cultural-cognitive distances were more prevalent and job strain was higher when normative distances were higher. This is an important insight in regard to the potential boundaries of the CQ construct when there are greater distances between cultures.

Wu and Ang (2011) hypothesized and confirmed that metacognitive and cognitive CQ negatively moderate the relationship between supporting practices and adjustment, such that individuals with lower CQ will have greater dependence on, and expectations of, their organization to provide training and assistance. The authors concluded that additional support is critical for the adjustment of low-CQ individuals. Finally, Remhof et al. (2014) demonstrate that openness and extraversion are mediated by motivational CQ to increase an individual's intention to work abroad, and recommend that recruitment and selection for international assignments consider this relationship. The above findings cannot be derived at by examining CQ in direct relationships only and so, more examinations are needed to understand the complex role of CQ in general and in expatriation in particular. What more can and should be done to advance the knowledge on CQ is discussed next.

2.2.4 Discussion and avenues for future research

Our review highlights the progress scholars have made in regard to the CQ construct over a 12 year period since its introduction. We provided a comprehensive and detailed analysis of how CQ has been examined, revealing a number of areas that need further theorizing and additional empirical attention. Next, we further discuss our review findings and use them to recommend avenues for future research. We start by suggesting two ways for advancing conceptual research on CQ, followed by proposing two avenues that we find promising for continuing its empirical examination.

2.2.4.1 Avenues for future conceptual research

The conceptual literature we reviewed primarily aimed to introduce and conceptualize CQ, validate its measurement using the CQS and investigate the application of CQ. Our review highlighted some major differences between Earley and Ang's (2003) and Thomas et al.'s (2008) conceptualizations of CQ. We noted that a result of the operationalization of Earley and Ang's (2003) conceptualization by Ang et al. (2007) is an aggregate construct, while Thomas et al.'s (2008) conceptualization is what Edwards (2001) would describe as a superordinate construct.

Our review also demonstrated that there has been a recent absence of theoretical articles on CQ. Since 2009 there have been only three conceptual publications: a study about education as a mode of CQ development (MacNab, 2012), an article proposing cultural distance as a moderator of the relationship between CQ and adjustment (Zhang, 2013), and an article by Blasco et al. (2012) who challenge the assumptions of CQ and conclude that further research should be aimed at "documenting empirical examples and devising methodologies that can help us test, amend or refine the concept" (p. 242). We pointed out that the inconsistent results within the empirical literature not only provide an opportunity, but strongly invite for further theorizing about the CQ construct. We subscribe to Cropanzano's (2009, p. 1305) view that "if there are few theory articles but a lot of empirical ones, then the area could use some additional synthesis". Particular opportunities for further theorizing about the CQ construct include investigating if and how the individual CQ facets are related to each other and determining which, if any, facet(s) matter(s) most. In addition, the application of theories to explain potential links between antecedents and CQ may help to unravel some of the inconsistent results we discussed.

Research avenue 1: More theorizing about the CQ construct and interrelationships among the individual facets

There is a need for additional and more detailed theoretical understanding of the CQ construct. Determining whether all four CQ facets, as conceptualized by Earley and Ang (2003), are necessary and can be developed and exploited is imperative. Within the research investigating antecedents to CQ, we found that mainly the cognitive and metacognitive facets are developed through international experience (Li et al., 2013; Varela & Gatlin-Watts, 2014). Rosenblatt et al. (2013) suggest that the motivational and behavioral facets may also benefit from contact with members of other cultures, but the literature can absorb more insights regarding this. Furthermore, as demonstrated by Ang et al. (2007), there are different relationships between the four CQ facets and intercultural effectiveness outcomes and some research has identified motivational CQ as the necessary dimension for achieving adjustment (Templer et al., 2006; Ang et al., 2007; Chen et al., 2010; Firth et al., 2014; Huff et al., 2014), while others have demonstrated that cognitive (Moon et al., 2012; Malek & Budhwar, 2013), metacognitive (Malek & Budhwar, 2013), or behavioral (Ang et al., 2007; Moon et al., 2012) CQ are more important.

Given the sometimes contradictory findings about the relationships between individual facets and their development or links to outcomes, the question remains of whether we need an aggregate construct (Earley & Ang 2003) or an integrated construct (Thomas et al., 2008). As Gelfand et al. (2008, p. 380) point out, “although CQ facets were originally purported to act in concert in influencing behavior, very little research has examined how the dimensions *interact* in predicting outcomes” (original emphasis). It may be that deficiencies in some facets can be counterbalanced by high levels of other facets. In addition, the presence of some facets within an individual may increase the capability of developing other facets. Theorizing about the interplay among the facets and investigating links between the facets and their development or impact on outcomes are needed to deepen the understanding of the CQ construct. The conceptualization of CQ introduced by Thomas et al. (2008) seems to be particularly helpful for better understanding of the CQ construct. As we discussed, according to Thomas et al. (2008) the facets of CQ cannot be separated and are inherently interactive. Focusing on CQ as an integrated construct holds promise for its further detailed and more nuanced conceptual understanding as well as for stimulating its empirical examination.

Research avenue 2: Better theoretical grounding of the examination of how CQ can be developed

As we have emphasized, only a few articles utilize theory to explain hypothesized

relationships between antecedents and CQ (see Appendices). Because of the inconsistent and often conflicting findings, questions remain as to how CQ is developed. Specific relationships are needed between the variables, and the power of theories should be used to establish and examine these relationships. We anticipate a continuation of the progress made by studies that use cross-cultural management courses in classroom settings to increase individuals' CQ (Eisenberg et al., 2013), and the emergent stream considering Experiential Learning Theory (Li, 2009; Ng et al., 2009) that has been powerful for designing education and training programs to develop CQ (MacNab, 2012; MacNab et al., 2012; MacNab & Worthley, 2012).

We call for more specific attention to be given to how and why international experience may or may not influence CQ development. The need for utilizing underlying theories to explain anticipated outcomes of the role of international experience provides a significant research opportunity. The insufficient clarity about how international experience may be utilized to develop CQ may be due to a lack of cohesive theoretical grounding in the respective studies. Within the CQ literature various theories have been suggested (see Appendix 2 in section 2.2.8), but are seldom utilized. Furthermore, several papers make no mention of theory at all to explain the anticipated relationships between international experience and CQ and this, in itself, may partially account for the variation in findings and conclusions. Recently, Ang et al. (2011) argued that when investigating the international experience hypothesis, there is a need for "theoretical refinement to unravel inconsistent results" (p. 591).

In addition to Experiential Learning Theory, other theories may provide illuminating lenses for examining CQ development. We see SLT (Bandura, 1977b) and Social Cognitive Theory (Bandura, 1986) as particularly fertile in that respect. According to SLT, individuals learn new behaviors through attention, retention, and reproduction, which are influenced by motivation and consequences (Bandura, 1977). Therefore, in order for an individual to learn the behaviors, customs, and cultural norms important for living and working in a different country, the individual needs to observe the behavior of natives and have the opportunity to reproduce those behaviors in the environment. SLT integrates both cognitive and behavioral processes and could be used to explain the relationship between previous international experience and CQ development. Social Cognitive Theory considers the bidirectional interaction of behavior, cognitive and other personal factors, and the environment with the addition of modeling influences (Bandura, 1986). According to the theory "observers extract the rules governing the specific judgments or actions exhibited by others" (Bandura, 1986, p. 363) and once the rules are learned, they are integrated to generate new "courses of action that go beyond what they have seen and heard" (Wood & Bandura, 1989, p. 363). Therefore,

Social Cognitive Theory could also be very useful for not only explaining, but also predicting CQ development through the opportunity for individuals to model appropriate behaviors and form knowledge based on these activities.

2.2.4.2 Avenues for future empirical research

Our review of the empirical literature on CQ found that Earley and Ang's (2003) conceptualization of CQ has, so far, been heavily dominating the CQ literature. Thomas et al.'s (2008) conceptualization of the construct has yet to be incorporated into empirical investigations. We also discussed how CQ has been measured primarily utilizing the CQS. When introducing the CQS, Ang et al. (2007) did not discuss overall CQ or its potential relationships with outcomes, but demonstrated that "specific dimensions of CQ have differential relationships with cognitive, affective and behavioural intercultural effectiveness outcomes" (p. 365). Correspondingly, many scholars have empirically incorporated only single facets into their investigations (Templer et al., 2006; Ramsey, Leonel, & Gomes, 2011; Firth et al., 2014; Remhof, Gunkel, & Schlaegel, 2014). Lee and Templer (2003) warn that "any assessor who limits him- or herself to only one assessment method is making a serious error and indeed may not actually be conducting an overall CQ assessment, but rather a limited measurement of a single attribute of CQ" (p. 208). Thomas et al. (2015) recently introduced the SFCQ scale, where they refer to CQ as an integrated construct and link it to intercultural effectiveness outcomes, as opposed to investigating its dimensions individually. Therefore, this key difference between the two conceptualizations of the construct points to an important consideration for scholars utilizing the CQ construct. When using Earley and Ang's (2003) conceptualization the hypotheses can measure relationships between the facets of CQ and antecedents or outcomes; when utilizing Thomas et al.'s (2008) conceptualization and the SFCQ (Thomas et al., 2015) measurement tool, the construct should not be separated and only overall CQ should be investigated.

As we highlighted, it remains unclear whether CQ is developed through international experience or exposure to other cultures. Intuitively international experience should influence its development through contact with members of other cultures providing opportunities to development knowledge and skills for future interactions. We can conclude, however, that the use of structured training programs and education has been more effective in developing CQ. Finally, individual differences such as the openness personality characteristic and self-efficacy have been demonstrated to predict an individual's CQ.

Within the literature on outcomes of CQ, although we concluded that CQ predicts expatriate's general and interaction adjustment and performance, we pointed out that the literature has

found this relationship to be more complicated. Previous research demonstrated that expatriate adjustment is important for higher performance (Hechanova, Beehr, & Christiansen, 2003) and our review similarly identified that the positive impact of CQ on performance is mediated by adjustment (Chen et al., 2010; Lee & Sukoco, 2010; Lee et al., 2013; Malek & Budhwar, 2013). Finally, we found that CQ contributes to leadership effectiveness and has been proven to, as theorized, have a positive influence on multiple outcomes important for successful interactions with members of other cultures. Therefore, CQ should continue to be utilized within empirical investigations aimed at understanding intercultural effectiveness.

Particular opportunities for future empirical research on CQ include further work on understanding how exactly international experience may lead to the development of CQ, including the empirical testing of models incorporating theory, as discussed above, and more meaningful measurements of the international experience variable. In addition, investigations on the influence of CQ on other challenges faced by expatriates, such as repatriation, should also be explored. Finally, we advocate for the continuation of research including moderation and mediation within empirical models to incorporate contextual factors and personality.

Research avenue 3: Incorporation of better measures of international experience and investigations on how CQ may assist expatriates associated with overcoming challenges in international assignments

We observed variance in the results regarding the impact of international experience on CQ within the literature placing CQ as a dependent variable. We argue that this may stem from inadequate measures of international experience, which has been frequently operationalized as the number of countries visited or lived in, or the length of an international experience. Using these rather simplistic measures has limited the understanding of how different situational or experience variables influence CQ development. It has been argued that for an individual to develop CQ, something more than exposure to foreign cultures is necessary (Ang et al., 2011; Eisenberg et al., 2013). As a malleable construct, interaction within foreign environments is necessary for the development of CQ (Earley & Ang, 2003; Thomas et al., 2008), but not all international experiences provide the same opportunities to interact with members of foreign cultures. Constructs such as vicarious observational learning and attention processes have been demonstrated to increase learning outcomes if employed prior to direct experiential learning (Hoover, Giambatista, & Belkin, 2012). Thus, it is possible to measure observations during international experiences and determine how they relate to CQ development. We suggest that our previous recommendation for more use of theory, combined with better measures of international experience, can provide a clearer picture of how international experience is

linked to CQ development.

While the research on outcomes of CQ have, understandably, focused on expatriate adjustment and performance, we find that other challenges associated with international assignments should also be examined. Harvey and Moeller (2009) argued that expatriates have a difficult time readjusting to their home culture at the end of an international assignment. Thus, repatriation adjustment provides a fruitful new area to continue the research on the benefits of CQ to individuals who undertake international assignments. In addition, other adjustment challenges, such as family and spouse adjustment (Harvey & Moeller, 2009) and the examination of the role of CQ in the adjustment of other populations who go abroad such as academics (Selmer & Luring, 2010), are additional directions that can contribute to a further understanding of the benefits of CQ.

Research avenue 4: Incorporating cultural distance and personality variables in CQ research

While we noted that research placing CQ in the position of a moderator or mediator has only recently begun to develop, we also see that there is room for additional research incorporating other variables in these positions. Researchers should consider the contextual boundaries of CQ in order to better understand how culture and cultural distance could make adaptation difficult, even for high-CQ individuals. Research so far has relied on samples consisting of individuals from multiple countries. Some of the variance in the findings regarding the impact of CQ on adjustment and performance in particular may result from cultural differences among participants in these samples. Kim et al. (2008), for example, theorize that greater cultural distance will make the role of CQ more critical for achieving adjustment and Zhang (2013) suggests cultural distance as a moderator of the relationship between CQ and adjustment. However, according to Chen and colleagues (2010), the positive influence of motivational CQ on adjustment is insufficient for overcoming the challenges characteristic of more culturally distant locations. These contextual factors should be included explicitly and more prominently in research measuring the impact of CQ on various expatriate effectiveness outcomes. Research could center on individual differences from a cultural perspective and their impact on CQ. For example, does being from a specific culture and interacting with members of another specific culture change the importance of CQ, as suggested by Zhang (2013)? Such development would be in line with recent calls for careful contextualization in IB research (Michailova, 2011).

We also recommend that future research continue to utilize personality variables within CQ research. Openness to experience is positively related to all four CQ facets (Ang et al., 2006)

and is a significant predictor of CQ (Harrison, 2012). Future research could examine personality and its sub-facets and their relationships with CQ in greater detail. For example, it could treat personality as a moderator of the relationships between CQ antecedents and outcomes. Şahin et al. (2014) demonstrated, using longitudinal data, that certain personality characteristics moderate the relationship between international assignments and CQ development, such that participants with higher levels of extraversion developed higher levels of metacognitive and behavioral CQ and those with higher levels of openness to experience developed higher levels of motivational CQ. In addition, Fischer (2011) included personality as a moderator when investigating the impact of cross-cultural training on CQ and found that open-minded individuals reported higher increases in motivational CQ. We also know that CQ predicts adjustment above and beyond personality (Huff et al., 2014), but whether personality could strengthen or weaken this relationship has not been determined. Given the results of the above investigations, this area of research would benefit greatly from additional empirical investigations.

2.2.5 Limitations and conclusion

We sought to analyze and synthesize what we have learned over more than a decade of theoretical and empirical research on CQ. Our study suffers, however, from some limitations. First, our literature selection approach included articles published only in journals ranked in two lists and left out research that has appeared in lower ranked journals and other sources. We acknowledge that the latter outlets have published studies on CQ and have documented some interesting findings. For example, based on in-depth interviews with academics, industry professionals and expatriates, Lee (2010) concludes that CQ is an important skill for expatriates at the beginning of an international assignment but loses its value over time as the individual adjusts to the foreign culture. In addition, Shannon and Begley (2008) compared peer-rated and self-rated CQ and demonstrate that they are positively related, providing initial evidence that how peers' view an individual's level of CQ is similar to how the individual views their own level of CQ. Both of these studies, while outside our scope, add to the further understanding of CQ. Second, while we adopted a multidisciplinary approach, we focused on literature where authors refer to organizations' international operations and/or to international assignments and expatriates. There is no doubt that expatriates benefit from learning more about how to develop and utilize CQ, but the increased interactions among individuals from different cultural backgrounds in domestic organizational contexts points to another population who can benefit from CQ development. Finally, we focused only on studies at the individual level of analysis. However, as other reviews have recommended (Ang et al., 2011;

Ng et al., 2012), we encourage scholars to expand what we have learned about CQ to the group, team and organization levels. We note that this should be done carefully and by applying the appropriate steps and procedures for bottom-up level transitions.

Research on CQ is leaving its adolescence. The construct has been and will continue to be an important and vibrant topic in the Management and IB literature. There are exciting opportunities ahead for gaining a deeper understanding of CQ's nomological network and there are promising avenues that are likely to attract scholars' attention. Knowing the current state of the research is a step in that direction.

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2.2.7 Appendix 1 – Conceptual papers

Table 2.2 *Reviewed conceptual papers including the source and focus of the paper.*

Source	Focus
Earley (2002)	Introduces CQ
Earley & Mosakowski (2004)	The application of CQ and how to develop it among business professionals
Earley & Peterson (2004)	CQ training and development
Alon & Higgins (2005)	CQ as a moderator on the relationship between emotional intelligence, analytical intelligence, leadership behavior and global leadership success
Brislin. et al. (2006)	Discussion of the CQ concept and its impact on adaptation
Hampden-Turner & Trompenaars (2006)	Hypotheses to consider when using the CQ construct
Ng & Earley (2006)	Culture and intelligence (encourages research focus on outcomes of CQ)
Sternberg & Grigorenko (2006)	Culture in relation to intelligence and successful intelligence
Thomas (2006)	Alternative definition of CQ
Triandis (2006)	CQ in organizations
Cooper et al. (2007)	CQ as a moderator on the relationship between cross-national interactions and behavior assessment
Thomas et al. (2008)	Alternative definition and conceptualization of CQ
Ng et al. (2009)	Integrates Experiential Learning Theory for CQ development
Ward et al. (2009)	Further validation of the CQS and theorizing about interplay among CQ facets
Blasco et al. (2012)	Cautions the use of the CQ construct
Zhang (2013)	Proposition placing cultural distance in the position of a moderator on the relationship between CQ and adjustment

Note: Studies are organized alpha-chronologically.

2.2.8 Appendix 2 – Empirical papers

Table 2.3 Reviewed empirical papers including the source, research approach, how CQ was measured, the theory utilized, and main findings of each paper.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Osland & Osland (2005/2006)	Interviews – 35 returned expatriates	N/A	-	CQ and cultural involvement are correlates.
Ang et al. (2006)	Surveys – 338 undergraduate students from Singapore university	CQS Self-report	Theory of evolutionary personality psychology	Conscientiousness is related to metacognitive CQ; agreeableness is related to behavioral CQ, emotional stability is negatively related to behavioral CQ; extraversion is related to motivational, behavioral, and cognitive CQ; and openness to experience is related to all four facets of CQ.
Templer et al. (2006)	Surveys – 157 global professionals in Singapore	CQS Self-report	-	Motivational CQ is positively related to work, general and interaction adjustment; motivational CQ predicts work and general adjustment beyond realistic job and living conditions previews respectively.
Ang et al. (2007)	Surveys – 593 undergraduate students from US and Singapore; 98 international managers in Singapore; 103 foreign professionals and their supervisors in Singapore	CQS Self-report	Self-preservation theory and Social cognitive theory	CQ is conceptually and empirically distinct from emotional intelligence and personality; metacognitive and behavioral CQ predict task performance; cognitive and metacognitive CQ predict cultural judgment and decisions making; motivational and behavioral CQ predict cultural adaptation.
Crowne (2008)	Surveys – 140 students and working adults in the US	CQS Self-report	-	Cultural exposure increases CQ and its facets; employment and education abroad increases CQ and its facets more than vacations abroad; the number of countries visited for employment or education abroad influences overall CQ and all of the facets except motivational CQ.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Deng & Gibson (2009)	Interviews – 32 Western expatriate managers; 19 Chinese managers working in Australian businesses	N/A	-	CQ plays a significant role in improving cross-cultural leadership effectiveness.
Elenkov & Manev (2009)	Surveys – 153 Senior expatriate managers; 695 Subordinates within the European Union	CQS Self-report	-	CQ moderates the relationship between visionary-transformational leadership and rate of organizational innovation, but not the relationship between visionary-transformational leadership and product-market innovation.
Chen et al. (2010)	Surveys – 556 expatriates from US Fortune 500 firms	CQS Self-report	Trait activation theory	Motivational CQ positively relates to work adjustment; work adjustment mediates the relationship between motivation CQ and job performance; foreign subsidiary support and cultural distance moderate the relationship between motivational CQ and work adjustment.
Imai & Gelfand (2010)	Surveys – 236 employees; 75 American students; 75 East Asian students	CQS Self-report	-	Overall CQ predicts intercultural negotiation effectiveness.
Lee & Sukoco (2010)	Surveys – 218 expatriates of Taiwanese MNCs	Early version of CQS Self-report	-	CQ positively influences cultural adjustment and effectiveness; CQ does not influence performance; cultural adjustment and effectiveness mediate the relationship between CQ and performance; previous international work and travel experiences moderate the relationship between CQ and cultural adjustment and effectiveness.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Chen et al. (2011)	Surveys – 382 Philippine laborers working in Taiwan	CQS Self-report	-	Overall CQ positively influences performance; metacognitive, motivational and behavioral CQ positively influence performance; cognitive CQ negatively influences performance; overall CQ and each facet negatively influence culture shock; culture shock mediates the relationship between CQ and performance.
Fischer (2011)	Surveys – 49 students (pre-/post-test design)	Short version of CQS Self-report	SLT and Training theory	Cognitive and metacognitive CQ declined after intercultural training; motivational and behavioral CQ did not significantly change after intercultural training.
Kodwani (2011)	Surveys – 310 expatriates	CQS Self-report	-	Cognitive, motivational and behavioral CQ predict expatriate's engagement; motivational CQ is the strongest predictor of expatriate's engagement.
Pless et al. (2011)	Interviews – 70 students	N/A	Experiential learning theory	CQ is learned through experiences abroad.
Ramsey et al. (2011)	Surveys – 841 international business and leisure travelers	CQS Self-report	-	CQ partially moderates the relationships between institutional distance and travel and job strain.
Rockstuhl et al. (2011)	Surveys – 126 Swiss military officers	CQS Self-report	-	CQ is positively related to cross-border leadership effectiveness; CQ is not related to general leadership effectiveness.
Ward et al. (2011)	Surveys – 104 students	CQS Self-report	-	Motivational CQ is related to fewer adaptation problems; Motivational CQ is a predictor of psychological symptoms; Motivational CQ is not a predictor of sociocultural outcomes.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Wu & Ang (2011)	Surveys – 169 expatriates in Singapore	CQS Self-report	-	Metacognitive CQ negatively moderates the relationship between expatriate supporting practices and general and work adjustment; cognitive CQ negatively moderates the relationship between expatriate supporting practices and interaction adjustment; motivational CQ positively moderates the relationship between expatriate supporting practices and work adjustment; behavioral CQ does not act as a moderator on the relationship between expatriate support practices and adjustment.
Chua et al. (2012)	Surveys – 179 (over three studies) managers and executive MBA students	CQS Self-report	-	Metacognitive CQ effects intercultural creative collaboration.
Harrison (2012)	Surveys – 718 undergraduate students in the UK	CQS Self-report	-	Openness and agreeableness predict CQ; multicultural upbringing predicts CQ; language ability and international orientation predict CQ.
Kim & Van Dyne (2012)	Surveys – 441 working adults; 181 employee-observer matched	CQS Self-report and Others-report	Contact theory	Prior intercultural contact predicts CQ; CQ predicts international leadership potential; CQ mediates the relationship between prior intercultural contact and international leadership potential.
Lin et al. (2012)	Surveys – 295 international students in Taiwan	CQS Self-report	-	Overall CQ and each facet of CQ have a positive effect on cross-cultural adjustment.
MacNab & Worthley (2012)	Surveys – 373 managers and management students	Modified CQS Self-report	Experiential learning theory	International travel experience does not influence CQ; work experience does not influence CQ; management experience does not influence CQ.
MacNab (2012)	Surveys – 743 participants (pre-/post-test design)	Modified CQS Self-report	Experiential learning theory	Metacognitive, motivational, and behavioral CQ are developed through an experiential education approach.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
MacNab et al. (2012)	Surveys – 370 participants (pre-/post-test design)	Modified CQS Self-report	Contact theory	General self-efficacy influences CQ development; training positively relates to CQ development and learning.
Moon et al. (2012)	Surveys – 190 Korean expatriates	CQS Self-report	SLT; Theory of resource allocation; Anxiety and uncertainty management theory	Previous international nonwork experience predicts metacognitive, cognitive, behavioral and motivational CQ; previous international work experience predicts metacognitive and cognitive CQ; length of pre-departure cross-cultural training predicts cognitive CQ; comprehensiveness of pre-departure cross-cultural training predicts metacognitive, cognitive, behavioral and motivational CQ; motivational CQ mediates the relationship between previous nonwork/work international experience and pre-departure training on general adjustment; cognitive, behavioral and motivational CQ mediate the relationship between previous nonwork/work experience and pre-departure training on work adjustment.
Rehg et al. (2012)	Surveys – 110 military and government civilians (pre-/post-test design)	CQS Self-report	Experiential learning theory; SLT	Training improves cognitive and behavioral CQ; training does not improve motivational CQ.
Crowne (2013)	Surveys – 485 students in US	CQS Self-report	SLT	Cultural exposure influences CQ; depth of cultural exposure influences CQ; breadth of cultural exposure influences CQ.
Eisenberg et al. (2013)	Surveys – 289 students in Austria; 150 graduate students; 35 students as control group (pre-/post-test design)	CQS Self-report	-	Cross-cultural management courses increase CQ; cross-cultural management courses have a stronger impact on metacognitive and cognitive CQ; international experience positively relates to CQ; after participating in cross-cultural management courses the impact of international experience on CQ diminishes.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Erez et al. (2013)	Surveys – 1221 MBA and graduate students (12 countries)	CQS Self-report	Experiential learning Theory	Working on multicultural team projects increase CQ initially and over time; team trust increases CQ.
Lee et al. (2013)	Surveys – 156 expatriate managers of Taiwanese MNCs in China	CQS Self-report	Socioanalytic theory	CQ moderates the relationship between transformational leadership and expatriate adjustment; CQ moderates the relationship between transformational leadership and expatriate performance.
Li et al. (2013)	Surveys – 294 international executives and graduate business students in China and Ireland	CQS Self-report	Experiential learning theory	Overseas work experience is positively related to overall CQ; divergent learning style moderates the relationship between overseas work experience and overall CQ.
Malek & Budhwar (2013)	Surveys – 134 expatriates from MNCs in Malaysia	CQS Self-report	Anxiety/uncertainty management theory	Awareness CQ predicts expatriate general, interaction and general adjustment; interaction CQ predicts expatriate general and interaction adjustment; interaction CQ has a negative relationship with expatriate work adjustment; interaction CQ predicts contextual performance.
Mor et al. (2013)	Surveys – 200 American MBA students	E-CQS (CQ sub-dimensions scale) Self and peer report	-	Metacognitive CQ predicts intercultural cooperation.
Mosakowski et al. (2013)	Interviews – 9 non US students in the US	N/A	-	Participation in service learning projects enhances CQ.
Rosenblatt et al. (2013)	Surveys – 212 management students and professionals in Australia	CQS Self-report	Contact theory	Perception of optimal cross-cultural contact does not directly impact any facet of CQ; experience of expectancy disconfirmation directly impacts each facet of CQ.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Zhao et al. (2013)	Interviews – 42 expatriate managers of Australian firms in China	N/A	-	Interrelationships between the facets of CQ such that: low cognitive CQ individuals have high motivational CQ; cognitive CQ affects behavioral CQ; motivational CQ and environment improve behavioral CQ; cognitive CQ is developed through motivational CQ and experiential learning.
Bücker et al. (2014)	Surveys – 225 Chinese managers working in foreign MNCs in China	CQSplus Self-report	-	CQ reduces anxiety in cross-cultural interactions; CQ predicts communication effectiveness and job satisfaction.
Chen et al. (2014)	Surveys – 260 international students from Western cultures in Taiwan	CQS Self-report	-	CQ predicts general and interaction adjustment; conflict management style moderates the relationship between CQ and adjustment (general and interaction).
Engle & Crowne (2014)	Surveys – 135 university students (pre-/post-test design)	CQS Self-report	Contact theory	Short-term international experiences increase each facet of CQ.
Firth et al. (2014)	Surveys – 70 expatriates	CQS Self-report	Control theory	Motivational CQ predicts initial work adjustment; initial work adjustment mediates the negative relationship between motivational CQ and work adjustment change over time.
Huff et al. (2014)	Surveys – 152 expatriates in Japan	CQS Self-report	-	CQ explains general, interaction and work adjustment above and beyond personality; only the motivational facet of CQ predicts general, interaction and work adjustment.
Lee et al. (2014)	Surveys – 256 expatriates in China and Vietnam	CQS Self-report	-	CQ predicts cultural adjustment; CQ does not predict cultural effectiveness; cultural adjustment mediates the relationship between CQ and cultural effectiveness.

Author(s)	Research approach	How CQ was measured	Theory utilized	Main finding(s)
Remhof et al. (2014)	Surveys – 518 business students in Germany	CQS Self-report	Theory of planned behavior	Motivational CQ predicts intention to work abroad; motivational CQ mediates the relationship between openness and intention to work abroad; motivational CQ mediates the relationship between extraversion and intention to work abroad.
Şahin et al. (2014)	Surveys – 112 military personnel from Turkey	CQS Self-report	Situated learning theory	Metacognitive, cognitive, motivational and behavioral CQ are higher after an international assignment than before; extraversion moderates the relationship between international experience and metacognitive CQ; extraversion moderates the relationship between international experience and behavioral CQ; openness moderates the relationship between international experience and motivational CQ.
Varela & Gatlin-Watts (2014)	Surveys – 84 business students in US (pre-/post-test design)	Shortened CQS Self-report	Experiential learning theory	International experience positively influences CQ; international experience specifically influences metacognitive and cognitive CQ; international experience predicts metacognitive CQ; greater cultural distances lead to higher levels of development of metacognitive CQ.
Wood & St. Peters (2014)	Surveys – 42 MBA students in US (pre-/post-test design)	CQS Self-report	Experiential learning theory	Short-term cross-cultural study tours increase metacognitive, cognitive and motivational CQ.

Notes: Studies are organized alpha-chronologically.

“-” = no particular theory was specified within the paper; MBA: Master of Business Administration

2.3 Conclusions

A literature review is necessary before undertaking any research project in order to identify gaps, develop new perspectives, and enhance the theoretical and methodological rigor of the project. This chapter identified patterns and gaps in the existing CQ literature by systematically organizing and analyzing the knowledge that has accumulated about CQ, and

outlined promising avenues for future research. The literature review demonstrated the importance of CQ for expatriates, and concluded, by focusing on the empirical literature and analyzing the studies based on the variables and type of relationships investigated, that CQ has a positive impact on the expatriate outcomes adjustment and performance. CQ is of particular importance for achieving adjustment while on an international assignment and the literature identifies that through adjustment, CQ positively influences performance. Given the motivations for my study, including increased expatriation, expatriate failure, and the potential relationships between international experience, CQ and expatriate outcomes, I utilize some of the recommended avenues for future research discussed within this chapter to further examine the relationship between international experience and CQ, which I present in Chapter 3.

Chapter 3. APPLYING THEORY TO EXAMINE THE LINK BETWEEN INTERNATIONAL EXPERIENCE AND CQ

3.1 Introduction

Theory has been defined in multiple ways, which has led to a lack of agreement regarding what it actually is, its purpose, and why it is needed. This makes it an obligation of the researcher to explain the role of theory with respect to their research project. Brewer (2000) described theory as being “a set of interrelated abstract propositions about human affairs and the social world that explain their regularities and relationships” (p. 192). Theory is also defined as “a statement of relationships between units observed or approximated in the empirical world” (Bacharach, 1989, p. 498). Theory provides a foundation for the connections and relationships between constructs (Mintzberg, 2005). Thus, theory is the logical argument for *why* the portrayed relationships occur and *how* the variables and constructs are connected (Sutton & Straw, 1995), which inform models that graphically represent these anticipated relationships. Researchers use arrows within diagrams to visually represent relationships that are informed by “clearly articulated” theory (Thomas, Cuervo-Cazurra, & Brannen, 2011, p. 1074). The purpose of theory is to provide explanations and predications that are testable (Gregor, 2006) and “answer questions of how, when, and why” (Bacharach, 1989, p. 498).

Although researchers often use references, data, variables/constructs, diagrams, and/or hypotheses/predications when examining phenomena, these are not theory (Sutton & Straw, 1995). References are necessary to acknowledge “the stream of logic” which authors draw from and contribute to, but they do not allow the reader to grasp the theoretical arguments (Sutton & Straw, 1995, p. 372). Although data allows for descriptions of observed empirical patterns and support or refutation of theory, it does not provide the reasons for why the patterns were observed or for predicting future patterns. Lists of variables or constructs are an important part of theory, however, only theory explains why these variables or constructs were considered and why they are connected. Diagrams are useful because they show the causal relationships among the constructs in a logical order, but cannot explain why the constructs are displayed in these orders. Finally, hypotheses are needed as the bridges between the collected data and theory, however, they do not explain why certain outcomes are expected. Therefore, theory cannot be replaced regardless of the number of references, quantity of data, amount of variables/constructs listed, detailed diagrams provided or hypotheses stated. Theory must be included in research in order to gain understanding.

Sparrowe and Mayer (2011) explain that we need theory to ground hypotheses by 1) positioning them in related research, 2) developing clear and logical arguments to explain why variables are related in the way they are, and 3) creating a sense of reason “in the relationships among the variables and processes in the proposed model” (p. 1098). In addition, effective use of theory results in unsurprising hypotheses and a clear understanding of why the constructs are associated. Once the constructs have been identified and theory applied to research investigations, the researcher is able to provide logical arguments for the relationships portrayed and then develop specific hypotheses to test their expectations.

One of the recommended avenues for future research presented in Chapter 2, ‘Research Avenue 2: Better theoretical grounding of the examination of how CQ can be developed’ identified the relationship between international experience and CQ as a specific research opportunity in need of further study. One of the ways that individuals might attain the knowledge and skills necessary to develop CQ is by learning from social interactions with members of other cultures during an international experience (Thomas & Inkson, 2009). This is the relationship that I further examine in this chapter. First, I review the literature about the link between international experience and CQ. Next, I apply theory to the link and develop a theoretical framework utilizing SLT (Bandura, 1977) to explain potential relationships between the constructs. Last, I present and discuss a set of testable propositions.

The following is a co-authored work titled ‘International experience and CQ development: A SLT framework’, which at the time of writing this thesis was under review with the *International Journal Cross Cultural Management*. Some portions of the following paper have been adjusted in order to keep within the formatting and citation style guidelines as required by the university.

3.2 International experience and CQ development: A SLT framework

CQ is theorized as a valuable set of skills for individuals during cross-cultural interactions. Based on the premise that CQ is a set of malleable capabilities that can be developed and improved through international experience, we review existing research in regards to this relationship. A careful analysis of the link between international experience and CQ reveals inconclusive and contradictory findings. We argue that this is mainly because the majority of studies lack a theoretical foundation to explain the link. We utilize SLT to address this weakness. SLT views learning as being affected by both observation and experience and includes four fundamental elements: attention, retention, participative reproduction and motivation. The central premise focuses on anticipatory action, where individuals anticipate

actions and their consequences in order to determine their behavior before they encounter a situation. Learning occurs as a result of observing others' behavior and experiencing the consequences of reproduced behaviors, which shapes future behaviors. Thus, SLT provides a sound explanation for why international experience should result in the development of CQ, if individuals are a part of and interact with the learning environment. We propose a SLT framework complemented by a set of testable propositions to explain how and why international experience can lead to the development of CQ. We argue how attention, retention and participative reproduction as processes embedded in an international experience and the influence of motivation processes (efficacy expectations and outcome expectations) can lead to CQ development. We discuss the need for investigations on this important, yet not well-understood link and the practical implications of such examinations.

3.2.1 Introduction

Globalization has significantly increased the amount of cross-cultural interactions and the number of people experiencing them. During these interactions, some individuals almost effortlessly alter their thinking and modify their behavior resulting in successful and productive interactions. Others struggle, become uncomfortable, or even suffer and may be at risk of offending members of the new environment through their actions. These differences in abilities during intercultural interactions drew the attention of Earley and Ang (2003) who introduced the construct of CQ (abbreviated as CQ because it is a facet of intelligence) to examine why some individuals easily adapt and adjust their views and behaviors in cross-cultural situations while others are unable to do so (Van Dyne, Ang, & Livermore, 2010). Scholars have used cultural competence, intercultural competence, cross-cultural competence, among others to refer to individual-level abilities to interact with culturally different others (Spitzberg & Changnon, 2009). It is, however, the concept of CQ that has become best established and utilized in research as well as in managers' vocabulary.

Earley and Ang (2003) based CQ on the theory of multiple intelligences and the Sternberg and Detterman framework (1986) that integrated several views by proposing that intelligence is made-up of multiple loci and included three facets: cognitive (including metacognitive), behavioral and motivational. Later, Ang and colleagues (2007) operationalized CQ as being made up of four "qualitatively different facets" – cognitive, metacognitive, behavioral and motivational – that together form overall CQ and represent an aggregate multidimensional construct (p. 338). They also introduced a cross-validated scale to measure CQ and argued the "conceptual distinctiveness and value of CQ as a meaningful individual different construct" (p. 362). A later conceptualization proposed by Thomas et al. (2008) treats CQ as "a system of

interacting knowledge and skills, linked by cultural metacognition that allows people to adapt to, select, and shape the cultural aspects of their environment” (p. 126) and includes three elements - cultural knowledge, cross-cultural skills and cultural metacognition. This reconceptualization of CQ is described as a latent construct and views cultural metacognition as the linking facet between cultural knowledge and skills and culturally intelligent behavior (Thomas et al., 2008). Both conceptualizations of CQ – the original one by Earley and Ang (2003) and the more recent one by Thomas et al. (2008) – focus on an individual’s capabilities to effectively interact in culturally diverse situations and translate across multiple cultures.

An individual’s inability to effectively interact and adjust in culturally diverse environments can result in damage to their career and serious financial losses for organizations (Stroh et al., 2000). Addressing this issue, research has heavily focused on CQ as an antecedent to various outcome variables. A number of studies have demonstrated the positive impact of CQ on international adjustment (Chen et al., 2014; Firth et al., 2014; Huff et al., 2014; Lin et al., 2012; Malek & Budhwar, 2013; Templer et al., 2006), effective international leadership (Deng & Gibson, 2009; Groves & Feyerherm, 2011; Rockstuhl et al., 2011), performance in international settings (Ang et al., 2007; Bücker et al., 2014; Chen et al., 2011; Chen et al., 2010; Malek & Budhwar, 2013; Malik, Cooper-Thomas, & Zikic, 2014) and successful international negotiations (Imai & Gelfand, 2010). However, this is only part of the story. If we know a great deal about the fact that CQ is important for various outcomes, it becomes important to investigate if and how CQ can be developed. A recent shift in CQ research aims to address this topic. The present article offers a contribution to this scholarly conversation.

In particular, we investigate whether and how international experience can lead to CQ development. Literature focusing on this link has consistently relied on Earley and Ang’s (2003) conceptualization and intuitively anticipated a positive relationship between international experience and CQ. The results have been, however, inconsistent at best. When focusing on overall CQ, some scholars have reported positive results (Crowne, 2013; Eisenberg et al., 2013; Li et al., 2013; Shannon & Begley, 2008) while others have found an insignificant relationship between the two variables (Gupta, Singh, Jandhyala, & Bhatt, 2013; MacNab & Worthley, 2012; Şahin et al., 2014). Even greater variation is found when research investigates the relationships between international experience and the individual facets of CQ (Engle & Crowne, 2014; Li et al., 2013; Moon et al., 2012; Shannon & Begley, 2008; Tarique & Takeuchi, 2008; Tay, Westman, & Chia, 2008; Varela & Gatlin-Watts, 2014). Our critical review of this literature, presented later, identifies two possible reasons for these paradoxical

results – the lack of a clearly specified and well-utilized theoretical foundation and the superficial operationalization of international experience as a construct.

We argue for the appropriateness of Bandura's (1977) SLT to examine the link between international experience and CQ and to argue for more detailed measurements of the international experience construct. By doing this we contribute to the current research on CQ in two important ways.

First, based on the framework we propose, we explain how and why international experience is likely to lead to the development of CQ. CQ is a set of malleable capabilities theoretically developed and improved through exposure to other cultures (Earley & Ang, 2003; Thomas et al., 2008), but recent research has not offered thorough justifications for this proposition. In addition, no theory has been applied that specifies the boundary conditions within which we can expect changes in CQ to occur (Gregor, 2006). Furthermore, given the demonstrated importance of CQ to individuals during cross-cultural interactions and organizations with international operations, understanding how individuals develop this set of skills is not only necessary, but invaluable.

Second, we identify the need for investigations on the link between international experience and CQ to include more informative measures of the international experience construct. Our literature review documents that international experience is typically measured quantitatively, with little or no consideration for the quality of the experience. International experience is a multidimensional construct (Takeuchi et al., 2005), but inadequate metrics are often relied on to measure it that provides no qualifying criterion for study participants (Eisenberg et al., 2013). Finally, vast differences exist among international experiences. In some cases individuals have little or no interaction with natives of the country they visit, while in other cases individuals may have regular, purposeful and meaningful interactions. Thus the level of social involvement differs depending on the type of experience (Chang, Yuan, & Chuang, 2013). Understanding how quality impacts skill development is particularly important for organizations using international experiences or assignments for global leader development (Caligiuri, 2006; Hall, Zhu, & Yan, 2001).

The remainder of the article is structured as follows. In the next section we provide an overview of the constructs of international experience and CQ and critically examine literature that has investigated the link between them. This includes an analysis of how international experience has been operationalized, a comparison of the two main conceptualizations of CQ that have been proposed in the literature, and the identification of inconclusive results documented in existing studies. Next we discuss SLT and its central elements. On this basis

we present a theoretical framework utilizing SLT to explain why and how international experience could be an important way to develop CQ. We complement the proposed model with a set of theoretical propositions that unpack and detail the link. Finally, we discuss the implications of the suggested model.

3.2.2 What does the existing literature say about international experience, CQ, and the link between them?

3.2.2.1 International experience: Definitions and measurement

International experience refers to exposure to a foreign region including encounters with individuals of different cultures that are thought to help individuals become familiar with and develop an understanding of the norms, values, and beliefs of a different culture (Engle & Crowne, 2014). International experiences can range from short visits to other countries to long-term immersion experiences in a new host culture (Li et al., 2013). It is assumed that international experiences include meaningful interactions with natives of the foreign culture through which individuals develop accurate knowledge frameworks about another culture (Church, 1982; Earley & Ang, 2003; Thomas et al., 2008).

At the individual level, international experience is commonly included in models of sojourner and expatriate adjustment (Church, 1982; Lee & Sukoco, 2010; Moon et al., 2012; Selmer, 2002; Takeuchi et al., 2005). When individuals are exposed to other cultures, they gain important information about the culture and develop processes for coping with cultural differences and form accurate expectations of other cultures (Church, 1982). These past experiences, based on the notion of uncertainty reduction, are argued to assist the individual in adjusting – more international experiences result in better adjustment (Black et al., 1991). Empirical research has demonstrated that international experience eases culture shock and leads to better adjustment (Bhaskar-Shrinivas et al., 2005; Chen et al., 2011) and thus it is often used as a criterion for making selection decisions for international assignments (Caligiuri, Tarique, & Jacobs, 2009).

However, international experiences do not always have a positive influence and their impact on adjustment has been described as “substantially more complicated” than generally expected (Takeuchi et al., 2005, p. 96). For example, Selmer (2002) found that prior international experience only has an impact on some forms of adjustment and that previous experiences from the same country are the most influential on adjustment. In addition, the domain in which the experience takes place is argued to influence the amount of time and opportunities for interacting with locals, which then determines the likelihood of the international experience to

impact future adjustment (Moon et al., 2012). Lee and Sukoco (2010) have also demonstrated that previous international experience needs to be combined with high CQ in order to positively influence cultural adjustment and effectiveness. They found that individuals with low CQ and high numbers of international experiences reported a reduction in their level of adjustment and effectiveness. The authors explained that these individuals tended to see themselves as knowledgeable about cross-cultural interactions and are over-confident in their abilities because they had multiple previous international experiences, which led to lower levels of adjustment. Finally, international experiences can sometimes result in adverse consequences and encounters from behavioral trial-and-error and together with the social isolation experienced by some sojourners, may hinder cultural learning and instead reinforce stereotypes (Church, 1982).

Takeuchi et al. (2005) developed a framework to consider the multidimensional nature of the construct of international experience. They argued that one needs to consider the particular domain of the experience and differentiated between work and non-work related experiences. Work-related international experiences develop work-related knowledge and skills, limiting the influence of these experiences because the individual's primary attention is focused on this domain (Moon et al., 2012). Non-work related experiences, on the other hand, provide opportunities for interacting with natives, gaining culture-specific and culture-general knowledge, and for developing comprehensive cultural frames of reference (Moon et al., 2012; Takeuchi et al., 2005). Non-work related experiences include vacations, education abroad and language study (Crowne, 2008; Moon et al., 2012) whereas work-related experiences are international assignments and short business trips (Moon et al., 2012). Referring to Goodman et al. (2001), Takeuchi et al. (2005) recommend that when using international experience, it is also important to recognize the time dimension. International experience can refer to experiences that occurred in the past, experiences that are currently occurring, and/or experiences that will occur in the future, making it important to differentiate between them. Finally, when investigating past experience, Takeuchi et al. (2005) differentiated these experiences even further by identifying them as either country-specific or country-general. They found that when an individual had previous experience in a country similar to their current international assignments, individuals tended to report better adjustment while those with no similar country previous international experience reported weaker adjustment.

3.2.2.2 CQ: Two main conceptualizations

Drawing from distinctions made by Rohner's (1984) definitions of culture and society and including both emic and etic constructs, Earley and Ang (2003) developed the construct of

CQ. Etic aspects of the CQ construct include cognitive functions and the concept of self, while the emic aspects refer to the individual-level of the construct where context is important. Culture-general aspects, such as “memory and recall, logic and deduction, and categorization” are etic and culture-specific aspects such as “the specific type of logic and deduction used, categories formed, and so forth” are emic (Earley & Ang, 2003, p. 67). Given that these characteristics are developed based on each individual’s cultural influences, CQ reflects a quality that is universal while being unique to each individual (Earley & Ang, 2003). The facets of CQ relate to cognitive, affective, and behavioral aspects of intercultural effectiveness (Ang et al., 2007) where the cognitive facet represents cultural knowledge, the metacognitive is the processing of the knowledge, the motivational is the drive to use the knowledge, and the behavioral is the abilities to portray the knowledge.

In an effort to provide a more parsimonious definition of CQ, Thomas and Inkson (2004) and Thomas (2006) identified the need for a link between knowledge and behavior (the CQ facets) within the CQ construct. Building from the original definition, they also grounded their definition of CQ within the cognitive domain and included behavioral capabilities. Different from the previous conceptualization, they introduced the concept of mindfulness as the key component that allows individuals with cultural knowledge to determine appropriate behaviors to portray (Thomas, 2006). Later, Thomas et al. (2008) criticized Earley and Ang’s (2003) and Thomas and Inkson’s (2004) definitions stating that they “fall short of specifying the construct as more than a loosely aggregated set of facets conceptually similar to intercultural competency, global mindset or a host of other similar terms, or as an extension of constructs such as social intelligence to a new domain” (Thomas et al., 2008: 124). In addition, the previous conceptualizations, according to Thomas (2010), do not explain the relationship between the facets and the overall construct of CQ. As a result, the refined conceptualization of CQ includes three dimensions: cultural knowledge, cultural skills, and cultural metacognition. The cultural knowledge and cultural skills dimensions are developed through culture-specific experiences and education (Thomas et al., 2008). According to this conceptualization, when in a culturally diverse or unfamiliar context, an individual will use cultural metacognition to adjust and apply their developed knowledge and skills so that they are appropriate in the current context.

Important to Thomas et al.’s (2008) CQ construct is the difference between intelligence and culturally intelligent behavior. Intelligence is the knowledge and skills, but the mental processes used to apply the knowledge and skills an individual has are what leads to intelligent behavior. Intelligent behavior is portraying culturally appropriate knowledge and skills for the

specific context and it differs from one cultural context to another. However, the same mental processes are used to evaluate information and determine what behavior to portray in which cultural context; thus, according to Thomas et al. (2008) CQ captures the aspects of intelligence that are similar across all cultures, not the aspects that vary between them. These aspects are the etic processes for managing and guiding behavior or cultural metacognition, which are culture-general processes. Portraying culturally intelligent behavior is dependent on cultural metacognition, while the knowledge and skills an individual possesses are dependent on their experience within specific cultural contexts. Cultural metacognition links the facets, which results in CQ. According to Thomas et al. (2008), the interaction of the facets and the function of cultural metacognition is a distinguishing feature of this conceptualization from the original one proposed by Earley and Ang (2003).

There are some important similarities between the two conceptualizations of CQ; particularly when only referring to Earley and Ang's (2003) definition of the concept and not to how it was operationalized for the CQS, which measures the facets of CQ (Ang et al., 2007; Ang & Van Dyne, 2008). Earley and Ang's (2003) and Thomas et al.'s (2008) conceptualizations of CQ both focus on individual differences that can explain the effectiveness of some individuals in cultural situations above and beyond emotional and social intelligences (Earley & Peterson, 2004; Thomas, 2010). Furthermore, the necessity and importance of CQ to translate across multiple cultures is emphasized in both conceptualizations (Ang et al., 2007; Thomas, 2010) such that an individual can use the developed skill set in more than one culture. Finally, both conceptualizations are multidimensional and rely on knowledge, skills, and abilities that can be developed within an individual to enhance their adaptation and cultural interactions. Among the dimensions both include a knowledge based facet, a behavior based facet, and a higher-order knowledge processing facet.

There are two important differences between the conceptualizations. The first is that Earley and Ang (2003) treat CQ as an aggregate construct while Thomas et al. (2008) treat it as a latent construct. Thus when using the CQ construct within conceptual and empirical work Earley and Ang's (2003) construct is used when the interest is on the individual facets, while research interested in overall CQ uses Thomas et al.'s (2008) conceptualization. The second is the absence of a motivational facet within Thomas et al.'s (2008) conceptualization. Earley and Ang (2003) argue that without activation or drive, cognitive theories of intelligence are pointless. As a key facet of their construct, motivational CQ, allows information or facts about other cultures to become useful to the individual because the individual is motivated to use the information. They view motivation purely as a positive drive to use the knowledge an

individual has acquired, which will result in constructive interactions. Contrary to this view of motivation, Thomas et al. (2008) find that people can be negatively motivated to use their CQ and thus it does not contribute to being able to interact effectively, which is the outcome of having CQ. Therefore, they do not consider motivation as a requirement of CQ and exclude it as a facet from their conceptualization.

3.2.2.3 The link between international experience and CQ: Inconsistent findings in existing literature

In order to understand if and explain how international experience can lead to the development of CQ, we must first review the literature that has tested the relationship between these two variables. CQ is frequently stated to result from international experience or exposure to other cultures (Ang et al., 2007; Earley & Ang, 2003; Thomas, 2006; Thomas et al., 2008), so our aim was to identify empirical articles that have tested this hypothesis. We searched for and included articles where CQ was tested as a dependent variable or as a mediator between international experience and a dependent variable. We identified 16 empirical papers which we list in Table 3.1. Along with journal articles, we also included three chapters from the *Handbook of Cultural Intelligence: Theory, Management, and Applications* (2008) as this *Handbook* provided a comprehensive examination of the application of the concept and preceded much of the empirical CQ research. It should be noted that all papers, except the three *Handbook* chapters, were published between 2012 and 2014. This is not surprising given that CQ was only introduced in 2003 and that the original focus of the literature was on CQ as an independent variable. The overview presented in Table 3.1 includes the theory applied to explain the relationship between international experience and CQ (if any), the nature and the size of the samples, whether overall CQ was examined or a particular facet of it and the conclusions derived at by the authors.

Table 3.1 Summary of the 16 reviewed articles on the link between international experience and CQ including the authors, subjects and sample size, measurement of international experience, results and conclusions.

Theory	Author(s)	Subjects and Sample Size	Measurement of International Experience	Overall CQ	Cognitive CQ	Metacognitive CQ	Motivational CQ	Behavioral CQ	Conclusions
No Theory	Eisenberg et al. (2013)	U Students n = 284 G Students n = 150	Frequency (CQ as mediator)	-	U - $\beta = 0.16$ ($p < 0.01$) G - $\beta = 0.15$ (ns)*	U - $\beta = 0.18$ ($p < 0.01$) G - $\beta = 0.23$ ($p < 0.05$)	U - $\beta = 0.26$ ($p < 0.001$) G - $\beta = 0.21$ ($p < 0.05$)	U - $\beta = 0.09$ (ns) G - $\beta = 0.25$ ($p < 0.01$)	CQ is positively affected by international experience.
	Gupta et al. (2013)	Expatriates n = 223	Prior Experience	No relationship	-	-	-	-	Prior experience in other cultural contexts does not improve expatriates' understanding of other cultures.
	Morrell et al. (2013)	Students n = 293	Frequency	-	$\beta = 0.20$ ($p < 0.01$)	$\beta = 0.22$ ($p < 0.01$)	$\beta = 0.17$ ($p < 0.01$)	$\beta = 0.17$ ($p < 0.01$)	International experience positively predicts each facet of CQ.
	Shannon & Begley (2008)	Students n = 245	Frequency	Self-report $\beta = 0.19$ ($p < 0.01$) Peer-report $\beta = 0.16$ ($p < 0.01$)	$\beta = 0.09$ (ns)	$\beta = 0.15$ ($p < 0.05$)	$\beta = 0.26$ ($p < 0.001$)	$\beta = 0.10$ (ns)	International experience predicts overall CQ and was viewed positively for peer-rated CQ.
	Tay et al. (2008)	Business Travelers n = 491	Combination of Frequency and Length	-	$\beta = 0.13$ ($p < 0.001$)	$\beta = 0.04$ (ns)	$\beta = 0.06$ (ns)	$\beta = 0.04$ (ns)	Short-term international experience does not provide enough time to develop complex CQ capabilities.

Theory	Author(s)	Subjects and Sample Size	Measurement of International Experience	Overall CQ	Cognitive CQ	Metacognitive CQ	Motivational CQ	Behavioral CQ	Conclusions
SLT	Crowne (2013)	Students n = 485	Breadth Depth	B - $\beta = 0.32$ ($p < 0.00$) D - $\beta = 0.39$ ($p < 0.00$)	-	-	-	-	Number of countries (breadth) and type of experience (depth) together have a greater impact on CQ.
	Moon et al. (2012)	Expatriates n = 190	Frequency	-	N - $\beta = 0.27$ ($p < 0.01$) W - $\beta = 0.13$ (ns)*	N - $\beta = 0.29$ ($p < 0.01$) W - $\beta = 0.13$ (ns)*	N - $\beta = 0.39$ ($p < 0.01$) W - $\beta = 0.12$ (ns)	N - $\beta = 0.25$ ($p < 0.01$) W - $\beta = 0.11$ (ns)	Non-work international experiences are more important for developing expatriates' CQ than work-related.
	Remhof et al. (2013)	Students n = 518	Length (CQ as Mediator)	-	$\beta = 0.01$ ($p < 0.01$)	$\beta = 0.01$ ($p < 0.01$)	$\beta = 0.02$ ($p < 0.001$)	$\beta = 0.01$ ($p < 0.001$)	International experience and networks abroad have a positive effect on the four facets of CQ.
	Tarique & Takeuchi (2008)	Students n = 2012	Frequency Length	-	$\beta = 0.48$ ($p < 0.01$) $\beta = 0.11$ (ns)*	$\beta = 0.61$ ($p < 0.01$) $\beta = 0.07$ (ns)	$\beta = 0.53$ ($p < 0.01$) $\beta = 0.01$ (ns)	$\beta = 0.56$ ($p < 0.01$) $\beta = 0.01$ (ns)	Different modes of international experience are important for understanding its relationship with CQ.
	Li et al. (2013)	Students and Business Managers n = 294	Length	$\beta = 0.19$ ($p < 0.001$)	$\beta = 0.18$ ($p < 0.01$)	$\beta = 0.08$ (ns)	$\beta = 0.25$ ($p < 0.001$)	$\beta = 0.11$ (ns)	Divergent learning style strengthens the relationship between overseas experience and CQ development.
ELT	Varela & Gatlin-Watts (2014)	Students n = 84	Pre-test/Post-test (study abroad) Length	F = 6.66 ($p < 0.05$)	t = 5.25 ($p < 0.05$) $\beta = 0.005$ (ns)	t = 4.53 ($p < 0.05$) $\beta = 0.01$ ($p < 0.05$)	t = 1.64 (ns)	t = 1.22 (ns)	International experience primarily acts on the cognitive components of CQ.
	Wood & St. Peters (2014)	Students n = 42	Pre-test/Post-test (short-term study tour)	-	t = -3.68 ($p < 0.001$)	t = -3.78 ($p < 0.001$)	t = -2.15 ($p < 0.05$)	t = -2.15 (ns)*	Short-term study tours can be an effective way to increase CQ facets, but need to be organized tours with a structured design.

Theory	Author(s)	Subjects and Sample Size	Measurement of International Experience	Overall CQ	Cognitive CQ	Metacognitive CQ	Motivational CQ	Behavioral CQ	Conclusions
Contact Theory	Kim & Van Dyne (2012)	Working Adults n = 441 Observers n = 708	Frequency (CQ as mediator)	Self-Report $\beta = 0.29$ ($p < 0.001$) Observer-Report $\beta = 0.42$ ($p < 0.001$)	-	-	-	-	Prior intercultural contact is a valuable criterion for selecting and training future international leaders.
	Engle & Crowne (2014)	Students n = 135	Pre-test/Post-test (short-term study abroad)	-	$t = -8.841$ ($p = 0.00$)	$t = -6.551$ ($p = 0.00$)	$t = -4.229$ ($p = 0.00$)	$t = -7.051$ ($p = 0.00$)	Structured short-term international experiences impact CQ and increase each facet.
SLT and ELT	MacNab & Worthley (2012)	Managers and Students n = 370	Frequency	$\beta = 0.04$ (ns)	-	-	-	-	International travel experiences do not have a meaningful relationship with CQ development.
Situated Learning	Şahin et al. (2013)	Deployed Military n = 112	Pre-test/Post-test (six-months international assignment)	Main effect of prior international experience on CQ (ns)	$F = 35.48$ ($p < 0.01$)	$F = 36.16$ ($p < 0.01$)	$F = 6.30$ ($p < 0.05$)	$F = 54.13$ ($p < 0.01$)	International assignments have a significant positive effect on the development of all four facets of CQ.

* Reported as non-significant because $p < 0.10$

Note: SLT: Social Learning Theory; ELT: Experiential Learning Theory; U: Undergraduate; G: Graduate; B: Breadth; D: Depth; W: Work; N: Non-work; “-”: Not reported

As shown through Table 3.1, international experience has most commonly been assessed by measuring either the frequency (number of times abroad or countries visited) or length of international experiences. To measure CQ, all studies used Earley and Ang's (2003) conceptualization and items from the CQS (Ang et al., 2007). It is worth noting that the number of scale items that scholars included in their respective studies ranged from eight items to the full 20. Depending on the aims of the respective research, some papers reported on overall CQ, others on individual facets, and yet others on both. All tested hypotheses, with no exception, stated that previous international experience would have a positive and significant predictive relationship with CQ. Furthermore, the study participants were mostly students and included multiple nationalities (see Table 3.1). Finally, the sample size ranged from 42 to 2012.

Despite the intuitiveness to expect a positive relationship between international experience and CQ, the evidence provided by existing studies is inconclusive. Across the 16 studies there is significant variation among the reported results, but we highlight a few important observations here.

First, the majority of studies reported a positive and significant relationship between overall CQ and international experience (Crowne, 2013; Kim & Van Dyne, 2012; Li et al., 2013; Shannon & Begley, 2008; Varela & Gatlin-Watts, 2014). In contrast, Gupta et al. (2013) and MacNab and Worthley (2012) concluded that there was no relationship between the variables and Şahin et al. (2013) found that the main effect of prior international experience on overall CQ was insignificant.

Second, when frequency was used to measure the international experience variable, metacognitive and motivational CQ were most commonly found to be impacted (Eisenberg et al., 2013; Morrell et al., 2013; Shannon & Begley, 2008; Tarique & Takeuchi, 2008) and when it was measured by length, the most commonly predicted facets were the cognitive and motivational ones (Li et al., 2013; Remhof et al., 2013). However, Tarique and Takeuchi (2008) measured both frequency and length of non-work international experience and reported that all four facets were predicted by frequency but none of the facets were predicted by length. In addition, they reported that frequency has a greater effect on the metacognitive and motivational CQ facets when individuals reported shorter lengths of international experiences and a weaker effect when they had longer experiences.

Third, a few studies used a pre-/post-test design to investigate the relationship between the variables. Among this group of studies, all but one reported that the four facets of CQ significantly increase as a result of international experience (Engle & Crowne, 2014; Kim &

Van Dyne, 2012; Şahin et al., 2013). The exception is the study by Varela and Gatlin-Watts (2014) who found that only the cognitive and metacognitive facets increased and that only metacognitive CQ had a predictive relationship with international experience.

Fourth, different from other studies, Moon et al. (2012) decomposed international experience into work and non-work related components according to Takeuchi et al.'s (2005) framework and concluded that only non-work international experiences influence the development of CQ because work-related experiences do not provide opportunities to develop an understanding of other cultures.

Lastly, while some scholars collected data from expatriates (Gupta et al., 2013), business travelers (Tay et al., 2008), and military personnel (Şahin et al., 2013), most researchers used student-recruited samples. This is not surprising, bearing in mind that such samples are preferred because of their accessibility, convenience and low cost as well as because of students' higher receptivity of complex designs (Bello, Leung, Radebaugh, Tung, & van Witteloostuijn, 2009). In addition, the studies by Kim and Van Dyne (2012) and Shannon and Begley (2008) were the only ones to use multisource CQ data, measuring both self-reported and peer-reported CQ. The heavy reliance on student participants and self-reported CQ data across the studies are issues to which we return when we discuss potential future research directions.

The significant differences among the studies investigating the impact of international experience on CQ has also led to conflicting conclusions and contradictory recommendations. For example, Gupta et al. (2013) concluded that prior experience in other cultural contexts does not improve understanding of other cultures and therefore should not be used as a development tool, while Kim and Van Dyne (2012) determined that prior intercultural contact is a valuable criterion and recommend it be used for selecting and training future international leaders. Furthermore, Tay et al. (2008) argued that short-term international experiences do not provide enough time to develop complex CQ capabilities. However, Engle and Crowne (2014) suggested short-term international experiences as a way to increase each facet of CQ and Tarique and Takeuchi (2008) found that shorter experiences were better predictors of some CQ facets. Wood and St. Peters (2014) recommended that when using short-term international experiences as development tools, the key is that they are organized and structured.

We put forward two possible reasons for the variation in the results of the studies presented in Table 3.1. One of them is the absence of a theoretical foundation to explain how international experience could lead to the development of CQ. The second is the rather simplistic operationalization of international experience. We elaborate on these two issues next.

At the simplest level, theory is a linguistic device that researchers use to imply that there is reason and organization within their complex empirical work (Bacharach, 1989). While previous research is necessary in order to examine any research problem, it does not provide theoretical arguments to explain *why* certain structures, events, acts, thoughts or other outcomes occur or not (Sutton & Straw, 1995) and how the variables and constructs are related (Sutton & Straw, 1995; Thomas et al., 2011). Finally, it is the theory that provides the set of boundary assumptions and constraints under which this is possible (Bacharach, 1989).

The need for theoretical grounding to “unravel the inconsistencies” in the current empirical results regarding CQ has been previously concluded in reviews by Ang et al. (2011, p. 591) and Ng et al. (2012), but remains largely missing from the analysis in most of the studies on the link between international experience and CQ. Within the 16 papers presented in Table 3.1, five do not mention theory at all. Of the remaining 11 papers, two argue for contact theory as an explanation for the expected relationships between the variables; four suggest but do not utilize SLT as a tool for finding an explanation; and three base their expectations on experiential learning theory. For example, Li et al. (2013) systematically incorporate experiential learning theory in their argument by including learning style as a moderator of the relationship between international experience and CQ. Finally, MacNab and Worthley (2012) mention both SLT and experiential learning theory as reasoning for the relationships they examine and Şahin et al. (2013) rely on situated learning theory.

To systematically understand the conditions that cause international experience to be effective or ineffective for developing an individual’s CQ, the quality of international experiences must be included in its operationalization. Consider the theories that have been referred to in some of the 16 papers presented in Table 3.1. Each of them posits that there needs to be in-depth interaction between an individual and the environment before learning can take place. Simply being in a foreign culture, regardless of the length of time there, does not imply that an individual is actively involved in that culture. International experiences cannot be treated as equal and these experiences need to be substantial enough to bring about change in an individual (Ang et al., 2011). An individual cannot simply learn by being placed in a foreign country; they must observe what natives of the foreign culture do, consider their own abilities, and make attempts to re-enact the behaviors they observe. Consequently, they either succeed or fail in developing schemas of accurate behavior. Thus, the nature and quality of international experience and exposure to other cultures may be more important than the quantitative amount of the experience (Church, 1982). We agree with Blasco et al. (2012, p. 239) who argue that short periods of time or “cultural crash courses designed to teach

participants to navigate around potential cultural conflicts” are not effective in developing CQ, but instead abilities are acquired through intercultural interactions and experience. Eisenberg et al. (2013, p. 608) reasoned that “inadequate metrics for assessing international experience” have caused inconsistencies in previous research, highlighting a lack of rigor in the operationalization of international experience. They operationalized international experience as “the number of countries where students lived for at least 6 months” (Eisenberg et al., 2013, p. 608). Conducting empirical research that follows this direction will allow for more accurate predictions about the link between international experience and CQ. CQ, in this case, is a learning outcome or as a skill developed through international experience. To examine this relationship in greater detail, it is meaningful and justifiable to utilize a learning theory. We attend to this next.

3.2.3 SLT as a device for explaining the link between international experience and CQ development

Bandura’s (1977) SLT is a comprehensive theory that includes continuous and reciprocal interactions among cognitive, behavioral and environmental determinants (Davis & Luthans, 1980). As we pointed out earlier, CQ is conceptualized as a state-like construct consisting of a set of malleable capabilities that can be influenced by exposure to foreign cultures and thus susceptible to development (Thomas et al., 2008). “[The] acquisition of CQ involves learning from social interactions” (Thomas, 2006, p. 89), meaning, it requires time. Therefore, dramatic increases in CQ cannot be expected from brief international experiences. Thus, SLT (Bandura, 1977) is a powerful tool that, we suggest, can be used to explain why and how international experience leads to CQ development. This theory is comprehensive and has a specific focus on social learning where the person, the behaviors and the environment have equal importance.

Based on the differences between the two conceptualizations of CQ previously discussed, we use Thomas et al.’s (2008) conceptualization of CQ within the remainder of the paper and as such all references to CQ refer to the construct the way it is treated by them. In order for CQ to result in constructive and effective cultural interactions, an individual needs all the facets. Thus discussing the development of single facets in isolation would not be productive to understanding how an individual can develop overall CQ. Therefore, through the processes encompassed in SLT, an individual develops overall CQ as opposed to individual CQ facets.

3.2.3.1 SLT and its central elements

In the areas of training and development, SLT has been used to examine a variety of skills (Latham & Saari, 1979; Frayne & Latham, 1987; Black & Mendenhall, 1990) and has been

demonstrated to be more effective in explaining skill development than other approaches such as experiential learning (McEvoy, 1998). In addition, various components of SLT have been applied within the area of human resource development (see Gibson, 2004 for a review). Most notably, Black and Mendenhall (1990) developed a theoretical framework for explaining and evaluating the effectiveness of cross-cultural training programs for expatriates. They proposed that modeling could be used, according to SLT, to train individuals and could then positively impact performance and cross-cultural adjustment. Black and Mendenhall (1990) stated:

Cross-cultural adjustment involves the knowledge of which behaviors to execute or suppress in given situations and the ability to effectively actualize this understanding. Cross-cultural training can provide models of appropriate and inappropriate behavior in general or specific, hypothetical or simulated situations; it can provide information from which trainees can imagine appropriate and inappropriate behavior and associated consequences; it can increase individuals' efficacy and outcome expectations; and it can facilitate symbolic and/or participative rehearsals of the modeled behaviors. (p. 124)

Using processes similar to those of individual learning explained by Black and Mendenhall (1990) lends itself to the investigation of how international experience can influence the development of CQ.

Bandura (1977) emphasized that “virtually all learning phenomena resulting from direct experience occur on a vicarious basis by observing other people's behavior and its consequences for them (p. 12)” These consequences are used to inform, motivate, and reinforce the individual's behavior in the future. Being a part of the learning environment, paying attention to the behavior of natives, seeing the consequences, committing them to memory, having the opportunity to reproduce behaviors, and experiencing the consequences personally leads to the development of new (models for) behavior. As a result, individuals develop CQ through the construction of appropriate schema, which are stored and used during future interactions.

SLT postulates that learning is governed by four central elements: attention, retention, reproduction, and motivation/incentive processes (Bandura, 1977; Black & Mendenhall, 1990). The attentional processes are used to determine what is observed and what is extracted from exposure (Bandura, 1977). In order for an individual to give attention to behaviors being portrayed around them, they must first notice the behavior. People pay attention because of associational patterns (people that they are exposed to most frequently), functional value, interpersonal attraction, and behaviors that are intrinsically rewarding. In addition, individuals

look for models who are similar or enact behaviors that are important to them. Thus, similarity of characteristics and other social factors affect the association preferences and determine the models who will be observed and the behaviors that will be learned (Black & Mendenhall, 1990). Individuals pay attention to their new cultural environment in order to learn essential tasks, such as getting bread from a bakery, and more optional tasks, such as learning a proper greeting for the culture they are now a part of.

Through the retention processes the modeled behavior is coded into memory as easily remembered schemas in symbolic form for later use through response retrieval and reproduction, which involves imaginal and verbal systems (Bandura, 1969). The coded images are obtained when the individual is exposed to members of the culture portraying appropriate and culturally accepted behaviors. Observed models' physical behaviors are associated with corresponding sensory conditioning and are stored as retrievable images of sequences of behavior and in the future they can be evoked even when the individual is no longer in the presence of the modeled behavior (Black & Mendenhall, 1990). Verbal cognitive processes mostly regulate behavior; an individual will code modeled sequences into readily utilizable verbal symbols and control future behavior with verbal self-direction. The retention is secured through symbolic coding operations and individuals use rehearsal of the behavior both through mental rehearsal and repeated modeling to retain the information. The level of learning is enhanced through practice or rehearsal of modeled response sequences (Bandura, 1969).

Reproduction processes involve the utilization of symbolic representations and converting the schema into appropriate action through both cognitive level formation (mental rehearsing) and self-corrective adjustment of the behavior (Black & Mendenhall, 1990). Referring to the schemas provides a basis for self-instruction where new patterns of behavior are developed through the combination and sequencing of the schemas as representational guides. Even in the absence of stimuli, such as direction or enactment of behavior, the individual is able to portray reproduced behaviors (Bandura, 1969). As individuals attempt to reproduce the behavior, they refer to their memory and take corrective actions as necessary. However, the accurate retention of the modeled behaviors, the quality of observations, and physical limitations can inhibit the reproduction of behaviors. Therefore, participative reproduction, which allows the individual to practice the behavior in an appropriate setting and experience the consequences of the reproduced behavior, is most effective for learning (Bandura, 1977).

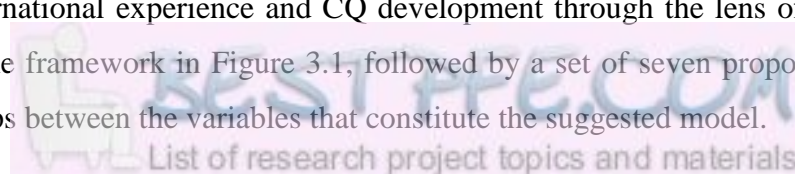
The incentives (consequences) an individual experiences and their motivation shape what they learn and their future behaviors in similar situations (Black & Mendenhall, 1990). The perception of positive incentives will transform learned behaviors into actions. Bandura (1977)

emphasized the importance of both observed and experienced consequences in influencing what behavior is repeated as opposed to what is learned. Consequences can be experienced externally, vicariously, or are self-generated through self-reward or punishment. The schemas that result from the consequences of the learned behavior are then used when replicating the behavior and determine the actions of the individual. Therefore, an individual may learn multiple behaviors but only those that are reinforced with positive consequences will be reproduced (Bandura, 1977). Considering that CQ requires individuals to develop cognitive maps in order to determine and display their appropriate learned behavior, incentives play an important role in the development of CQ. Incentives are influential at all stages of learning where attention, retention, and reproduction are reciprocal processes that are constantly ongoing and being influenced by incentives/consequences. Thus incentives/consequences influence the extent to which individuals attend to, rehearse and retain observed behaviors, which determine what behaviors are actually executed (Black & Mendenhall, 1990).

Finally, Bandura (1977) highlighted the importance of the motivational processes because even if an individual pays attention, retains the information, and can reproduce it, he/she will not do so if they are not motivated. Bandura (1977) distinguished two types of expectancies, efficacy expectations and outcome expectations, which are related to motivational processes. Self-efficacy is a person's belief in their ability to execute a specific behavior (Bandura, 1977b). Individuals with higher levels of self-efficacy are more willing to imitate behaviors and persist at perfecting their imitation of behaviors. Self-efficacy is increased through past experience, vicarious experience, and verbal persuasion (Black & Mendenhall, 1990). Outcome expectations are similar to self-efficacy, however they refer to an individual's belief that certain behaviors will lead to the desired outcomes. According to Bandura (1977) incentives/consequences, efficacy expectations, and outcome expectations together determine what learned behaviors the individual enacts.

3.2.3.2 Linking international experience and CQ: A SLT framework

The review of literature on the link between international experience and CQ indicated that variation in the results stems from the lack of a theoretical framework to systematically understand the conditions that cause international experience to be effective or ineffective in developing CQ. In the previous sections we discussed international experience, CQ and the central elements of SLT. We are now in a position to introduce a framework that examines the relationship between international experience and CQ development through the lens of SLT. We graphically present the framework in Figure 3.1, followed by a set of seven propositions devoted to the relationships between the variables that constitute the suggested model.



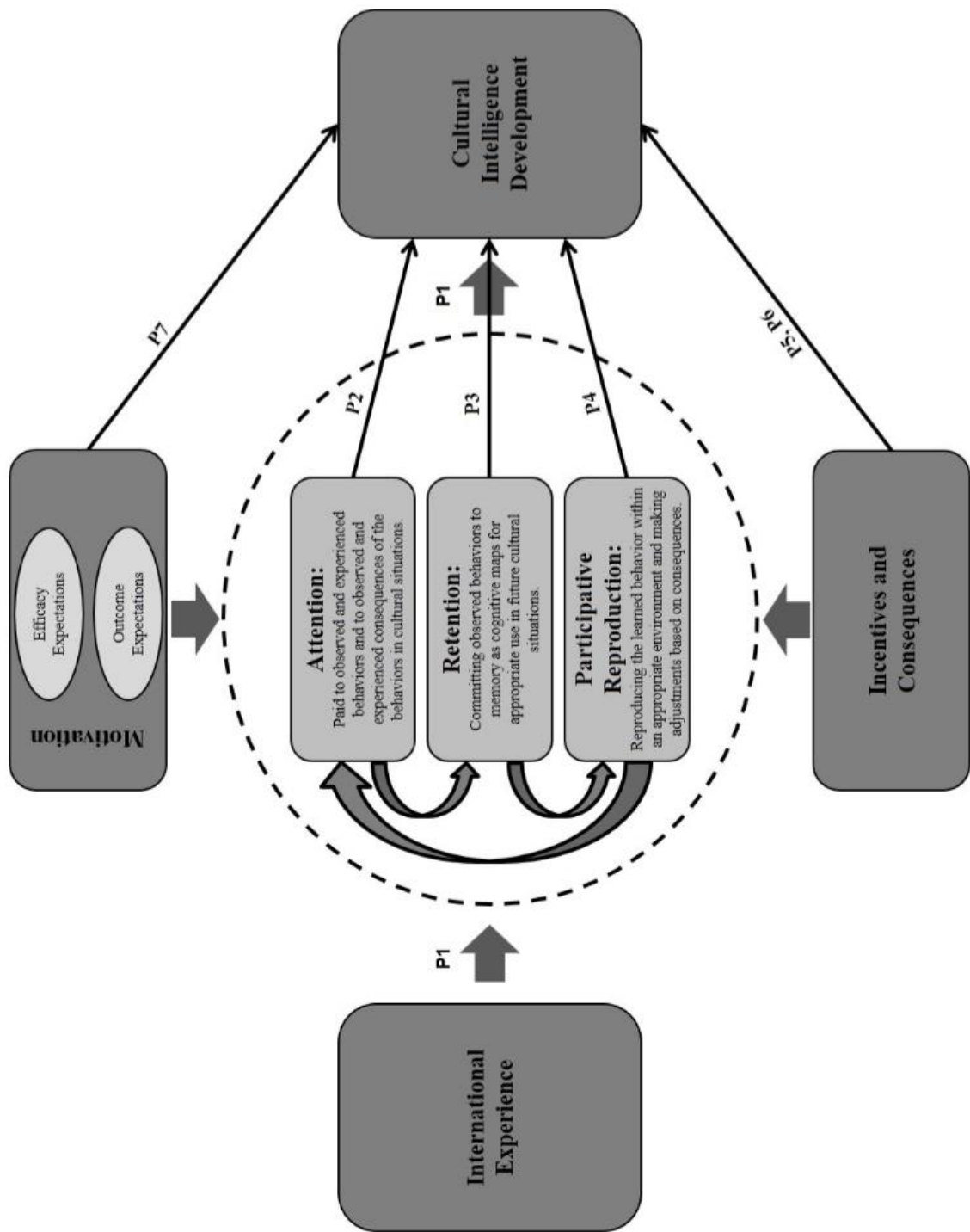


Figure 3.1 The link between international experience and CQ development seen through the lens of SLT.

International experience leading to CQ development. SLT recognizes the importance of cognitive, behavioral and environmental determinants in the development of new behavior (Davis & Luthans, 1980). Emphasizing the role of both cognitive processes and consequences in learning, SLT highlights the importance of vicarious learning – it is through models in the environment that individuals develop frameworks of behavior (Manz & Sims, 1981). Then through processes of reproduction and the influences of motivation and incentives/consequences these frameworks are fine-tuned so the individual is able to interact effectively in future cultural situations.

According to SLT the person and their environment are not independent from each other; they influence each other through continuous and reciprocal interactions (Davis & Luthans, 1980). Thus, when individuals are able to observe the behaviors of natives in their natural environment and experience the consequences of the observed behaviors while in the environment through the processes of reproduction, learning will take place. In the context of our analysis international experience implies that an individual will be an active member within a different culture, which includes giving attention to differences within the environment while also appreciating those differences (Thomas, 2006). Through these experiences, individuals develop comprehensive cognitive maps that provide sets of cognition about appropriate social behavior (Takeuchi et al., 2005). Once an individual experiences and observes a behavior, he/she will use cognitive processes to transfer experiences into knowledge and skills and store this information for future use. Stored information allows individuals to use symbols to anticipate behaviors and associated consequences enabling them to determine their behavior before a situation occurs. This anticipatory action for future interactions is the central premise of SLT (Bandura, 1977).

CQ is made up of culture-specific knowledge and skills, which are applicable in other cultures through the processes of cultural metacognition. During an international experience individuals develop culture-specific information, but they also develop abilities to deal with being in other cultures and to cope with the stresses associated with being in a new and different environment. An international experience helps to facilitate an individual's understanding of what it means to be in another culture thorough generalization effects or non-culture specific learning (Bell & Harrison, 1996). Through international experiences individuals develop the processes of “learning to learn another culture” (Bell & Harrison, 1996, p. 53) and it is these processes that can be generalized to other cultural experiences as cultural metacognition.

Empirical research tends to confirm that a positive relationship exists between international experience and the development of some or all facets of CQ, but the significance of the results has not been consistent. SLT explains the relationship between the variables: it is through social learning processes that CQ development can result from international experience. In other words:

Proposition 1: International experience leads to CQ development through social learning processes.

CQ development as a result of attention processes. One-way individuals learn the behaviors, customs, and cultural norms important for living and working in a different country is by observing the behaviors of natives in the foreign culture. Associational preferences will determine what types of behaviors are frequently observed and those that are learned most thoroughly (Bandura, 1971). Individuals will attend to natives in the cultural environment that have similar characteristics and portray behavior they want to imitate. Expatriates, for example, will pay attention to other business professionals in the location of their international assignment. Observation of natives' behavior during an international experience will be driven by interpersonal attraction to the models and those with similar characteristics. Models who portray vital information will also gain the attention of observers, influencing and filtering who is observed and who is ignored. Model attraction and the value of the portrayed behaviors will impact the development of CQ. The knowledge and skills dimensions of CQ are developed when individuals gain information about cultures (both similarities and differences) and learn the capabilities to exhibit appropriate verbal and nonverbal behaviors (Thomas et al., 2008) through the attention processes that SLT puts forward. On the basis of these observations we advance the following proposition:

Proposition 2: Individuals who observe natives engaging in activities of significant importance to them while in the foreign country will develop CQ.

Retention processes resulting in CQ development. In order for individuals to be influenced by observed behaviors, they must remember what was observed. Furthermore, in order to reproduce behaviors when the model is no longer present, the behavior must be represented in their memory in a symbolic form (Bandura, 1971). Bandura (1977) emphasized that learning can take place entirely through symbolic modeling, meaning an individual can observe behavior and mentally rehearse the behavior. Through the retention processes individuals use symbolic coding to develop images or verbal direction allowing them to mentally and cognitively rehearse behaviors and adjust those behaviors based on consequences they have observed or experienced. Individuals also create consequences for themselves, which are used

to self-regulate their behaviors (Davis & Luthans, 1980). In this way, rehearsal serves as a memory aid and rehearsed behaviors are unlikely to be forgotten (Bandura, 1971). Rehearsal refines and reinforces developed schemas and then facilitates the reproduction of the behavior for future interactions. Through retention processes individuals rely on their cultural knowledge and skills and develop their cultural metacognition by consciously questioning their cultural assumptions, reflecting during interactions and adjusting their cultural knowledge during interactions and while rehearsing (Thomas, 2006). Hence, it is plausible to put forward the following proposition:

Proposition 3: Individuals who reflect on observed and reproduced foreign behaviors through cognitive rehearsal will develop CQ.

Reproduction processes leading to CQ development. The reproduction processes allow an individual to perform learned behaviors in actual situations where symbolic representations will guide overt actions (Bandura, 1971). Bandura (1971) emphasized that acquiring required skills determines the amount of observational learning that an individual will exhibit behaviorally. However, in the case of extensive deficits in ability, skills can be developed through rehearsal and practice. Learning essential information is also strengthened by direct experience in the learning environment where an individual can reproduce behaviors. Although learning can take place entirely through symbolic modeling, participative reproduction is more effective because it allows the learner to practice the behavior, receive feedback, and make adjustments (Bandura, 1977). This is particularly important when applying SLT to developing CQ from international experience: being in a foreign country provides the opportunity to reproduce the observed behaviors and perfect them through practice in an environment where the behavior is necessary. It is only by being in the appropriate environment that an individual can develop these culture specific knowledge and skills based on positive or negative consequences they experience. Based on these arguments we offer the following proposition:

Proposition 4: Individuals who engage in participative reproduction of rehearsed and retained behaviors during an international experience will develop CQ.

CQ development as a consequence of incentives and motivational processes. According to SLT, incentives and motivational processes significantly influence attention, retention, and reproduction of behavior. Even if an individual acquires, retains, and has the capabilities to skillfully execute modeled behaviors, learning will not be activated into explicit performance if it is unfavorably sanctioned or negatively received (Bandura, 1971). When provided positive incentives, previously unexpressed learned behaviors are translated into action. Individuals

have to be motivated to learn from their environment and based on the incentives for learning behaviors and consequences they experience or observe, cognitive maps are developed. In addition, having self-expectancies and outcome expectancies provides motivation to rehearse behaviors in the learning environment as participative reproduction. Therefore, we propose that incentives and experienced consequences, and self-efficacy and outcome expectations influence the development of CQ:

Proposition 5: During an international experience individuals who are given incentives to portray learned behaviors will, through the processes of attention, retention and reproduction, develop CQ.

Proposition 6: During an international experience individuals who experience positive reinforcement will develop appropriate cognitive maps and individuals who experience negative consequences will adjust their behaviors developing more appropriate cognitive maps, leading to the development of CQ.

Proposition 7: The higher an individual's self-efficacy and outcome expectations, the more likely they are to reproduce the learned behavior during an international experience and develop CQ.

3.2.4 Discussion and directions for future research

The main purpose of this paper was to propose a theoretically grounded framework that can explain why and how CQ is developed from international experience. We began by reviewing literature that investigates the link between these two constructs. Our systematic analysis of this literature revealed inconclusive and inconsistent findings that, we argue, result from the lack of theory being used to explain the link. As Cropanzano (2009, p. 1305) stated “[i]f there are few theory articles, but a lot of empirical ones, then the area could use some additional synthesis.” We addressed this need for synthesis and “theoretical refinement” (Ang et al., 2011, p. 591) and argued that SLT is an appropriate and powerful theory to understand how and why international experience leads to the development of CQ. We discussed international experience, CQ and the central elements of SLT, introduced a theoretical framework, depicted in a model, and complemented it with a set of theoretical propositions.

The model we have proposed positions CQ and its development as the dependent variable. As we argued in the beginning, most existing studies on CQ have examined it as an antecedent to various outcomes. While substantive theoretical and empirical knowledge has been generated to understand CQ as an antecedent, we seem to need considerably more insights into what

actually leads to CQ. In other words, how can CQ be developed and nurtured? What are important variables to consider when trying to understand how and under what circumstances CQ comes to exist? The model we have put forward is an attempt to position CQ as an outcome rather than a precursor.

In relation to this, we have theorized about how international experience in particular can lead to the development of CQ. The choice of this particular independent variable was motivated by the fact that earlier studies that have examined the link, came to inconsistent (and sometimes contradictory) findings. This may well be due to a lack of solid theoretical grounding. We have tried to counter-balance this weakness by advocating for the appropriateness of SLT to understand the link in more nuances. We have unpacked the key components of SLT to establish a much more detailed set of links between international experience and CQ development. In particular, we proposed how attention, retention and participative reproduction as processes embedded in an international experience can lead to CQ development. Similarly, we have developed propositions regarding how motivation processes (efficacy expectations and outcome expectations in particular) and incentives and consequences influence CQ development. This is a considerably more fine-grained approach to investigating the link between international experience and CQ development than the overall and general one that has so far been put forward in the existing literature.

We have also put forward the argument that when operationalizing international experience, the quality of these experiences must be incorporated. By utilizing SLT and through the propositions we have developed, we demonstrate that interaction with the cultural environment is important for determining the influence of international experience on learning outcomes such as CQ. Asking specific questions aimed at understanding cultural interaction and reflection during an individual's international experience can do this. Furthermore, whom an individual interacts with is important to their CQ development and should be included in future studies.

A natural progression of this work is to empirically test the propositions we put forward and validate or reject the model. Given the focus of our model on gaining a deeper understanding of what takes place during an international experience, we suggest a focus on unpacking this construct as a first step. We recommend first identifying international experiences that can be examined in more detail and then employing targeted questions that assess whom individuals pay attention to, how they reflect on and rehearse newly observed behaviors, and what resulting types of interactions took place between them and the environment. Furthermore, investigations that include the influence of motivation processes and consequences and

incentives on the development of CQ are also necessary to completely test the model and gain a more comprehensive understanding of how CQ learning takes place.

We have pointed out that previous studies have relied continuously and heavily on self-reported measures. This is not ideal. While not all constructs assessed via self-reports are subject to social desirability (Moorman & Podsakoff, 1992), they are likely to be subject to some sorts of biases and errors associated with that method (Spector, 2006). In relation to CQ in particular, Lee and Templer (2003) argued that its assessment must involve looking at different data sources because “[t]he mind of a human being is such a complex entity that it is impossible for us to imagine any effective assessment that does not involve the use of multiple data sources and multiple methods” (p. 208). We agree with them and recommend that researchers use both self- and peer-reported data when testing the framework we propose. Methods similar to those adopted by Kim and Van Dyne (2012) and Shannon and Begley (2008) will not only remedy problems with common source bias, but will also respond to criticisms of whether individuals can accurately report on their own cognitive processes (Blasco et al., 2012; Thomas, 2010).

Our review also highlighted the predominance of student-recruited samples in empirical papers that have investigated the relationship between international experience and CQ development. Indeed, relying on such samples is often appropriate and the work by Eisenberg et al. (2013) and Varela and Gatlin-Watts (2014) provide good examples. A note of caution may be appropriate though. As pointed out by Sears (1986: 515), students (especially undergraduates), in comparison with more mature adults, may “have less crystallized attitudes, less-formulated senses of self, stronger cognitive skills, stronger tendencies to comply with authority, and more unstable peer group relationships”. Two studies included in Table 3.1 that did not use student participants reported results that differ from those based on student samples – both Gupta et al. (2013) who surveyed expatriates and Şahin et al. (2013) whose sample consisted of military personnel found an insignificant relationship between international experience and CQ. Along similar lines, Tay et al. (2008) surveyed business travelers and found that only cognitive CQ results from international experiences. We suggest that research that includes diverse samples will provide important insights regarding CQ development. This is not a radically new idea; four papers that are included in our review and that are based on student samples specifically point out the sample type as a limitation (Crowne, 2013; Engle & Crowne, 2014; Remhof et al., 2013; Wood & St. Peters, 2014) and call for additional research that uses other types of samples in order not to compromise generalizability. Different types of samples, we argue, are likely to highlight for instance

different types of barriers that come to exist when individuals are unwilling to go through the learning processes encapsulated in the framework we propose. And no matter what samples are used, there is a need to clearly state the rationale for using the particular sampling methods and for a detailed description of the sample frame (Wheeler, Shanine, Leon, & Whitman, 2014); otherwise generalizability and external validity are compromised (Bello et al., 2009). What is needed is a serious consideration of how the nature of the sample moderates or limits the study findings.

3.2.5 Practical implications

There are some important practical implications to be drawn from our study, which are particularly relevant to expatriates, international human resource managers and cross-cultural training programs initiated and carried out in organizations. The proposed model sheds light on the critical importance of interaction between an individual and a foreign environment in order to develop CQ. Although being in an appropriate learning environment is a necessary condition for skill development, the individual must also go through the processes of attention, retention and reproduction in order to learn new information and behaviors.

Knowing how one can develop one's CQ is important for expatriates' job performance (Ang et al., 2007; Bückner et al., 2014; Chen et al., 2011; Chen et al., 2010; Malek & Budhwar, 2013). Their ability to adjust and adapt to new and changing cultural environments is essential to their international assignment success (Johnson et al., 2006). Understanding that they need to: take advantage of opportunities to interact, pay attention to appropriate models within the foreign culture, take time to reflect on what they observe and make attempts to reproduce behaviors, empowers them to control the outcomes of their international experiences.

Expatriate selection is an essential function of international human resource. International human resource managers who are tasked with making selection decisions for international assignments may use previous international experience as a criterion for making such decisions (Harvey & Moeller, 2009; Haslberger & Stroh, 1992). Assuming that any previous experience is an indicator of CQ, a set of skills demonstrated to increase international assignment success, however, may lead to inappropriate selection decisions. Understanding what and how previous experiences of potential expatriates are beneficial to their development of CQ allows for better expatriate selection decisions and for international experience to be used as a selection criterion. Our model provides more information about what types of international experiences are more effective in the development of skills such as CQ. Furthermore, our model highlights that more than time and the number of experiences needs to

be considered when determining the effectiveness of previous international experience in developing skills. The attention, retention and reproduction of observed behaviors as well as the experience of consequences when reproducing the behavior are important conditions within which skill development occurs.

Another important practical implication is the use of the model in planning cross-cultural training through international assignments within organizations. To develop CQ and other intercultural skills within individuals some organizations rely on immersion programs or intensive cultural experiences as ways to develop future global leaders (Caligiuri, 2006). These programs include sending employees to foreign countries where they are expected to interact extensively with local individuals or programs where individuals take one to two year short-term jobs within multiple foreign countries to gain exposure to working in different countries. It has been suggested that through these training programs individuals might gain some skills necessary to manage within diverse environments, which enhance their expertise in the domestic and international contexts (Caligiuri & DiSanto, 2001). However, using the framework presented here, provides important information about how these assignments should be conducted and the role of attention, retention and reproduction processes in the development of CQ.

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3.3 Conclusions

Theory provides justification for why variables or constructs are related, and further rationalizes how they are connected. Through the application of theory hypotheses can be developed and subsequently, be tested. This chapter drew from the results of the review of the CQ literature and analyzed research that has focused specifically on the link between international experience and CQ. This analysis demonstrated that, although intuitively they appear to be linked, the relationship between the two constructs is not yet understood. I argued that the lack of a theoretical foundation to explain and inform scholarly work, and the absence of investigations that consider the quality of international experiences are two reasons for the inconsistent results within existing literature. To address these theoretical and methodological weaknesses, I proposed a theoretically grounded framework utilizing SLT (Bandura, 1977), which explains the link between international experience and CQ. I discussed the central elements of SLT (Bandura, 1977), and in addition, I put-forth seven testable propositions for future research. Chapter 4 discusses a specific type of international experience that can be unpacked to consider its quality and allows for a detailed examination of its relationship with CQ. The chapter also presents my conceptual model and discusses the development of my hypotheses.

Chapter 4. STUDY ABROAD AND CQ: A MODEL AND HYPOTHESES

4.1 Introduction

In the previous chapter I investigated the link between international experience and CQ, and evidenced that it is not well understood. In addition, I recommended that in order to gain a clearer understanding of the link, it is necessary to examine international experience in far greater detail than has been done previously. Consequently, I treat study abroad as a type of non-work international experience to conduct a more detailed examination of its relationship with CQ.

In this chapter, I analyze why study abroad can be treated as an illuminating and relevant type of non-work international experience. I first detail the history of study abroad, describe different types of study abroad programs available, and explain how study abroad is used within the context of this research. Then, I discuss how utilizing a classification system of study abroad program components (Engle & Engle, 2003) provides a framework to unpack study abroad experiences and investigate their relationship with CQ. Last, I present my conceptual model and develop five hypotheses, which are grounded in a SLT theoretical lens and positioned in relation to related literature (Sparrowe & Mayer, 2011), for testing.

4.2 Study abroad

Business schools within institutions of higher education must have internationalized curriculum in order to equip their graduates with the necessary skills to compete in the global marketplace. Accrediting agencies are major stakeholders and one of the main sources of pressure for ensuring that business schools internationalize their curriculum (Walker, 2009). Having accreditation from the Association to Advance Colligate Schools of Business (AACSB), for example, provides business schools worldwide with proof that they are committed to high standards and continuous improvement, particularly with respect to their curriculum. As a condition of eligibility for accreditation, the AACSB requires business schools to show that their “business programs include diverse viewpoints among participants and prepare graduates for careers in the global context” (AACSB, 2012, p. 13). A business school, to be able to fulfill this requirement, must demonstrate that students are “exposed to cultural practices different than their own” (AACSB, 2012, p. 13) and also document how “it achieves diverse viewpoints among its participants and as a part of students’ learning experiences” (p. 13). The European Quality Improvement System (EQUIS), another accreditation agency for business schools worldwide, but particularly for business schools run by the European Foundation for Management Development (EFMD), also requires schools to

demonstrate internationalization. The EQUIS 2015 Standards and Criteria publication states that “the School should have a clearly articulated strategy and policies for internationalisation” (EQUIS, 2015, p. 64).

Offering study abroad programs is one of the most common ways for business schools to internationalize their curriculum (Altbach & Knight, 2007). The EQUIS (2015) publication mentions that business schools can demonstrate programme internationalization by making study abroad an integral part of their curriculum. Furthermore, the publication specifically states that “giving home students international exposure is usually achieved by study abroad opportunities” (p. 64). Walker (2009) found that 37.6% of business schools require their IB graduates to participate in some form of overseas experience, and an additional 25.4% of schools encourage their graduates to participate in study abroad. The use of study abroad as a form of internationalization is thus apparent from the importance given to it by business schools worldwide, with many even requiring students to study abroad as part of the school’s curriculum.

4.2.1 History of study abroad

Study abroad is considered to have existed since the beginning of formal education. Throughout history many scholars have gained their education by traveling to and attending many different institutions of higher education in multiple countries, incorporating the thoughts and opinions of different teachers when developing their own perceptions (Altbach & Teichler, 2001). The popular English tradition of the Grand Tour (Vande Berg, 2007), which existed from the mid-1600s to the mid-1800s, is probably the first structured example of study abroad. It consisted of a few privileged English men completing what they considered a rite of passage from adolescence to adulthood by taking a tour through Europe. The purpose of the tour was to not only acquire language skills and be exposed to works of art in the only way possible at that time, but to also complete a sort of cultural finishing school. The men travelled with a tutor, whose purpose was to guide their studies and keep them out of trouble (Walton, 2010). From the mid-1800s, the invention of rail travel made exploration throughout Europe significantly easier and decreased the prices of travel, leading to many more male scholars, from all walks of life, partaking in a Grand Tour. A form of the Grand Tour also expanded into North America in the early 1900s, and was named the Junior Year Abroad (Walton, 2010). As in the case of the English Grand Tour, it began with wealthy educated men who took a ship across the Atlantic Ocean to enjoy a year traveling and learning through Europe. These elite young Americans travelled through Europe in search of “cultural enrichment”, which they believed could only be found in the museums, laboratories and villas of Paris,

London, Rome and Barcelona (Vande Berg, 2007, p. 393). They were exposed to the history, art, language and culture of the countries they visited in order to become what was considered a well-rounded individual.

What can be considered one of the first official study abroad programs took place through the University of Delaware on 7 July 1923, when a group of eight students and one professor boarded the Rochambeau ship in New York headed for France (Walton, 2010). These students were participating in the Delaware Foreign Study Plan, which was designed to give students an opportunity to live with French families and take courses at a French university in order to learn and experience the language and culture. Getting this program started was a bit of a challenge for the university's president, Walter Hullihen, as people found it difficult to support the idea of sending American students to study abroad in Europe shortly after World War I. However, Hullihen believed that it was absolutely necessary to make international study an option for more students and specifically, for undergraduate students. He is quoted to have said:

If one of our specific aims is to create, eventually, a great reservoir of college trained business men upon whom commerce and government may draw for work that involves a knowledge of the language and customs of other countries, we must reach those who are likely to go into business when they finish the college course. (Walton, 2010, p. 65)

Needless to say, these initial student sojourners were under the careful protection and supervision of an American professor, who travelled with the group and oversaw their daily activities.

As a result of the success of the Delaware Foreign Study Plan, the concept of students studying in Europe expanded. Within two years Smith College followed suit by developing the Smith College Junior Year in France program and sent 32 female students to France along with one professor. In fact, over the next 15 years, the University of Delaware and Smith College programs successfully sent over 1,200 undergraduate students to France to study abroad (Walton, 2010). Students who participated in such programs were instructed to learn about France and French culture in a respectful way, and were advised not to make comparisons to their native culture. One Smith College student, Katherine Bolman, is quoted to have said:

Before the Smith College Junior Group sailed in August, 1927, President Neilson told us clearly what our purpose was. In France we were to do two things: absorb the best of French life and culture, and give in return our interest and our friendship. We were not to criticize what we found there, we were not even to put into words any

comparison of French ideas and customs with our own. Instead we were to use our faculties for observation, for study, for the acquisition temporarily of a French viewpoint. Especially we were to remember ‘to conduct ourselves at all times in such a way as to uphold our own good name and that of the college’ and never to forget our own best traditions while we were away from home. (Walton, 2010, p. 69)

Participants in these programs were similar to those of the Grand Tour in that they tended to be from affluent families, which could afford the luxury of international travel in the early 1900s. There was little diversity among participants, and they tended to stay within elite circles while in France, and even complained when they were placed in middle-class family homes (Bolen, 2001). The beginning of World War II, however, brought a very quick end to these programs.

In 1948, after World War II, the Fulbright Program was started, reviving the idea of studying abroad, but it only focused on the participation of a small group of academic elite (Altbach & Teichler, 2001). Starting in the 1970s and in the 1980s, study abroad began to experience an increase in participants. The goal of the programs during this period was to expose students to foreign languages, with students being encouraged to participate based on the belief that they “in some mysterious way learn through exposure to, through contact with, another culture” (Vande Berg, 2007, p. 393). As opposed to earlier study abroad programs, the home-university and its professors played only a minimal role, rarely intervening while students were abroad.

In the 1990s, a mass market for study abroad started in the US because more funding became available, there was an increase in the number of study abroad advocates, and there were changes made to government policies that allowed the use of Federal Financial Aid explicitly for study abroad (Bolen, 2001). The availability of such funding caused a more diverse population of students to want to study abroad, resulting in increases in the number of participants and pre-packaged programs available to students. Only around 400 programs were available to students in 1965, but this number grew to over 2,500 programs by 2000, and to more than 9,000 programs by 2011 (Bolen, 2001; Institute for International Education, 2013). According to data from the US, in the 1985/86 academic year 48,483 students participated in study abroad, by 1998/99 there were 129,770 participants, and by 2012/13 there were 289,408 participants (Institute for International Education, 2013). This shows that the number of US students studying abroad has more than doubled in the last 15 years. Additionally, the data identified business studies as one of the largest academic disciplines of study abroad, with approximately 20% of participating students pursuing Business or Management majors (Institute for International Education, 2013).

It is important to note, however, that despite the continued and steady increase in study abroad participants, the amount of students who study abroad only equates to approximately 10% of all college and university graduates. Governments, institutions of higher education, international organizations, and education associations have, therefore, set goals to double the number of students participating in study abroad by the end of 2020, through the initiative Generation Study Abroad. The Institute of International Education leads this initiative, and it has brought together educators and stakeholders from the public and private sectors, in partnership, to encourage students to participate in study abroad as a meaningful type of international experience (Institute for International Education, n.d.).

The US has also been actively increasing funding for study abroad, particularly to untraditional locations such as China and Japan (Commission on the Abraham Lincoln Study Abroad Fellowship Program, 2005). China is now one of the top five destinations for US students to study abroad, along with the United Kingdom (UK), Italy, Spain, and France (Institute for International Education, 2013). The U.S. Congress has also found bi-partisan support to increase the number of study abroad participants to at least 1 million students by 2017 (Lewin, 2009, p. xiii). In fact, the opening page of the Lincoln Commission report (Commission on the Abraham Lincoln Study Abroad Fellowship Program, 2005) states:

What nations don't know can hurt them. The stakes involved in study abroad are that simple, that straightforward, and that important. For their own future and that of the nation, college graduates today must be internationally competent. (p. ii)

Outside of the US, it is more difficult to ascertain how many students are participating in study abroad as much of the data available includes all students studying outside their home-country. These groups of students can include foreign students who are citizens of a country other than the one in which they are studying; international students who migrate to a host-country for the purpose of study; and study abroad students who participate in short-term study outside of their home-country. In fact, while the OECD (2013) reports that over 4.3 million students are studying outside their home-country, it does not distinguish between the different types of students, therefore, it is unknown how many are actually study abroad students.

Within Europe, the development of the European Region Action Scheme for the Mobility of University Students (ERASMUS) program indicates that student mobility within the European Union is a top priority on the political agenda. Study abroad featured prominently in the Europe 2020 Strategy report aimed at increasing job growth (ERASMUS Report, 2010), which explicitly suggests, “encouraging students to go abroad as part of their studies” (p. 10). Now called ERASMUS+, the program has a total budget of 14.7 million Euros to provide

funding for international learning and training, with at least 63% of the available funds being committed specifically to international learning mobility. It is estimated that 2 million higher education students will take advantage of the opportunities provided by ERASMUS+ for studying or learning abroad (ERASMUS+, 2014).

Other countries are also taking action to not only increase the number of their students who study abroad, but to also increase the number of students who come to their country for study abroad. Japan, for example, had set a goal to enroll 100,000 international students by the year 2000 (Altbach & Teichler, 2001). Unfortunately, their goal was unachieved due to guarantor, scholarship and accommodation issues, but they have since set a new goal to reach 300,000 enrolled international students by 2020 (Shao, 2008). Australia has also focused some attention on study abroad and student exchanges. Since 2009 there has been a steady increase in the number of Australian students studying abroad, and a recent survey of 37 Australian universities found that in 2013 14.8% of students had undertaken an international study experience (Olsen, 2014). A total of 29,487 Australian students completed an international study experience in 2013, compared to 24,763 in the previous year, an increase of 19.1%. Furthermore, the majority of these students were undergraduates, and 14.6% were studying either Management or Commerce (Olsen, 2014). Study abroad has also gained attention and support in New Zealand. The Ministry of Education in New Zealand recently commissioned a report to increase and assist the development of international student exchange opportunities in New Zealand Tertiary Education Institutions by identifying best practices for encouraging students to participate in study abroad (Doyle et al., 2008). It found that universities in New Zealand had the greatest success in getting students to study abroad by joining consortiums, where multiple universities offering equivalent levels of education agree to foster study abroad among themselves. For example, the Partnership in International Management (PIM), a consortium of leading business schools from around the world includes the Otago Business School, University of Otago, New Zealand (Doyle et al., 2008).

Over the last 10 years, presidents and provosts of many universities have also been challenging their faculty and staff to increase study abroad enrollments among their graduates to at least 40% (Vande Berg, 2007). Some institutions of higher education have even gone so far as to make study abroad mandatory for all graduates. For example, Harvard University announced their intention to make study abroad a degree requirement for all their students (Tarrant, 2010). Many of these proposed increases in study abroad participation have led to changes in the learning outcomes once expected of study abroad participants. In contrast to the aims of the Grand Tour, the current programs look towards increasing the development of

knowledge, skills and attitudes that will allow students to compete and solve problems on a global scale (Lewin, 2009, p. xiv). This change to the learning outcomes has mostly resulted from the increased interconnectivity among the world's business markets and the increasingly diverse populations within countries.

The administrators and faculty members of many institutions of higher education are also taking a more active role in the study abroad experience. In the past, the home-institutions of many study abroad participants took a relatively passive role by merely recommending what courses students should complete during their study abroad. Nowadays, study abroad offices can be found on nearly every university campus, and faculty members are being encouraged to develop short-term study tours for their students in order to control the learning that takes place while they are studying abroad. Universities are also developing exchange agreements with other universities worldwide in order to increase the amount of study abroad program opportunities available to their students and increase their control over such programs. These agreements not only include sending their students to foreign institutions, but also include sending their faculty to teach and do research abroad (Ho, Lin, & Yang, 2015; Lichy & Pon, 2015; Tobenkin, 2015). Based on this and all the other activities discussed, it is anticipated that numbers of university-level students studying abroad will continue to increase worldwide.

4.2.2 Definition and types of study abroad programs

In order to discuss and identify the benefits of a student partaking in a study abroad program, it is necessary to first clarify exactly what is meant by the term study abroad. The dictionary definitions of the words 'study', "application of the mental faculties to the acquisition of knowledge", and 'abroad', "beyond the boundaries of one's country" (Merriam-Webster, 2003), provide a starting point for characterizing study abroad. Combining the two definitions results in 'applying mental faculties toward the acquisition of knowledge beyond the boundary of one's country'. This, however, does not provide information about what types of study abroad programs are available, or give any indication of the outcomes that can be expected from participating in study abroad.

Ingraham and Peterson (2004) suggest that there are six main goals of study abroad participation: 1) facilitating intellectual growth, 2) contributing to professional development, 3) accelerating personal growth, 4) developing skills for relating to different cultures, 5) enhancing self-awareness and understanding of one's own culture, and 6) contributing to the internationalization of the home university. Although these goals provide a way to evaluate and describe the potential benefits of study abroad, it should be noted that many of these goals

could be achieved without students needing to study in a foreign country. For example, MacNab et al. (2012) have demonstrated that structured education programs can improve students' skills for relating to other cultures (goal 4) and Fischer (2011) found that participants in his training program developed a better understanding of their deficiencies about their own and other's culture (goal 5). Lastly, since experiential training that includes a contact component has been shown to be essential for the development of CQ (MacNab, 2012), the contact provided by intra-national cross-cultural experiences or intra-culture programs may be as effective as study abroad at achieving many of the specified goals. In line with some of these goals, there have been several documented outcomes of study abroad participation. Research on the outcomes of study abroad participation have confirmed, for example, its positive impact on intercultural sensitivity (Anderson, Lawton, Rexeisen, & Hubbard, 2006; Engle & Engle, 2004; Paige, Cohen, & Shively, 2004); worldmindedness (Douglas & Jones-Rikkens, 2001); global mindedness (Parsons, 2010); global competence (Olson & Kroeger, 2001); intercultural proficiencies including, cultural pluralism, efficacy, and interconnectedness (Clarke, Flaherty, Wright, & McMillen, 2009); self-awareness (Dwyer & Peters, 2004); and foreign language acquisition (Kinging & Farrell, 2004; Mendelson, 2004; Segalowitz et al., 2004).

Engle and Engle (2003) argue that it is impossible to research and determine the outcomes of study abroad, however, without having a clear way of classifying different programs, as there are fundamental differences between program types. Study abroad programs have taken on many different forms because of the various combinations of program aspects that are available to students. Another reason for this is that institutions of higher education have begun developing and designing more programs that are operated and managed by the home-institution (Howard & Keller, 2009; Self & Self, 2009). The main justifications for offering home-institution managed programs include giving the home-institution more control over the learning outcomes of the study abroad, developing less expensive opportunities for international study, and providing faculty with more opportunities for international development (Henthorne, Miller, & Hudson, 2001). At most universities in the US, there are four main types of study abroad programs available to students, *study tours*, *summer study abroad*, *traditional study abroad*, or *exchanges*. Although all of these types of programs require a student to temporarily relocate to a foreign country and undertake academic learning in that country, they have different elements of design.

The terminology used to refer to study abroad varies outside the US. Although some institutions offer summer study abroad or study tours, the same term is typically used to refer

to all types of international study opportunities. For example, in Europe all types of study abroad are referred to as ‘exchange programs’. Furthermore, study abroad is referred to as ‘international mobility of students’ in Asia; ‘international study experience’ in Australia; and ‘international student exchange’ in New Zealand. Thus, given the varied nomenclature, for the purpose of clarification, I briefly discuss each of the four main types of study abroad programs, specifically providing information regarding how they differ with respect to the length of the program and level of home-institution regulation.

Study tour programs are usually very short in length (one to three weeks), include a group of students from a single home-institution studying abroad together, and are led by a faculty member from the home-institution. Participants earn course credits through their home-institution, and their transcripts do not typically indicate that the course(s) included international study. The home-institution and the accompanying faculty member generally regulate the content of the course(s) as well as the activities that are completed while the students are in the foreign country.

Summer study abroad programs are slightly longer in length (three to eight weeks) and are not led by a faculty member from the home-institution, however, they can include multiple students from the same home-institution participating in the same program. In addition, students direct enroll in the host-institution, but typically receive transfer credits at their home-institution for courses that were pre-approved by the home-institution. Thus, although the home-institution does not regulate the content of course(s) completed through the host-institution, they do pre-approve the course(s) that students can register for.

Traditional study abroad programs generally last at least a semester (approximately four to six months) and can extend up to a full academic year, during which time the student is not enrolled at their home-institution. These programs involve a student registering for either a program through a study abroad program provider or courses directly through the host-institution. In the case of traditional study abroad programs, students receive transfer credits at their home-institution for any courses they complete through the host-institution. A designated study abroad office at the home-institution typically only provides planning, application and preparation services for students, however, in some instances students also work with advisors to receive pre-approval for the courses they plan on registering for at the host-institution.

Exchange programs are commonly one semester long, but can be shorter (three to eight weeks) or longer (a full academic year) dependent on the agreements between the participating universities. In contrast to other types of study abroad programs, during an exchange program, students remain enrolled at their home-institution, and pay tuition and fees directly to their

home-institution while studying at the host-institution. In addition, the courses exchange students can register for at the host-institution are normally pre-arranged between the two universities and are the only courses available to them. Lastly, the home-institution provides academic advising for exchange students, informing them about the courses that will apply towards fulfilling degree requirements. Exchange programs have become much more common in recent years and are typically designed to offer horizontal exchanges between two universities. While the two universities tend to agree to send equal numbers of students between their campuses, they typically balance the numbers every few years to ensure no university is sending or receiving more students. Some exchanges have also begun offering 1+1 or 2+2 partnership programs where students can spend one year or two years at each university to receive a dual master or bachelor degree, respectively. Exchange agreements are beneficial to students because they pay tuition and fees at their home-institution, including fees for student-housing, and also because they typically do not need to apply to and be accepted for admission into the host-institution. These benefits have greatly reduced the costs related to study abroad for students and have, in the process, allowed institutions to increase the diversity of their student populations.

In order to research the outcomes of study abroad participation it is necessary to be clear about the type of study abroad program that is being examined. For my research, I define study abroad as the act of a university-level student relocating to a host-country for one semester for the purpose of academic study. Defining study abroad as requiring a student to relocate and, thus, live in a host-country is justified given the research sub-questions I aim to answer. Furthermore, according to the theoretical lens that I apply to answer my research questions, an individual needs to have opportunities to observe natives of a foreign environment and reproduce the observed behaviors in the same environment (Bandura, 1977). As studying with a group of students from one's home-institution and being in a host-country for only a few weeks may not provide sufficient time to effectively develop new knowledge and skills (Blasco et al., 2012; Church, 1982), I examine traditional study abroad and exchange programs that are one semester in length (hereafter referred to as a study abroad program). Using only these two types of study abroad programs enables the examination of the components that make-up the programs to gain insights into how the quality of programs and the interaction of the participants with the foreign environment impact CQ.

4.2.3 Study abroad program components

International experiences can differ based on how an individual is introduced to a host-country, where an individual lives, the level of language competence needed prior to arriving

in the host-country, and the language used for completing necessary tasks, among others. For example, expatriates relocating with the assistance of their organizations may live in a hotel or be provided housing of a similar standard to what they had in their home-country, they may need very little competence in the host-country native language because of assistance provided by interpreters, and they may not need any knowledge of the host-country native language in order to complete the tasks related to their international assignment. Measuring only the amount of time these individuals spent in a host-country or the number of countries where they had similar experiences, therefore, does not provide an accurate account of their international experiences. Study abroad programs, however, offer the opportunity to separate all of these aspects of an international experience in order to consider their relationships with learning outcomes, and compare how differences across and between them could result in different levels of skill development.

To address the lack of insightful research about study abroad, Engle and Engle (2003) proposed a level-based classification system, which considers differences in both academic and cultural experiences offered by study abroad programs. Their system identifies comparable and objective program components, and then classifies a study abroad program based on how immersive it is, allowing for comparisons between the program types. The program components that Engle and Engle (2003) specified are: 1) length of the sojourn, 2) entry target-language competence, 3) language of instruction used in course-work, 4) context of academic work, 5) type of housing, 6) cultural interaction or experiential learning opportunities provided, and 7) opportunities provided for guided reflection on the cultural experience. For each of the components, Engle and Engle (2003) provided categories to identify the level of immersion of the program component. For example, the program component entry target-language competence focuses on the level of fluency in the host-country native language needed by individuals before their arrival in the host-country. The levels of immersion for this program component can range from needing no competence or understanding to needing an advanced level of competence or understanding in the host-country native language. Based on the level of immersion of all of the program components, the study abroad is then classified as a study tour, short-term study tour, cross-cultural contact program, cross-cultural encounter program, or cross-cultural immersion program. It is important to note that some of the components differ based on the location of the study abroad, while others differ based on the structure of the program or the opportunities provided by the program.

Using study abroad as the international experience and drawing from the study abroad literature, I am able to borrow from the Engle and Engle (2003) classification system to investigate the learning outcomes of study abroad with regard to specific program components. I utilize the program components as a way of unpacking the study abroad experience and investigate how differences between the levels of immersion impact CQ.

4.3 Conceptual model and hypotheses

The conceptual model examined within this research was informed by my review of the CQ literature, application of SLT to the link between international experience and CQ, and the results of previous scholarly investigations of the relationship between study abroad and CQ. I first briefly review the information that formed the basis for the conceptual model and then present it. Following which, I discuss the development of five hypotheses.

The outcomes of the literature review in Chapter 2 highlighted that a fruitful opportunity for future research is additional investigations of the antecedents to CQ. The review also evidenced that there is a specific need for better theoretical grounding when investigating potential antecedents to CQ. In Chapter 3, I reviewed literature that examined international experience as an antecedent to CQ, and substantiated that there have been inconsistent and often times contradictory findings within the results of these studies. In addition, I demonstrated that theory is frequently absent from scholarly research when examining the link between international experience and CQ, and argued that this is one reason for the inconsistent results. I also suggested that the lack of depth when measuring international experience could be another source for the variation in the results of previous research. Based on these arguments, I discussed how and why SLT (Bandura, 1977) provides a comprehensive and powerful tool to understand the influence of international experience on CQ and presented several testable propositions.

According to SLT, when an individual is a part of the learning environment he or she develops cultural knowledge and skills by paying attention to natives in the environment, retaining what they observe, and reproducing what they observe (Bandura, 1977). These processes of attention, retention and reproduction lead to new models or schemas of cultural information and behavior, which the individual can then refer to and adjust in future situations. Two facets of CQ, cultural knowledge and cross-cultural skills (Thomas et al., 2008), are developed through these processes during the international experience; the third facet of CQ, cultural metacognition, is what allows the individual to reflect on and draw from these new schemas of cultural information and behavior to be effective during future interactions. Both direct

experience and the observation of others in the environment lead to new cultural knowledge and skills, which, according to SLT, can only be accomplished through international experience (Bandura, 1977). As a result, using SLT as a lens provides support for anticipating international experience to influence the development of CQ. Therefore, I recommended that the first step for empirically testing the propositions presented in Chapter 3, is to gain a better understanding of international experience by identifying experiences that can be examined in more detail.

In the beginning of this chapter, I explained how utilizing study abroad provides a unique opportunity to complete a more detailed examination of this type of non-work international experience. CQ is developed through exposure to other cultures, and during students' study abroad they are exposed to the behaviors of host-country natives. Study abroad is a type of international experience that is frequently used by universities to develop and prepare their students for future positions as business professionals. In a recent review of the study abroad literature, Varela and Gatlin-Watts (2014) identified three areas that have garnered the most attention from scholars when investigating study abroad. The first centers on the antecedents or drivers for participation in study abroad programs; the second explores the institutional support factors that encourage and make study abroad accessible; and the third, seen in the majority of the studies, focuses on the learning outcomes of study abroad participation. With respect to the studies focused on the outcomes of study abroad, Varela and Gatlin-Watts (2014) argued that research on study abroad outcomes would benefit from investigations that include multidimensional constructs, which are linked to behavioral adaptation. In addition, given the large number of business students participating in study abroad, they concluded that there is a void in management publications on study abroad. This gap in the literature can potentially be addressed by including CQ, which has been frequently researched and cited within management and IB as a skill-set applicable to future business professionals, within study abroad research investigations.

Engle and Engle's (2003) classification system identified objective study abroad program components, and they suggested its use for detailed examinations of study abroad. As discussed, relying on their classification system provides a framework to unpack study abroad experiences, which allows for investigations to understand how the level of immersion of different program components influences CQ, and how different levels within each component impact CQ. Research on the relationship between study abroad and CQ, while under examined, provides some important insights regarding the impact of program components on the development of CQ. For example, Engle and Crowne (2014) demonstrated that structured

study abroad programs, which included preparation and debriefing sessions, resulted in increased CQ. Additionally, Varela and Gatlin-Watts (2014) evidenced that when courses are taught in the non-native language of the student, some of the facets of CQ increased. Lastly, Wood and St. Peters (2014) argued that having opportunities to interact with members of the foreign environment impacts the development of CQ, and are necessary for linking study abroad and CQ.

4.3.1 Conceptual model

This study transcends prior research by: 1) relying on the classification of study abroad program components proposed by Engle and Engle (2003), 2) examining whether there are differences in CQ between the levels of immersion of the program components, and 3) relying on Thomas et al.'s (2008) conceptualization and measure (Thomas et al., 2015) of CQ. Specifically, I test the model illustrated in Figure 4.1, below. The individual study abroad program components and the number of corresponding levels of immersion within each are depicted in the middle of the figure. The arrows represent the tested relationships between the study abroad program components and CQ, and their corresponding hypotheses. The relationships tested through the model predict that there will be differences in CQ between the levels of immersion of the study abroad program components: entry target-language competence (H1), language of instruction used in course-work (H2), type of housing (H3), opportunities in cultural interaction/experiential learning (H4), and opportunities for guided reflection on the cultural experience (H5).

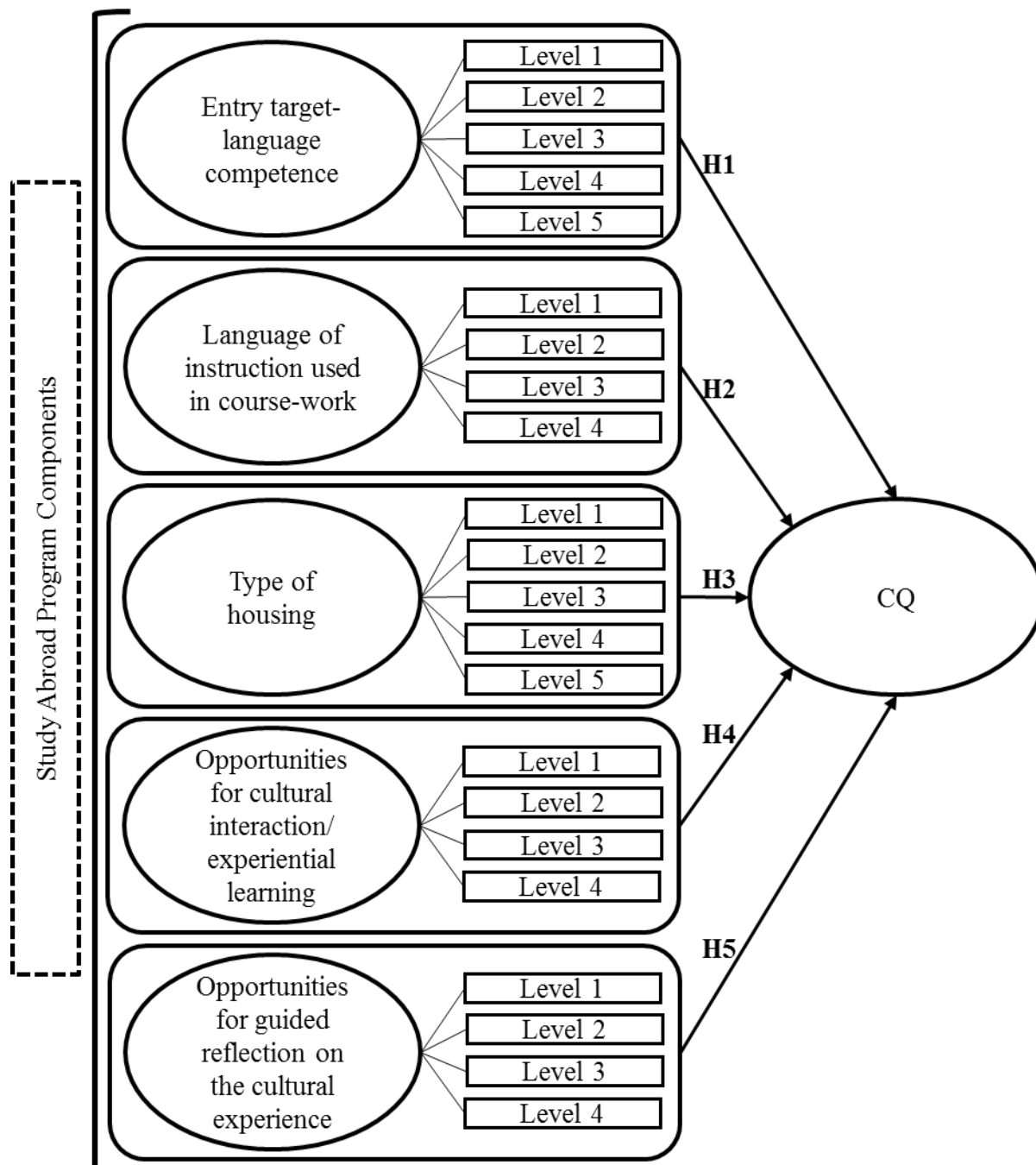


Figure 4.1 Conceptual model of the levels of immersion of the study abroad program components and their links to CQ.

When Engle and Engle (2003) specified the study abroad program components, they also introduced a classification system based on categories within each component that can be utilized to indicate the level of immersion of the component. The main reasons why I utilize this classification system are because the program components are objective and are included, to some extent, in all study abroad programs. Therefore, based on the program components and their level of immersion, the model presented in Figure 4.1 can be empirically tested to determine: 1) if any of the program components influence CQ, and, if they do, 2) how CQ differs between the levels of immersion.

4.3.2 Hypotheses development

When Engle and Engle (2003) developed their classification system, they argued that the study abroad program components that they specified would lead to differences in skill development based on the component's level of immersion. In particular, they stated:

A graduated system of levels, reflecting the degree of cultural immersion aimed at and facilitated by individual program types, would call valuable attention to the fact that certain kinds of programs are, in fundamental ways, further along a scale leading toward an ideal – that of the “cross-cultural competence” of their participants. (Engle & Engle, 2003, p. 7)

However, Engle and Engle (2003) also advised that the link between the level of immersion of the study abroad program components and the development of skills is primarily dependent on the participating student. For example, if the language of instruction in courses is at the highest level of immersion (all curricular and extracurricular activities are in the host-country language) and the student's host-country native language competence is at the elementary level, the student may withdraw from the learning environment and, as a result, experience very little skill development during the study abroad. Given this recommendation from Engle and Engle (2003), drawing from the study abroad literature, and utilizing a SLT lens, I put forward five hypotheses for testing.

The first two hypotheses consider host-country native language competence and its use. In particular, they focus on the level of host-country native language competence needed prior to entering the country and the language of instruction used within course-work during the study abroad. Varela and Gatlin-Watts (2014) used a pre/post-test design to measure the influence of a summer study abroad program (lasting an average of 65.31 days) where all courses were taught in a language that was non-native to the participants on their CQ. The results of their study showed that participants experienced significant increases in both their cognitive and metacognitive CQ. Language is an important part of culture and “conveys many subtleties about a culture” (Thomas & Inkson, 2004, p. 90); observing the behaviors of host-country natives and understanding their verbal communication provides greater opportunity to gain accurate cultural knowledge about interacting with natives.

When entering a host-country, the level of native language competence needed can affect an individuals' efficacy and outcome expectations (Bandura, 1977) with respect to their abilities to interact effectively. These expectations influence their attention, retention and reproduction of the new knowledge and behaviors that they are exposed to while in the host-country. In addition, the language of instruction used in course-work influences individuals' acquisition of

the host-country native language (Kinger & Farrell, 2004; Mendelson, 2004; Segalowitz et al., 2004). Furthermore, when the host-country native language is used in course-work, it is likely that individuals are more exposed to members of the host-country, which in turn leads to increased intensity and frequency of their interactions with host-country natives (Freed, 1995). These increases in interaction with host-country natives provide more opportunities for individuals to go through the learning processes of attention, retention and reproduction. Thus, the level of immersion of the host-country native language skills needed prior to arrival and of the host-country native language used in courses can be expected to result in differences in CQ development. Accordingly, I hypothesize the following:

H1: There is a significant difference in participants' mean CQ between at least two of the levels of immersion within the entry target-language competence program component.

H2: There is a significant difference in participants' mean CQ between at least two of the levels of immersion within the language of instruction used in course-work program component.

The third hypothesis considers the housing situation of the student during the study abroad. Engle and Crowne (2014) used short-term study abroad and a pre/post-test design to measure the impact of study abroad on CQ. They demonstrated that a structured program, which included living with members of the host-country, significantly increased all four facets of the participants' CQ. Although Engle and Crowne (2014) did not focus on how this individual program component impacted CQ, their study does provide some evidence of the important role that the type of housing plays in influencing CQ. Diao, Freed, and Smith (2011) completed in-depth interviews with study abroad participants and demonstrated that participants who lived with host-country natives spent a significant amount of time interacting with members of their host-family. Living with a host-family during a study abroad increases the amount, depth and intensity of exposure to host-country natives and their behaviors.

When individuals are regularly exposed to host-country natives, and are dependent, to some extent, on this interaction, they have more opportunities to go through the processes of attention, retention, and, most importantly, reproduction of observed behaviors. According to SLT, participative reproduction has the greatest influence on what information and behaviors are retained for future interactions (Bandura, 1977). Gutel (2007) found that more than 70% of the students she surveyed rated their interactions with their host-family as very important or essential to the success of their study abroad. In addition, students indicated that their host-family encouraged and assisted them during interactions with other host-country natives by

guiding them and providing directions for improving future interactions. This assistance and guidance provides opportunities for individuals to reproduce observed behaviors and practice interacting with host-country natives in a supportive environment conducive to their development of new cultural knowledge and skills. Therefore, the level of immersion of the type of housing during a study abroad can be expected to result in differences in CQ development. Accordingly, I put forth the following hypothesis:

H3: There is a significant difference in participants' mean CQ between at least two of the levels of immersion within the type of housing program component.

The final two hypotheses focus on the opportunities provided by the study abroad program for cultural interaction and reflection on the cultural experience. Wood and St. Peters (2014) surveyed MBA students before and after a study tour to test for differences in their CQ, and found that cognitive, metacognitive, and motivational CQ significantly increased during the study tour. They concluded that participating in question-and-answer information sessions held with business professionals of the host-culture and reflective journaling contributed to increases in students' cognitive and metacognitive CQ, and that being in a nonthreatening learning environment where participants could explore, observe others, and test-out observed behaviors contributed to increases in their motivational CQ. In addition, Savicki (2010) explored how different types of cultural contact during study abroad impacted several outcomes in order to identify those contact types that are most beneficial to students. He suggested that both exposure to the host-culture through required contact sessions with host-country natives and adequate reflection provide "an effective balance of challenge and support" (p. 81) during a study abroad, which leads to better coping capabilities when students encounter acculturative stressors and more creative thinking when they are exposed to culture related difficulties (Savicki, 2010).

Interacting with host-country natives and reflecting on these interactions, are arguably the most essential and influential components of a study abroad program for developing new cultural knowledge and skills. Engle and Engle (2003) emphasized that interaction and reflection are what ultimately "separates study abroad from study at home" and that programs can be distinguished based on "the degree to which program design facilitates such experience" (p. 4). According to SLT, during the retention and reproduction processes (Bandura, 1977) individuals reflect on their interactions with host-country natives and consciously question their previously held cultural assumptions. These reflections result in adjustments to their previously held knowledge and skills, which are influenced by new

cultural knowledge and observed behaviors, and also provide an opportunity to cognitively rehearse behaviors for future interactions.

Having opportunities to interact with host-country natives is crucial for an individual to develop new cultural knowledge and skills (Thomas et al., 2008). Without these opportunities, it is not possible for an individual to go through the attention, retention and reproduction processes (Bandura, 1977). In addition, reflecting on the cultural experience is essential in order to retain new knowledge and behaviors, and to facilitate the reproduction of the behaviors for use in future cross-cultural interactions (Thomas et al., 2008). Reflection is an inherent part of cultural metacognition (Thomas et al., 2008), thereby making it an integral part of the process of developing CQ. Therefore, it can be expected that having opportunities for interaction with host-country natives and guided reflection opportunities will impact CQ development. Based on the above arguments, I propose the following hypotheses:

H4: There is a significant difference in participants' mean CQ between at least two of the levels of immersion within the opportunities for cultural interaction/experiential learning program component.

H5: There is a significant difference in participants' mean CQ between at least two of the levels of immersion within the opportunities for guided reflection on the cultural experience program component.

This chapter focused on study abroad as the type of international experience utilized to empirically examine its link to CQ in this research. I detailed the history of study abroad and the significant increases in participation in recent years. I also discussed the different types of study abroad programs and used this information to define study abroad within the context of this study. Furthermore, I explained why study abroad is a unique and illuminating experience that allows for a more detailed investigation of international experience. Finally, grounded in previous research and based on my application of SLT, I presented a conceptual model and proposed a set of hypotheses predicting differences in CQ development as a result of the level of immersion of specified study abroad program components. In Chapter 5, I discuss the methodological activities, including, research design, sampling, instrumentation, and data collection and analysis techniques employed to examine and test these hypotheses.

Chapter 5. RESEARCH METHODOLOGY

5.1 Introduction

Research methodology explains the operational plan of activities that relate to how and why data were collected and how the data will be analyzed (Zhang & Shaw, 2012). As the choice of methods used should be “highly interrelated” with theory, methodology considers the results of the literature review along with the theory applied to the research problem (Van Maanen, Sørensen, & Mitchell, 2007, p. 1145). My thorough review of the CQ literature in Chapter 2 and analysis of the link between international experience and CQ in Chapter 3, identified the need for additional research to examine international experiences in more detail, and gain a better understanding of their relationship with CQ. In Chapter 4, I explained how study abroad programs offer a unique opportunity to unpack the international experience construct, allowing for its in-depth examination and subsequent understanding of how different program components impact CQ. In addition, I used a SLT lens to anticipate and hypothesize differences in CQ based on the level of immersion of the study abroad program components.

In this chapter, I provide a detailed explanation of the specific research design, sampling method, instrumentation, questionnaire design, data collection method, and data analysis techniques I utilized.

5.2 Research design

This study aims to answer focused research questions about existing constructs by applying a mature theory to develop formal hypotheses, which are then tested utilizing original data that is collected in the field (Edmondson & McManus, 2007). As this study examines and tests the relationships between five study abroad program components and CQ, a quantitative research design was adopted. Quantitative research methods, which enable scholars to test the effects between variables, are the dominant approach within the social sciences (Bryman & Bell, 2011) and have been the central research approach in the fields of IB and organizational research (Aguinis, Pierce, Bosco, & Muslin, 2009; Doz, 2011). In addition, quantitative research methods are suggested when applying and building on mature theories and when the research relies on existing constructs (Bryman & Bell, 2011), in order to achieve methodological fit. Methodological fit ensures quality within field research and is achieved in a research project when there is “internal consistency” among the elements, which include the research questions, previous research in the field, research design, and intended theoretical contributions (Edmondson & McManus, 2007, p. 1155).

My research questions, outlined in Chapter 1, focus on identifying and examining the impact of international experience on CQ, differences in mean CQ across the study abroad program components, and how mean CQ differs between the levels of immersion of the program components. The independent variables were measured by gathering factual and objective information about the study abroad programs of the study participants. All of the remaining variables were measured using established scales, and the relationships were tested using statistical analyses. Furthermore, the theory I employed, SLT, is an existing and mature theory that explains how individuals develop new skills and behaviors through social learning.

In addition to methodological fit, a robust research project also considers the level-of-analysis in order to avoid issues of incongruence between the theory, measurement and statistical analyses utilized (Klein, Dansereau, & Hall, 1994). I applied SLT to make predictions and develop hypotheses to measure the effect of exposure to other cultures on an individual's CQ, where variations within the CQ construct are "the product of individual differences" (Klein et al., 1994, p. 200). As an individual-level theory, SLT explains that learning occurs based on an individual's social exposure through the processes of attention, retention and reproduction of observed behaviors (Bandura, 1977). All of the independent and dependent variables investigated assess an individual's unique experiences, characteristics and behaviors, and are thus individual-level constructs (Klein et al., 1994). CQ was developed as an individual-level construct to understand differences in intercultural effectiveness (Thomas et al., 2014). The SFCQ, used to measure CQ, identifies these differences (Thomas et al., 2015). The study abroad program components are also measured based on each individual's experience during their study abroad, and the opportunities made available to them through their program (Engle & Engle, 2003). The data collection and statistical analyses were performed at the individual-level in order to fit with the level of the theory and constructs. In order to maximize between-individual variability data were collected from a diverse sample of university-level business students participating in different types of study abroad programs (Klein et al., 1994) using self-report survey measures. With respect to the data analyses, each individual's mean CQ was used to identify the effect of the independent variables and test the hypotheses.

Quantitative research methods are utilized in this research, including surveys and multiple linear regression statistical analyses, to examine the hypothesized relationships. In addition, pairwise comparison tests were used. Quantitative research methods are appropriate when the research aim is to determine if categorical independent variables have an effect on a dependent variable, and whether there are mean differences between the categories of the independent variables (Creswell, 2009; Fraenkel & Wallen, 2006). There was also no manipulation used

for group membership among the independent variable categories (Fraenkel & Wallen, 2006) because the study participants were already grouped within the variables of interest before the data collection began, and thereby could not be randomly assigned. The study abroad program components are viewed as the independent variables and include: 1) entry target-language competence; 2) language of instruction in courses; 3) type of housing; 4) provisions for cultural interaction/experiential learning; and 5) guided reflection on the cultural experience, and CQ is viewed as the dependent variable. The analysis is based on multiple linear regression modeling and pairwise comparisons utilizing cross-sectional data from university-level business students participating in a study abroad program. For the data collection, an online survey was utilized because students are familiar with online surveys and it allowed for a large number of students to be invited to participate in the study.

The research design utilized is appropriate for post-positivist knowledge claims where the aim is to test hypotheses and collect data that will either support or refute these hypotheses (Creswell, 2009). Quantitative research allows me to use statistical models to answer my research questions, because I want to determine if there are differences in CQ across the study abroad program components and understand how CQ differs between the levels of immersion of each program component. The knowledge gained from this study will provide theoretical implications that can be incorporated into future research and practical implications that can be utilized by study abroad program administrators and IHRM.

5.3 Sampling method

In order to examine the relationships between the study abroad program components and CQ, the target population of this study comprised of university-level business students who participated in a study abroad program. Study abroad programs are made-up of different objective components and each component includes varying categories (Engle & Engle, 2003). Through this type of international experience, academic sojourners are exposed to other cultures, which provide learning opportunities (Church, 1982). CQ considers individual differences in abilities during cross-cultural interactions and has been theorized as an outcome of exposure to other cultures (Thomas et al., 2008).

To test the hypotheses presented in the previous chapter, I adopted a purposeful convenience sampling method (Mertens, 2005). The main reason for using this non-probability sampling approach (Creswell, 2009) was due to the difficulty in identifying and gaining access to the target population. Universities and education management organizations generally maintain the strict confidentiality of their student databases. Access to such databases can be achieved

by working directly with the university or education management organization, which can be usually be accomplished by establishing one's credibility through a mutual contact.

Another reason this sampling method was selected was to achieve comparability across the categories of the independent variables (Fraenkel & Wallen, 2006). The classification system of study abroad program components utilized (Engle & Engle, 2003), suggests that study abroad programs can be differentiated based on the level of immersion of the program components. However, in order to test the effect of each independent variable on CQ, determine whether mean differences exist among the categories and answer the research questions, the sample needs to have adequate response variation within the categorical independent variables.

5.4 Instrumentation

The instruments used were designed to measure CQ and collect data about the components of the study abroad program participants completed. The questionnaire also collected demographic data about respondents, including gender, age and nationality. In addition, information about the location of their study abroad and any previous study abroad experiences they have completed were also collected. Finally, instruments measuring the Big Five Personality Characteristics and self-efficacy were employed. The following section provides a detailed discussion of the instruments that were adopted for use within this study.

5.4.1 CQ

There are two primary scales available to measure CQ, the CQS and the SFCQ. The first was developed and validated by Ang and colleagues (2007) in order to measure CQ according to the conceptualization developed and introduced by Earley and Ang (2003). The second was developed and validated by Thomas et al. (2015) to measure CQ as conceptualized and introduced by Thomas et al. (2008).

The Earley and Ang (2003) construct, as operationalized by Ang et al. (2007), places the four facets of CQ (cognitive, metacognitive, behavioral and motivational) and the overall construct at the same level as an aggregate concept. In this way the facets are described as “different types of capabilities that together form the overall CQ construct” (Ang & Van Dyne, 2008, p. 7). A result of the Earley and Ang (2003) conceptualization being an aggregate concept, is that its development into four separate facets, which allows for the CQS measurement tool, is limited as it can only be utilized to assess relationships between each facet of CQ with antecedents or outcomes, and not between the overall construct with antecedents or outcomes

(Thomas et al., 2012). When introducing the CQS, Ang et al. (2007) did not discuss overall CQ or its potential relationships with antecedents or outcomes, but demonstrated that individual facets of CQ have relationships with different cognitive, affective and behavioral intercultural effectiveness outcomes.

Thomas et al.'s (2008) conceptualization views CQ as a higher order construct that emerges out of the interaction of the lower order facets of the construct. CQ includes having information (knowledge), understanding of how to apply knowledge (skills) and "knowledge of and control over one's thinking and learning" (cultural metacognition) (Thomas et al., 2012, p. 156). This conceptualization of CQ as a latent construct emphasizes the interaction among the facets and the linking role of cultural metacognition to result in CQ. The SFCQ measures CQ according to this conceptualization and was utilized because the dependent variable of interest is overall CQ.

CQ was determined by the 10-item SFCQ scale which uses a five-point Likert scale ranging from 'not at all' to 'extremely' (Thomas et al., 2015). Items of the scale asked participants to rate the extent to which each statement describes them with respect to each of the three dimensions. Cultural knowledge consisted of two items, cross-cultural skills consisted of five items, and cultural metacognition consisted of three items. Sample items for each dimension included: 'I can give examples of cultural differences from my personal experience, reading, and so on' (cultural knowledge); 'I sometimes try to understand people from another culture by imagining how something looks from their perspective' (cross-cultural skills); and 'I am aware that I need to plan my course of action in different cultural situations and with culturally different people' (cultural metacognition). The reliability alphas were acceptable for the cultural knowledge ($\alpha = 0.60$), cross-cultural skills ($\alpha = 0.63$) and cultural metacognition ($\alpha = 0.68$) dimensions, and the total scale alpha was 0.78.

5.4.2 Study abroad program components

The study abroad program components were determined from a level-based classification system developed by Engle and Engle (2003) and they recommended that it be utilized to include more depth when researching study abroad programs. As a result of the undeniable conclusion that there are fundamental differences in the academic and cultural experiences across study abroad programs, the classification system was also developed to address the lack of insightful research on study abroad programs (Engle & Engle, 2003). The system distinguishes components of program design based on comparable and objective criteria. The components measured in this study include entry target-language competence, language of instruction used in courses, type of student housing, opportunities for cultural

interaction/experiential learning provided and opportunities for guided reflection on the cultural experience provided. The program components are mutually exclusive and exhaustive in that a participant could not fall into more than one category, and all possible categories related to that component were included (Breakwell, Hammond, Fife-Schaw & Smith, 2006; Engle & Engle, 2003). Each component was measured through a single item asking the student to select the answer that best describes their study abroad program.

Participants were asked to select the response that best describes their study abroad program with respect to each of the criteria used within Engle and Engle's (2003) classification system. For entry target-language competence participants were asked to 'select the answer that best describes the level of native language understanding needed before arriving in the country where you are studying/studied abroad' with possible responses including 'None', 'Elementary to intermediate', 'Intermediate to pre-advanced', 'Pre-advanced to advance' and 'Advanced'. For language of instruction used in courses, participants were asked to 'select the answer that best describes the language used in the courses you are completing/completed while studying abroad' with possible responses, including 'English only', 'English and the native language of the country', 'Predominately in the native language of the country', and 'In the native language of the country in all courses and extracurricular activities'. To assess the type of housing, participants were asked to 'select the answer that best describes your housing situation while you study/studied abroad' with possible responses including 'Collective with other study abroad students (i.e. dorm rooms)', 'Collective with students from the local university (i.e. dorm rooms)', 'Home stay with other study abroad students', 'Apartment rental', 'Individual home stay with a local family'. To measure opportunities for cultural interaction/experiential learning provided, participants were asked to 'select the answer that best describes the opportunities for cultural interaction and/or experiential learning provided by your study abroad (i.e. networking opportunities, internships, service-learning, volunteering, community service, etc.)' with possible responses including 'There are/were no opportunities for cultural interaction or experiential learning provided', 'There are/were limited opportunities for cultural interaction or experiential learning provided', 'There are/were regular and optional participation opportunities for cultural interaction or experiential learning provided' and 'There are/were regular and required participation opportunities for cultural interaction or experiential learning provided'. To assess opportunities for guided reflection on the cultural experience provided, participants were asked to 'select the answer that best describes the extent to which your study abroad program offers/offered an opportunity to reflect on your cultural experience' with possible responses including 'There were no guided reflections or cultural orientation/information sessions offered', 'There was an

orientation program that included information about culture’, ‘There was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad’, and ‘There were opportunities to reflect on the cultural experience such as mentoring, courses in cultural perspectives, opportunities to write or research culture among others’.

It is important to note that I relied on the classification system developed by Engle and Engle (2003) to identify and measure the study abroad program components. They stated that their system refers to “a graduated system of levels, reflecting the degree of cultural immersion aimed at and facilitated by individual program types” (p. 7). In this study, the classification that represents the different levels of immersion of the study abroad program components as specified by Engle and Engle (2003) were used as the possible response categories within the questionnaire. Therefore, ‘levels of immersion’ and ‘categories’ are used interchangeably throughout the remainder of the thesis. Additionally, although the use of ‘levels’ usually implies that the data is ordinal, in this case, the data was nominal and analyzed accordingly.

5.4.3 Control variables

This study included six control variables. Specifically, gender, age, previous study abroad, self-efficacy, personality, and cultural distance were controlled. Based on previous research linking demographic variables and CQ (Ng & Earley, 2006), participants were asked to report their gender and age. In order to rule out the possible effect of having previously participated in a study abroad program and gained experience interacting with culturally different others (Ang et al., 2006) participants were asked to report whether this was their first study abroad.

MacNab and Worthley (2012) suggested that individual’s self-efficacy, their level of confidence in their abilities to execute specific behaviors (Bandura, 1977), might influence CQ when examining the impact of individual characteristics. Therefore, self-efficacy was controlled using an established scale consisting of 23 items that uses a five-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’ to determine self-efficacy (Harrison, Chadwick, & Scales, 1996). The scale had been adapted in past research to the challenges of new cultural situations (Osman-Gani & Rockstuhl, 2009) and this version was utilized. This assessment of self-efficacy asked participants to rate their competency on two facets: general and social self-efficacy; expectations were measured based on past experiences and the tendency to attribute success to skill as opposed to chance. The first facet consisted of 17 items. Sample items included ‘When I make plans in a new culture, I am certain I can make them work’ and ‘I feel insecure about my ability to do things in a new culture’ (reverse scaled). The second facet included six items. Sample items included ‘When I’m trying to

become friends with someone in a new culture who seems uninterested at first, I don't give up easily' and 'I do not handle myself well in social gatherings in a new culture' (reverse scaled).

Cultural distance, "the extent to which different cultures are similar or different" has been widely accepted within IB research as an important construct to consider (Shenkar, 2001, p. 519). Varela and Gatlin-Watts (2014) suggested that cultural distance can influence the relationship between international experience and CQ development. They argued that some facets of CQ will be difficult to develop in larger cultural distances, where there is a clear and perceptible gap creating conditions where individuals become highly aware of cultural differences and may be more apprehensive in the foreign environment. Large cultural distances can significantly challenge an individual's behavior while in foreign environments, due to a perceived inability to communicate ideas and confusion about appropriate behaviors. These challenges may foster increased frustration and cause an individual to withdraw from participating in the learning environment, which may impact the development of CQ. In addition, some individuals may be challenged by small cultural distances due to assumed similarity between two cultures resulting in a lack of development of CQ. These individuals may withdraw from the learning environment under the assumption that they have the ability to communicate ideas and portray appropriate behavior (Varela & Gatlin-Watts, 2014). Accordingly, this study kept cultural distance controlled.

In order to measure cultural distance, I used the recommendations of Kogut and Singh (1988) to compute an index that represents the cultural gap between the country where the participant normally lives when not studying abroad and the country where they lived when they studied abroad. Kogut and Singh (1988) used Hofstede's (Hofstede, n.d.) indices for each of the cultural dimensions (power distance, uncertainty avoidance, masculinity/femininity and individualism/collectivism) to measure the deviation between two countries. I used the indices provided by Hofstede that were current at the time of analysis, which include 78 countries and calculated the variances as 451.59240 for power distance, 574.634199 for uncertainty avoidance, 373.551282 for masculinity/femininity and 528.674659 for individualism/collectivism. The equation used for calculating cultural distance was:

$$CD_j = \sum_{i=1}^4 \{(I_{ij} - I_{iu})^2 / V_i\} / 4$$

In the equation, CD_j refers to the cultural distance between the j th country from the country of interest; I_{ij} stands for the index for the i th cultural dimension and j th country; and V_i is the variance of the index of the i th dimension and u indicates the country where the participant normally lives when not studying abroad. It is important to note that the use of this scale is to

determine the cultural distance between the country where the participant normally lives and the country of their study abroad, thus it is used to measure the environment not the individual's relation to each dimension. The calculated cultural distances ranged from 0 (students who returned to their home-country for the study abroad) to 7.48673501 (the calculated cultural distance between Denmark and Japan). Two participants were not included in the analyses for cultural distance because they were originally from or studied abroad in a country that did not have indices available.

Finally, the Big Five Personality Characteristics (extraversion, agreeableness, conscientiousness, neuroticism (emotional stability), and openness) have been demonstrated to relate to CQ (Ang et al., 2006; Harrison, 2012; Şahin et al., 2014). Therefore, I controlled for the impact of personality. The Big Five Personality Characteristics were measured by an established 10 items short version of the Big Five Inventory (John, Donahue, & Kentle, 1991; Rammstedt & John, 2007) that uses a five-point Likert scale ranging from 'disagree strongly' to 'agree strongly'. Sample items included 'I see myself as someone who is outgoing, sociable' (extraversion), 'I see myself as someone who tends to find fault with others' (reverse scaled) (agreeableness), 'I see myself as someone who does a thorough job' (conscientiousness), 'I see myself as someone who is relaxed, handles stress well' (reverse scaled) (neuroticism), and 'I see myself as someone who has an active imagination' (openness).

5.4.4 Questionnaire pilot

Prior to inviting participants to complete the questionnaire, I chose a small group of individuals (n=7) to run a pilot study utilizing the full questionnaire. The main purpose of this pilot study was to ensure clarity of the language used throughout the questionnaire. The final data were collected in Denmark among a group of students who were non-native speakers of English, but who were fluent in English as it is the language of instruction used at their university. Therefore, to confirm language understanding and avoid instructional and interpretive miscomprehension of the questionnaire (Hardy & Ford, 2014) among individuals who were fluent in English as non-native speakers, I asked pilot study participants to provide feedback on the simplicity of instructions, overall time to complete the questionnaire, question clarity, and any spelling or grammar errors. These participants included one professor and six PhD students whose native languages were not English. In addition, all of the PhD students had previously completed a study abroad program. I considered the feedback from the pilot study participants and made the necessary revisions before the data collection began.

5.4.5 Final questionnaire

I developed the final questionnaire based on the pilot study. The questionnaire was developed in Survey Xact, an online survey tool, and consisted of 88 questions and statements. Survey Xact was chosen as the preferred data collection tool because of student familiarity, given its common usage at the participating university. A copy of the final questionnaire is provided in Appendix A. In addition to the instruments previously discussed, the questionnaire included a set of questions asked for the purpose of generating a report for the study abroad office of the participating university (see section 5.5). These questions asked for respondents' class standing, current course of study, willingness to communicate in cross-cultural situations, nationality, native language, level of fluency in additional languages they speak, and previous study abroad experience including information about the number and location(s) of any previous programs. Finally the questionnaire asked additional questions about their study abroad such as the type of courses they completed and the type of instruction used in the courses.

The questionnaire mainly consists of five sections excluding the brief introduction and contact information on the cover page. In addition, demographic and background information was collected on the introduction page including gender, age, class standing, current course of study, and the university where the student studied abroad. Section A of the questionnaire focuses on CQ and lists the 10 statements of the SFCQ. Section B measures self-efficacy and includes 17 items about general self-efficacy and six items about social self-efficacy. Section C includes 22 items about willingness to communicate in cross-cultural situations. Section D of the questionnaire lists 10 items regarding the Big Five Personality Characteristics. Among the 10 questions, two questions relate specifically to each of the personality characteristics: extraversion, agreeableness, conscientiousness, neuroticism, and openness. In the final section, Section E, students were asked to provide some additional background information, such as, nationality, native language, and previous study abroad experiences. This section also includes questions about the student's current study abroad program asking for information about the program components.

5.5 Data collection procedures

To facilitate the process of data collection, data was gathered through an online survey from university-level business students who participated in a study abroad program. To identify business students who participated in a study abroad program, I focused on universities and education management organizations with access to a database of business students where I

had a contact. In particular, universities and organizations with access to a large number of students who participated in multiple types of study abroad programs were sought. Once suitable universities and organizations were identified they were approached through the contact. The reason I adopted an online survey was to accommodate students who were participating in study abroad programs in locations around the world, and because students are familiar with online surveys (Babbie, 1990; Fowler, 2014). I also intended to use the same online survey tool utilized by the participating university or organization in order to ensure students' familiarity with that specific tool. Using an online survey helped to obtain more responses from the students and provided the lowest level of inconvenience to them.

The invitation emails were initially sent from my contact to the director of international programs of one university and the executive director of one education management organization, because these individuals were in a position to approve the distribution of my questionnaire to students. In addition to an invitation to participate in the study, the emails introduced me and provided information about my credentials to them. The email also contained a proposal for the intended study. The proposal included a brief description of the project and stated the necessary data collection processes and the intended outcomes of the project. Finally, the proposal also offered to provide a technical report based on the collected data and a subsequent meeting or workshop to discuss in greater detail the practical implications of the project, specific to their university or organization, the proposal is provided in Appendix B.

Of the contacted potential sources, the director of international programs of an international business school in Denmark responded with interest in being a part of the study. This university was initially targeted because of two important characteristics: 1) a large number of their students study abroad each year; and 2) their students participate in a variety of study abroad programs that, historically, encompassed each of the categories among the independent variables. Thus, because of these characteristics, this university showed potential for obtaining an adequate response rate within each of the categories of the independent variables required for statistical analysis (Field, 2009). Once it was agreed that this organization would participate in the study, no further universities or organizations were approached.

5.5.1 Participant access

The director of international programs of the participating institution was contacted in November 2013 and provided a research proposal outlining the aims of the research and their role in the data collection process, provided in Appendix B. After the director stated interest in

the project, all future communications were made with the outbound team leader for the international office.

In November 2013 the team leader confirmed the participation of the international office in the study. The team leader provided a list of all the countries and foreign institutions where students were studying abroad in order to develop the survey. However, due to privacy concerns, the team leader was unable to provide specific contact details and biographic data regarding the demographic characteristics of the students as initially requested. Therefore, all communication to the potential student respondents, including the distribution of the link to the questionnaire, was through the team leader for the international office. It was agreed that the team leader would send an email to the student email addresses registered with the international office inviting them to participate in the study. This was advantageous because the students received the invitation to participate email from a trusted source, their email addresses were more reliable, and the data collection was presented as a collaboration with the international office. In addition, this would ensure no emails were returned because they were unable to be delivered and increase the probability that all of the potential respondents would receive the invitation to participate. After the initial email inviting students to participate in the study, further communication with students was also disseminated through the team leader to students via email.

In order to participate in the study, students had to fulfill two basic conditions: 1) they were currently participating in a study abroad program or had just finished a study abroad program, and 2) the length of the study abroad program should be one semester. The team leader confirmed that all students participating in a study abroad program in the Fall 2013 semester adhered to these conditions and emailed the invitation to participate to all of them.

5.5.2 Participant communication

The invitation email, including the link to my questionnaire, was sent to students at the end of November 2013. The timing of the survey distribution was specifically selected because students were in the final weeks of their study abroad or had just finished their study abroad. This allowed for them to provide accurate information regarding their study abroad program and for timely measures of their CQ without recall bias (Golden, 1992). The questionnaire included a Participant Information Sheet (PIS) that clearly stated that participation was voluntary, data would be kept confidential and results of the study would be used in published academic work. In addition, it explained that the completion and submission of a survey would indicate consent to participate because all responses were anonymous. Finally, the PIS

explained that it was not possible to withdraw from the study once a survey was submitted because all responses were anonymous, and therefore not identifiable.

The invitation to participate email was sent to a total of 1,075 undergraduate and graduate business students from the team leader for the international office. A copy of the invitation email is provided in Appendix C. The email stated that the research project was being completed in collaboration with the international office. Furthermore, the invitation stated that students could provide their email address at the end of the survey in order to receive a CQ index report specific to their survey responses, which would be emailed to them. Within the email, students were directed to a link where the survey could be completed online. The initial email did not include a deadline by which potential participants must complete the survey to allow for multiple reminder emails to be sent to students.

After the initial invitation email was sent, a total of 189 surveys were partially or fully completed as of December 2013. I planned to send at least two emails to students reminding them to complete the questionnaire. However, shortly after the initial invitation email was sent to the students, due to unforeseen circumstances within the international office, it was determined that only one reminder email would be sent. Therefore, the timing of this reminder email was strategically planned. As many students would be traveling during the weeks after the end of their study abroad program and since this timeframe was close to the end of the year, I chose to wait until January 2014 to send the reminder email to accommodate potential respondents.

The reminder email was sent to all of the students who received the initial invitation to complete the questionnaire. A copy of the reminder email is provided in Appendix D. This email invited any students who had not already completed the survey to participate in the study. In addition, the email stated that all respondents who had requested a personalized CQ index report had received it. The survey remained available for completion until March 2014 at which point it was deactivated.

After the reminder email was sent a total of 190 new partially or fully completed questionnaires were collected. The total response to the survey was 379 questionnaires, a 35% response rate. However, as the questions asking respondents about their study abroad program components (the variables of interest), which were necessary for the data analyses, were at the end of the survey only fully completed questionnaires were included in the data analyses. Therefore, the final data collection included 230 fully completed surveys, a response rate of 21%. This response rate is similar to other studies that have sampled student populations without providing monetary rewards or extra course credit for participation (Crowne, 2013).

5.6 Tests for biases

5.6.1 Non-response bias

Non-response bias can significantly impact the results of a research project and impact the external validity of the study results (Viswesvaran, Barrick, & Ones, 1993; Werner, Praxedes, & Kim, 2007). Although the aim in any survey research project is to ensure representativeness between the sample and the population, studies have shown that a high response rate is not necessarily an indicator of accuracy among the data (Visser, Krosnick, Marquette, & Curtin, 1996). Therefore, a low response rate within survey research is not necessarily an indication that it will suffer from nonresponse bias (Krosnick, 1999). This study attempted to decrease non-response bias using techniques suggested by Rogelberg and Stanton (2007). These included careful consideration of the survey design and the length of the questionnaire. For example, I chose to measure personality through an established 10 items short scale (Rammstedt & John, 2007) as opposed to the 44 items full Big Five Inventory (John et al., 1991). I also established the importance of the survey specifically to business students who studied abroad and collaborated with the university to foster survey commitment. For example, in the invitation email it was explained why the research was important for business students, in particular, who participate in study abroad programs, including that will it provide quantifiable evidence of the learning outcomes of study abroad participation. I also offered an incentive to respondents and provided feedback in the form of a personalized CQ index report explaining what their measured CQ was, based on their responses to the questionnaire, and what it means. In addition, this report provided information about how to continue developing their CQ. Finally, I planned to send multiple reminder emails to student to complete the survey.

To explore potential non-response bias, I compared the CQ of the 115 respondents who fully completed the questionnaire after the initial email invitation was sent to the CQ of the additional 115 respondents who only fully completed the questionnaire after the reminder email was sent. This method of identifying non-response bias is based on the presumption that individuals who did not respond are more similar to individuals who responded after the reminder email was sent than to those who responded immediately (Creswell, 2009; Siebert, 2006; Visser, Krosnick, & Lavrakas, 2000). The average CQ of the group who completed the questionnaire after the initial invitation email was sent was 3.96 and the average CQ of the group who completed the questionnaire only after a reminder email was sent was 3.94. From the *t* test, the CQ of late responders did not significantly differ from those who responded

immediately ($t = 0.531$), suggesting less chance of a threat of non-response bias (Chen et al., 2014; Visser et al., 2000).

5.6.2 Social desirability bias

In survey research, social desirability bias can also influence the accuracy of the collected data. Social desirability is a well-established phenomenon that can occur when survey respondents over report admirable attitudes and behaviors and underreport attitudes and behaviors that may be seen as socially undesirable (Krosnick, 1999). Although the objective nature of the questions about respondent's study abroad program components may eliminate the potential threat of social desirability bias, the questions measuring CQ may be considered moderately sensitive to respondents because they ask about their perceptions and behaviors during their interactions with culturally different others. This study utilized a common approach for preventing social desirability bias when using single-shot self-report surveys from student samples, by guaranteeing the anonymity of survey responses both in the email invitation and in the introduction to the questionnaire (De Jong, Pieters, & Stremersch, 2012).

5.6.3 Common method bias

Common method variance can cause significant methodological bias when using self-report cross-sectional survey data (Chang, van Witteloostuijn, & Eden, 2010; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Spector (2006), however, suggests that the "automatic criticism of the cross-sectional self-report has become invoked so broadly and often so automatically that I argue it has achieved the status of a methodological urban legend" where it is based in truth but has been "exaggerated" (p. 222). Scholarly views regarding common method variance differ significantly. Campbell (1982) suggests that any research project that does not measure variables outside of a questionnaire "contributes very little" (p. 692). While other scholars argue that the problem of common method variance might be inflated (Crompton & Wagner, 1994; Spector, 1987). Within IB research, it is suggested that scholars follow the four main recommendations by Podsakoff and colleagues (2003) to address common method variance (Chang et al., 2010). These include using different sources to collect information about the independent and dependent variables, procedural remedies such as mixing question order, complex models of specification, and employing statistical remedies to detect and control any common method variance.

I adopted a few measures to identify and remedy any potential common method variance. First, questions that related to the independent variables and the dependent variable were located in different sections of the questionnaire. Second, participation in the study and

completion of the online questionnaire was voluntary, with potential respondents guaranteed that they could not be identified, which increased unbiased responses. In addition, only I had access to all completed questionnaires and only aggregated data was reported to the participating study abroad office. Last, common method variance is not usually a concern when the independent variables are not perceptual measures (Podsakoff & Organ, 1986), as is the case in this study where I gathered factual and objective information about respondents' study abroad programs.

In order to confirm that common method bias was not significantly threatening the validity of the findings, I performed a Harman's single factor test on the items included in my model (Podsakoff & Organ, 1986). In the case of common method bias, a single factor emerges from a factor analysis of all measurement items included in a study or one general factor accounts for most of the variance. The factor analysis revealed 19 factors with eigenvalues of more than one, the first of which (eigenvalue = 6.823) explained 13.65% of the total variance. As a result, the test suggests that there is no single background factor, thereby supporting the validity of the data.

5.7 Data analysis techniques

This study applied multiple linear regression using generalized linear models (GLIM) and pairwise comparisons employing the Statistical Package for the Social Sciences (SPSS) version 22 for data analyses and to test the hypotheses. I used multiple linear regression and pairwise comparisons in GLIM to analyze the data for several reasons. First, this type of analysis is appropriate for the type of data collected, which included nominal categorical independent variables that were based on objective and factual information, a mix of dichotomous categorical and continuous control variables, and a continuous dependent variable. Second, the use of multiple linear regression and pairwise comparisons provided answers to the posed research questions. Third, these data analysis techniques were determined after multiple and continuous consultations with qualified statisticians.

I also considered other data analysis techniques such as Analysis of Variance (ANOVA), Analysis of Covariance (ANCOVA), and the treatment of the independent variable data as continuous within multiple linear regression. However, each of these data analysis techniques was not as appropriate as multiple linear regression and pairwise comparisons using GLIM for the following reasons. ANOVA did not allow for control variables that have been demonstrated to impact CQ to be included when testing the hypotheses and it could not be used to test the model as a whole. ANCOVA was inappropriate because this study was not a

controlled experiment, random assignment to the categories within each study abroad program component was not possible, and there was no control group or a priori reference group. Treating the independent variable data as continuous was less appropriate than treating it as categorical because of how the responses on the questionnaire were stated and also because the aim of this study was not to predict CQ based on the level of immersion of the study abroad program components, but to determine if and how CQ differed between the levels of immersion of the program components.

The data collected from respondents' questionnaires were obtained from Survey Xact via Microsoft EXCEL. Only fully completed questionnaires were utilized, as the questions asking respondents about their study abroad program components, which were necessary for the data analyses and to test the hypotheses, were at the end of the questionnaire. The data were coded in Microsoft EXCEL and inspected to ensure that there were no values outside the specified ranges. After the data were coded, it was transferred to SPSS. The initial data analyses for the multiple linear regression was carried out in six steps: 1) identification of potential outliers, 2) distribution of the data, 3) tests for normality, 4) examinations for independence and minimum response frequency, 5) test for homogeneity of variance, and 6) test for multicollinearity.

After completing the diagnostic tests of the data, I performed the multiple linear regression analysis to test the hypotheses and determine if there were significant differences in mean CQ between the categories of the independent variables. For this, I utilized the overall Type 3 tests of model effects, which indicate if there are significant differences in mean CQ dependent on each variable in the model. After examining the hypotheses, post hoc analyses were completed utilizing pairwise comparisons to answer the research question that queried how mean CQ differed between the levels of immersion within each independent variable where a significant difference was indicated by the results of the hypotheses tests. The next sections describe how the data were coded, diagnostic tests were completed, hypotheses were tested, and post hoc analysis completed.

5.7.1 Data coding

All of the data were first appropriately coded into numeric values. The 10 items to measure CQ were individually coded, where the response 'Not at all' was coded as 1, 'A little' was coded as 2, 'Somewhat' was coded as 3, 'A lot' was coded as 4, and 'Extremely' was coded as 5. Once all of the data were coded, all of the individual scores were averaged by dividing the total score by 10.

The five study abroad program component's categories were also coded to allow for data analyses. For the question measuring entry target-language competence, the response 'None' was coded as 1, 'Elementary to intermediate' was coded as 2, 'Intermediate to pre-advanced' was coded as 3, 'Pre-advanced to advanced' was coded as 4, and 'Advanced' was coded as 5. For the question measuring language of instruction used in course-work, the response 'English only' was coded as 1, 'English and the native language of the country' was coded as 2, 'Predominately in the native language of the country' was coded as 3, and 'In the native language of the country in all courses and extracurricular activities' was coded as 4. For the question measuring type of housing, the response 'Collective with other study abroad students (i.e. dorm rooms)' was coded as 1, 'Collective with students from the local university (i.e. dorm rooms)' was coded as 2, 'Home stay with other study abroad students' was coded as 3, 'Apartment rental' was coded as 4, and 'Individual home stay with a local family' was coded as 5. The question measuring opportunities for cultural interaction/experiential learning, the response 'There are/were no opportunities for cultural interaction or experiential learning provided' was coded as 1, 'There are/were some limited opportunities for cultural interaction or experiential learning provided' was coded as 2, 'There are/were regular and optional participation opportunities for cultural interaction or experiential learning provided' was coded as 3, and 'There are/were regular and required participation opportunities for cultural interaction or experiential learning provided' was coded as 4. For the question measuring opportunities for guided reflection on the cultural experience, the response 'There were no guided reflections or cultural orientation/information sessions offered' was coded as 1, 'There was an orientation program that included information about culture' was coded as 2, 'There was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad' was coded as 3, and 'There were opportunities to reflect on the cultural experience such as mentoring, courses in cultural perspectives, opportunities to write or research culture among others' was coded as 4.

The control variables were also coded for data analyses. The control variable gender was coded as 0 for females and 1 for males. The variable previous study abroad was coded as 0 for no and 1 for yes. The 23 items to measure self-efficacy were individually coded; this instrument included 14 reverse scale questions. For the nine items that were not reversed scaled the response 'Strongly disagree' was coded as 1, 'Disagree a little' was coded as 2, 'Neither agree or disagree' was coded as 3, 'Agree a little' was coded as 4, and 'Strongly agree' was coded as 5. For the 14 items that were reverse scaled the opposite coding was used. For example, the response 'Strongly disagree' was coded as 5, and the response 'Strongly agree' was coded as 1. Once all of the data were coded, all of the individual scores were

averaged by dividing the total score by 23. The 10 items to measure personality were also individually coded. For each of the Big Five Personality Characteristics the scale included one question that was reverse scaled and one question that was not reverse scaled. For the five items that were not reversed scaled the response 'Disagree strongly' was coded as 1, 'Disagree a little' was coded as 2, 'Neither agree or disagree' was coded as 3, 'Agree a little' was coded as 4, and 'Agree strongly' was coded as 5. For the five items that were reverse scaled the opposite coding was used. For example, the response 'Disagree strongly' was coded as 5, and the response 'Agree strongly' was coded as 1. Once all of the data were coded, all of the individual scores within each personality characteristic were averaged by dividing the total score by two.

5.7.2 Identification of potential outliers

Outliers are described as responses within a data set that are far from other responses and fall significantly outside accepted statistically defined ranges (Field, 2009; Moore & McCabe, 1999; Tabachnick & Fidel, 2007). They are important because they can cause misleading results during statistical analyses. Outliers within a data set can cause estimate bias, distort statistical tests, affect model fit and increase errors, and lead to inaccurate conclusions (MacCallum, 1995; Tabachnick & Fidel, 2007). Identifying outliers, understanding how they may be affecting the data analyses, and dealing with them are therefore important when completing statistical analysis. In this study, box plots were used to identify outliers within the data sets of the continuous variables. Box plots are appropriate in order to identify outliers (Field, 2009). They graphically depict the spread of the data within accepted statistically defined ranges, and identify any responses outside of these ranges as outliers (Frigge, Hoaglin, & Iglewicz, 1989).

5.7.3 Distribution of the data

The distributional properties of the data are analyzed in order to gain a greater understanding of the data and the underlying structures of the continuous variables; a critical step for judging the credibility of the findings (Zhang & Shaw, 2012). Examining the data to reveal its structural secrets is the main role of this analysis (Hartwig & Dearing, 1979). In this study the dispersion of the data was examined and checked for accuracy by calculating minimum values, maximum values, means, and standard deviations among the continuous variables.

5.7.4 Tests for normality

Normal distribution is the most commonly used distribution in statistical analysis (Field, 2009). Parametric tests are powerful tools for detecting minor differences if the assumption of normality of the data is met (Field, 2009). The dependent variable is continuous and multiple linear regression analysis was utilized, which requires the assumption of normality. Using histograms for visual inspection and the Kolmogorov-Smirnov (K-S) normality test, the data distributions were checked for all continuous variables. When the K-S test is significant ($p \leq 0.05$) this indicates that the data are not normally distributed (Field, 2009; Tabachnick & Fidell, 2007). This test, however, is not always reliable in large samples ($N > 100$) and should be examined in conjunction with additional measures of normal distribution (Field, 2009).

An additional statistical analysis test for normality includes reviewing the values of skewness and kurtosis of the distribution of the data (Curran, West, & Finch, 1996; Field, 2009). Skewness is the measure of asymmetry of the distribution of the data, while kurtosis is the measure of the similarity of the distribution of the data to a normal distribution (Field, 2009). The values of the skewness and kurtosis were utilized to determine to what extent the distribution of the data was different from a normal distribution.

5.7.5 Examinations for independence and minimum response frequency

In this study, the study abroad program components are the independent variables and are categorical. When utilizing nonparametric data, such as categorical variables, two assumptions of the data must be met (Field, 2009). The first is the independence of that data, where the categories are mutually exclusive and exhaustive (Breakwell et al., 2006; Field, 2009). If the independence of data assumption is not met, then the chi-square test statistic is not meaningful (Field, 2009). The independence of the data is met because, all of the possible categories within each study abroad program component were included and provided in the questionnaire as potential responses to the questions used to assess them. In addition, each participant could only select one response from the options provided when answering the survey questions about their study abroad program components.

The second assumption relates to the frequency of responses within each category and requires a minimum number of responses within each category for accurate data analysis. Each category should have at least one response and no more than 20% of the categories should have less than five responses (Field, 2009; Howell, 2006). If more than 20% of the categories have less than five responses, this causes a loss of statistical power where the test fails to

identify an effect (Field, 2009). In this study, all of the categories within the independent variables were reviewed to ensure that they had the minimum number of responses.

5.7.6 Test for homogeneity of variance

Homogeneity is an assumption in linear regression analysis that the categories within the independent variables have similar or equal variances (Field, 2009). In this study, the homogeneity of variance among each of the categorical independent variables was tested utilizing the Levene's test (Field, 2009; Levene, 1960), which uses ANOVA to identify if the variances between the categories of the independent variables are equal. A significant Levene's test statistic ($p \leq 0.05$) indicates that the assumption of homogeneity of variance has been violated because, the variances among the categories within the independent variables are significantly different.

5.7.7 Test for multicollinearity

Multicollinearity exists within a data set when two or more predictor variables included in a multiple regression model are strongly correlated and as a result, provide redundant information regarding the response. When multicollinearity is present within a data set it causes three main problems. First, it increases the standard error of the regression coefficient (Field, 2009). Second, it limits the size of the R and impacts the amount of variance accounted for by the variables included in the model. Third, it makes it difficult to assess the importance of the independent variables included in the model (Field, 2009). The first step for assessing multicollinearity is reviewing a correlation matrix with Pearson's correlation coefficients to identify any substantial correlations among the continuous and dichotomous predictor variables. Following the rule of thumb suggested by Schmidt and Muller (1978), an indicator of possible collinearity is a correlation coefficient between any two variables that is greater than 0.80.

Multicollinearity among the continuous and dichotomous variables included in the regression model was tested by calculating the variance inflation factor (VIF) values, which indicate if there are strong linear relationships between variables. A VIF value less than five is generally accepted to imply that multicollinearity is not an issue (Craney & Surles, 2002; Hair, Ringle, Sarstedt, 2011). In addition to the VIF, the tolerance statistic was also calculated and was used as an additional indicator of multicollinearity. When using the tolerance statistic, values below 0.2 suggest the presence of multicollinearity within the data (Menard, 1995).

5.8 Tests of main effects

To test the main effect of the study abroad program components on CQ, GLIM via SPSS was utilized. GLIM expands on general linear models, by linearly relating the dependent variable to the factors and/or covariates through a link function (Nelder & Wedderburn, 1972). Although it allows for non-normal distributions of the dependent variable, for a normally distributed continuous response GLIM uses linear regression statistical models and the identity link function, where the dependent variable is not transformed. GLIM uses maximum likelihood estimation, rather than ordinary least squares.

In this study, the response is the continuous variable CQ and the predictors are the five categorical study abroad program components and 10 binary and/or continuous control variables. The control variables include: gender, previous study abroad, age, self-efficacy, the Big Five Personality Characteristics, and cultural distance. In building the model to test for main effects, the factors are the categorical predictors and the covariates are the continuous predictors. GLIM dummy codes the categorical independent variables, and I chose the lowest level of immersion for each of the program components as the baseline group for comparisons. The control variables are entered into the model first, followed by the independent variables. The model type is main effects, which creates a main-effects term for each of the variables entered into the model. For the parameter estimates, maximum likelihood, which jointly estimates the scale parameter with the model effects was utilized (Landau & Everitt, 2004).

The fit of the model is assessed using the omnibus test, which compares the fitted model against the intercept-only model, and generates a significant likelihood ratio statistic that indicates that the predictors in the model are significantly effecting the outcome variable (Nelder & Wedderburn, 1972). In addition to the likelihood ratio statistic, I also obtained the R^2 value for the model variance in CQ accounted for when only the control variables were in the model, and when the independent variables were added. In addition, I obtained the change in R^2 value to compare the models.

5.8.1 Tests of the hypotheses

GLIM allows for both Type I and Type III analyses. When there are a priori reasons for ordering the predictors in the model, Type I analysis is appropriate. Type III analysis does not include ordering among the predictors and are more generally appropriate. This study had no a priori reasons for ordering the independent variables within the model and therefore, utilizes Type III analysis.

The tests of main effects of the model utilizes the Wald chi-square test statistic, where a significant Wald test statistic ($p \leq 0.05$) indicates that the predictor is having an effect on the dependent variable, or that one or more of the categories within an independent variable is significantly different from one or more of the other categories within the same independent variable with respect to the dependent variable (Engle, 1984). GLIM provides an overall test of the effect of each of the categorical variables as a whole. This test statistic was utilized for the hypotheses testing, where a significant Wald test statistic indicated that the null hypothesis, the mean differences between the categories of the independent variable are not significantly different, should be rejected. For each of the study abroad program components, the significance of the Wald test statistic determined whether the stated hypotheses were accepted or rejected.

5.8.2 Post hoc tests of pairwise comparisons

Following the completion of the multiple linear regression analyses using GLIM, which tested the main hypotheses, pairwise comparisons were utilized to determine the differences in mean CQ between the levels of immersion within each of the study abroad program components. The categories of the independent variables represent the level of immersion of each of the study abroad program components, such that, a lower level of immersion is represented by the first category. For example, for the study abroad program component language of instruction used in course-work, the lowest level of immersion is represented by the response 'English only', and the highest level of immersion is represented by the response 'In the native language of the country in all courses and extracurricular activities'. Each independent variable included multiple levels, making pairwise comparisons appropriate to understand and test differences between all of the levels of immersion (Field, 2009). Simple pairwise comparisons determine the significance of the difference between the estimated mean CQ of each of the pairs of categories. A significant mean difference indicates that one of the categories has a significantly higher or lower estimated mean CQ than the comparison category. The pairwise comparisons were completed within GLIM because it keeps the control variables included in the model constant, before completing the comparisons.

Chapter 6. ANALYSIS AND RESULTS

6.1 Introduction

The data analysis and results explain how the data were analyzed and what was found from these analyses, and provide empirical evidence used for testing the hypotheses and answering the research questions (Zhang & Shaw, 2012). In this study, the research questions aim to determine the relationship between international experience and CQ in greater detail. This is done by using study abroad as the type of international experience and unpacking it, to consider how different program components affect CQ. The hypotheses detailed in Chapter 4 predict the effect of each of the study abroad program components, the independent variables, on CQ, the dependent variable. In addition, the differences in mean CQ between the levels of immersion of each of the study abroad program components were analyzed. GLIM was utilized in order to test the model and the main effect of the predictors in the model, which included five independent variables and one dependent variable. The model also included 10 control variables. Further to this, post hoc analyses in the form of pairwise comparisons were completed to examine the mean differences in CQ between the categories of the independent variables. Through these two methods, the hypotheses were tested and the results were obtained, and the research questions were answered. The previous chapter, discussed how and why the data were collected, and detailed the reasons for using GLIM and pairwise comparisons to investigate the hypothesized relationships and research questions.

In this chapter, I present the results of the statistical analyses. First, I explain the steps of the data preparation. Next, I provide the descriptive statistics of the study participants. Then, I discuss the data analyses including the results of the tests to identify outliers, the analysis of the distributional properties of the data, the normality tests, the independence and minimum response examinations, and the homogeneity of variance tests. Last, I present the results of the hypotheses tests and the pairwise comparisons analyses.

6.2 Data preparation

All of the data from the completed online surveys were obtained from Survey Xact in Microsoft EXCEL and appropriately coded into numeric form as outlined in section 5.7.1. The accuracy of the data was manually checked by reviewing the data set, to confirm that no values were outside of the specified ranges and to identify any potentially contaminating response styles (Baumgartner & Steenkamp, 2001). I reviewed the responses for each completed questionnaire and confirmed that no straight-lining, where a respondent selects the same response for each question in order to decrease the duration of the survey, occurred

(Kaminska, McCutcheon & Billiet, 2010). The online survey tool did not allow respondents to move from one section of the survey to the next, without answering all of the questions in the previous section. All of the questions in the survey had to be answered before a respondent could submit the questionnaire. Missing data can be problematic and researchers have demonstrated that ignoring missing data can create problems when estimating model parameters (Lord, 1980). In order to ensure that there were no missing data, only fully completed questionnaires that were submitted were utilized in the data analysis, despite having access to the responses from partially completed questionnaires. Cultural distance, in the context of this study is the calculated distance between the respondents' home-country and the location of their study abroad, was used as a control variable and calculated based on published lists (Hofstede, n.d.). A cultural distance score could not be calculated for two respondents because they studied abroad in countries that were not included in these published lists. As a result, these two respondents' questionnaires were removed from the data analyses. Once the data were coded and reviewed, it was entered into SPSS for further analysis.

6.3 Descriptive statistics

An email invitation to participate in this study was sent in November 2013 to a total of 1,075 undergraduate and graduate business students who were studying abroad. A subsequent email was sent in January 2014 reminding the students to participate in the study. Of the contacted potential participants, 230 fully completed and submitted questionnaires were obtained. As mentioned in section 6.2, two of the respondents' questionnaires were removed from further data analyses because their cultural distance scores could not be calculated. As a result, the final sample consisted of 228 respondents, whose questionnaires were utilized for data analyses.

A widely used criterion for determining the minimum sample size necessary, is that the minimum sample size is five times the number of variables included in the model (Hatcher & Barends, 1996; Tabachnick & Fidell, 2007). The number of questionnaires utilized in this study, 228, fulfills this recommendation (5×16). In addition to this recommendation, I used the suggestions of Green (1991) to calculate the minimum sample size needed for regression analysis. His first rule of thumb recommends that, in order to test the overall model it is necessary to have a minimum of $50 + 8k$ cases, where k represents the number of predictors included in the model. His second rule recommends $104 + k$ cases when testing individual predictors. Green (1991) also recommends completing both of these calculations and using the larger of the two values. For this study, there are five independent variables and 10 control variables equaling a total of 15 predictors in the model. According to the first

recommendation, this study requires at least 170 cases and according to the second, it requires 119 cases. As this study includes 228 cases, it has more than the largest value calculated using the two recommendations, 170. Therefore, the sample size was sufficient for data analysis.

The respondent profile is presented below in Table 6.1. As shown, 119 (52.2%) of the respondents were female and the remaining 109 (47.8%) were male. Undergraduate business students accounted for 134 (58.8%) of the respondents and the remaining 94 (41.2%) respondents were graduate business students. The age of the respondents varied from 20 to 30 years, and the average age was 23.5 years. The majority of the respondents, 166 (72.8%), were Danish. In addition, 188 (82.5%) of the respondents lived in Denmark permanently when they were not studying abroad. Danish was the native language of the majority of respondents, 162 (71.1%), and all of the respondents reported that they spoke more than one language. 87 (38.2%) respondents indicated that this was not their first study abroad while the remaining 141 (61.8%) respondents reported that this was their first study abroad.

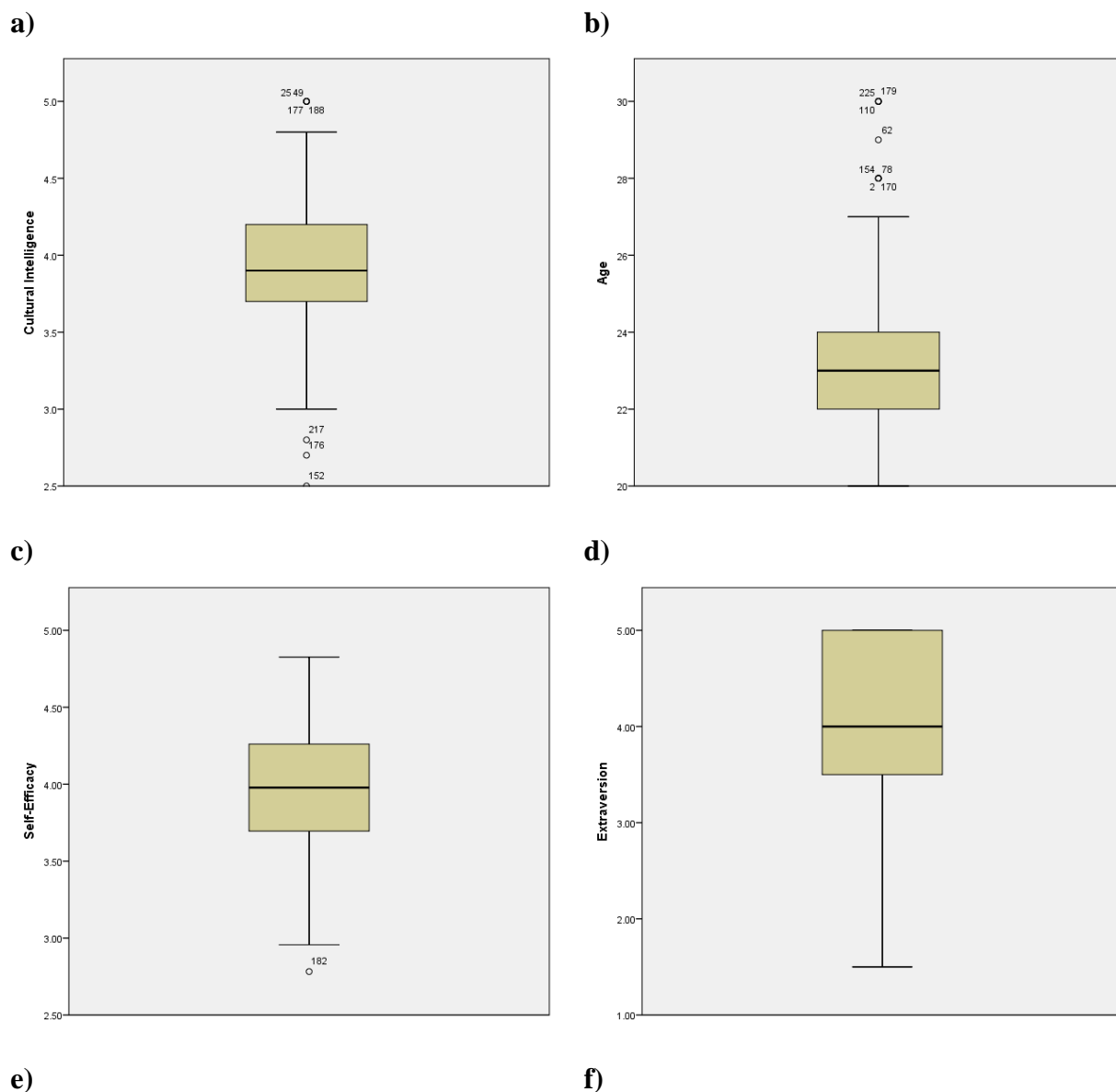
Table 6.1 Study participant's respondent profile.

Category	Frequency	Percentage	Category	Frequency	Percentage
Gender			Nationality		
Female	119	52.2	Danish	166	72.8
Male	109	47.8	Italian	15	6.6
			Norwegian	12	5.3
			Swedish	12	5.3
			German	10	4.4
			Bulgarian	3	1.3
			Finnish	3	1.3
			Lithuanian	2	0.9
			Brazilian	1	0.4
			Canadian	1	0.4
			French	1	0.4
			Icelander	1	0.4
			Macedonian	1	0.4
Age			Native language		
20	5	2.2	Danish	162	71.1
21	12	5.3	Italian	15	6.6
22	50	21.9	Swedish	13	5.7
23	62	27.2	Norwegian	12	5.3
24	48	21.1	German	10	4.4
25	19	8.3	Bulgarian	3	1.3
26	18	7.9	English	3	1.3
27	5	2.2	French	3	1.3
28	4	1.8	Lithuanian	2	0.9
29	1	0.4	Croatian	1	0.4
30	4	1.8	Finnish	1	0.4
			Icelandic	1	0.4
			Macedonian	1	0.4
			Portuguese	1	0.4
Class standing			First study abroad		
Undergraduate	134	58.8	No	87	38.2
Graduate	94	41.2	Yes	141	61.8

6.4 Data analysis

6.4.1 Outlier identification

The data for the continuous variables: CQ, age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness and cultural distance, were analyzed separately using boxplots (Field, 2009; Tabachnick & Fidell, 2007). The boxplot provides a graphical depiction of the spread of the data showing the highest and lowest values (excluding outliers), the top and bottom 25% of the data, the middle 50% of the data, and the median (Frigge et al., 1989; Tukey, 1977). The boxplot also shows any mild and/or extreme outliers (Field, 2009). In SPSS, the outliers are indicated by a black open dot in the case of a mild outlier and by a star in the case of an extreme outlier. Figure 6.1a-i depicts the results of the outlier analysis for each of the continuous variables.



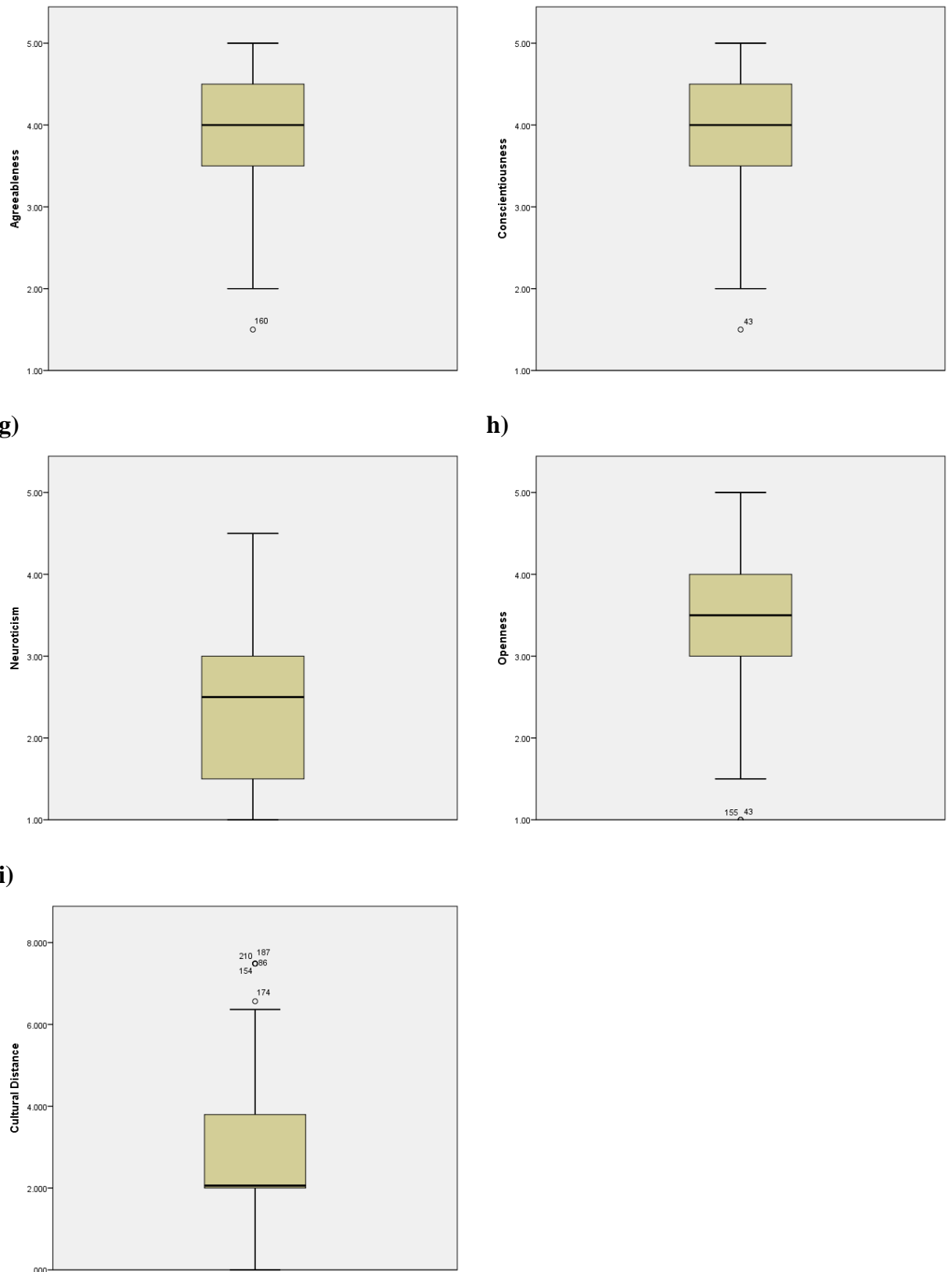


Figure 6.1 Boxplots of the continuous variables distributions for a) CQ, b) age, c) self-efficacy, d) extraversion, e) agreeableness, f) conscientiousness, g) neuroticism, h) openness, and i) cultural distance.

There were seven mild outliers within the CQ data. Among the control variables, there were eight mild outliers within the age data, one mild outlier within the self-efficacy data, one mild

outlier within the agreeableness personality characteristic data, one mild outlier within the conscientiousness personality characteristic data, two mild outliers within the openness personality characteristic data, and five mild outliers within the cultural distance data. The extraversion and neuroticism personality characteristics data showed no outliers. Each outlier within the data was inspected to ensure that no errors occurred during the data coding process. Two recommendations for dealing with outliers are to remove the case from the data analysis or use the next highest score plus one method (Field, 2009). However, outliers found within forced response scales (5-point Likert scale) may not distort the results significantly, and since they were identified as mild outliers, the observations were retained in the data set for further analyses.

6.4.2 Summary of the distributional properties of the variables

Statistical characteristics related to data dispersion, including the minimum and maximum values, means and standard deviations, were calculated and reviewed. The categorical independent variables and binary/dichotomous control variables were excluded from these calculations. The results of these investigations are presented below in Table 6.2.

Table 6.2 Data dispersion characteristics for the dependent variable (CQ) and the control variables (age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness and cultural distance).

Variable	Sample size	Minimum	Maximum	Mean	Standard deviation
CQ	228	2.50	5.00	3.96	0.42
Age	228	20.00	30.00	23.55	1.85
Self-efficacy	228	2.80	4.80	3.95	0.43
Extraversion	228	1.50	5.00	3.99	0.93
Agreeableness	228	1.50	5.00	3.87	0.74
Conscientiousness	228	1.50	5.00	3.92	0.83
Neuroticism	228	1.00	4.50	2.34	0.93
Openness	228	1.00	5.00	3.52	0.81
Cultural distance	228	0.00	7.50	2.75	1.52

Note: The independent variables study abroad program components and control variables gender and first study abroad were excluded from the table because they are multilevel categorical or dichotomous.

With the exception of age and cultural distance, the variables were measured with unidirectional scales, where the low-to-high positive integers ranged from one to five. As an indicator of symmetry, and to confirm that the mean was a representative score of the data, the means for these variables were inspected to ensure that they were all more than twice their standard deviation (Bedeian, 2014). Furthermore, the standard deviations were examined to ensure they did not exceed their maximum possible values, by confirming that they were all less than half the range $((5-1)/2 = 2)$ (Bedeian, 2014).

6.4.3 Normality tests

In this study, the normality of the continuous dependent variable (CQ) and the continuous control variables (age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness and cultural distance) were initially tested through the visual inspection of histograms and then through the K-S test. While the histograms with normality curves appeared to be normal for some variables, the K-S test statistics, as shown below in Table 6.3, was significant for all of the variables except for self-efficacy ($p \leq 0.05$). A significant K-S test statistic indicates that the null hypothesis, which states that the data are normally distributed, be rejected (Field, 2009). As a result, the null hypothesis was rejected for all of the variables except for self-efficacy.

Table 6.3 Results of the K-S test for the dependent variable (CQ) and control variables (age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, and cultural distance).

Test for normality ^a				
Variable	Kolmogorov-Smirnov ^b			Decision
	Statistic	df	Sig. ^c (p)	
CQ	0.09	228	0.00	Reject the null hypothesis ^d
Age	0.18	228	0.00	Reject the null hypothesis ^d
Self-efficacy	0.05	228	0.20*	Accept the null hypothesis ^d
Extraversion	0.17	228	0.00	Reject the null hypothesis ^d
Agreeableness	0.14	228	0.00	Reject the null hypothesis ^d
Conscientiousness	0.16	228	0.00	Reject the null hypothesis ^d
Neuroticism	0.13	228	0.00	Reject the null hypothesis ^d
Openness	0.13	228	0.00	Reject the null hypothesis ^d
Cultural distance	0.19	228	0.00	Reject the null hypothesis ^d
* This is a lower bound of the true significance.				
^a The independent variables study abroad program components and control variables gender and first study abroad were excluded from the test for normality as a result of being multilevel categorical or dichotomous.				
^b Lilliefors Significance Correction.				
^c The significant level for the K-S test is 0.05.				
^d The null hypothesis for the K-S test that the variable is normally distributed.				

Although the K-S test statistic can indicate whether a distribution of data is normal, a significant K-S test statistic does not provide insight about the degree to which the distribution of the data deviates from normality. A significant K-S test statistic also does not necessarily indicate whether the deviation of the distribution of the data from normality is significant enough that it will bias further statistical analyses performed using the data (Field, 2009). In addition, the K-S test statistic can be significant in large samples ($N > 100$), as is the case in this study, even when the distribution of the data only deviates slightly from a normal distribution (Field, 2009). Therefore, a subsequent statistical test for normality, to identify the extent to which the distribution of the data deviated from a normal distribution, was completed by examining the skewness and kurtosis measures of the data.

Skewness provides a measure of the asymmetry of the distribution of data, and a variable is considered skewed when the center of the distribution is not its mean (Tabachnick & Fidel, 2007). A normal or symmetrical distribution has a skewness value of zero. An asymmetrical distribution with a concentration of scores to the left of the mean (lower values) and a long tail to the right of the mean (higher values) has a positive skewness value (Tabachnick & Fidel, 2007). An asymmetrical distribution with a concentration of scores to the right of the mean (higher values) and a long tail to the left of the mean (lower values) has a negative skewness value (Tabachnick & Fidel, 2007). Kurtosis refers to the degree of data clustering at the tails of the distribution and the peakedness of the distribution (Field, 2009). Similar to skewness, a normal or symmetrical distribution has a kurtosis value of zero. An asymmetrical distribution that is peaked with many scores in the tails has a positive kurtosis value and an asymmetrical distribution that is flat with few scores in the tails has a negative kurtosis value (Field, 2009; Tabachnick & Fidel, 2007).

Skewness and kurtosis values between -2 and +2, and -7 and +7, respectively, are generally considered to indicate that the distribution of the data is approximately normal (Curran et al., 1996; West et al., 1995). However, in this study I relied on the more commonly used conservative rule of thumb that distributions where skewness values between -1 and +1 and kurtosis values between -2 and +2 are considered to approximate a normal distribution. Although the data distributions of the variables were previously identified as non-normal using the K-S test, the data distributions of the variables can be considered to have satisfied the assumption of normality if their skewness and kurtosis values fall within the above mentioned conservative acceptable ranges. As shown through Table 6.4 below, the skewness and kurtosis values of the data distributions for all of the variables (CQ, age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness and cultural distance) were within the acceptable ranges. Thus, the distributions of the data for all of the variables satisfied the assumption of normality.

Table 6.4 Skewness and kurtosis values for the dependent variable (CQ) and control variables (age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, and cultural distance).

Test for normality ^a				
Variable	Skewness ^b		Kurtosis ^c	
	Value	Standard error	Value	Standard error
CQ	-0.17	0.16	0.60	0.32
Age	1.07	0.16	1.81	0.32
Self-efficacy	-0.28	0.16	-0.41	0.32
Extraversion	-0.72	0.16	-0.34	0.32
Agreeableness	-0.30	0.16	-0.24	0.32
Conscientiousness	-0.32	0.16	-0.75	0.32
Neuroticism	0.42	0.16	-0.43	0.32
Openness	-0.21	0.16	0.01	0.32
Cultural distance	0.61	0.16	0.66	0.32
^a The independent variables study abroad program components and control variables gender and first study abroad were excluded from the test for normality as a result of being multilevel categorical or dichotomous.				
^b Data approximates a normal distribution when Skewness values are between -1 and +1.				
^c Data approximates a normal distribution when Kurtosis values are between -2 and +2.				

6.4.4 Independence and minimum response frequency examinations

In this study, the independent variables are categorical and each independent variable includes multiple levels. The categories within each of the study abroad program components represent the level of immersion of the program components. In order to utilize categorical data within multiple linear regression analysis, it is necessary to have a minimum number of responses within each category to prevent losses in the statistical power of the analysis (Field, 2009). According to Howell (2006), each category should have at least one response and no more than 20% of the categories should have fewer than five responses. The frequency of responses within each of the independent variables was examined to ensure that the minimum response requirements were fulfill. Initially, the category ‘no opportunities’ within the variable opportunities for cultural interaction/experiential learning had only three responses. As this was the only category among all the categories of the independent variables that had fewer than five responses, I combined it with the ‘limited opportunities’ category to reduce the

difference in response frequency within this variable (Field, 2009). After this adjustment, as shown in Table 6.5 below, the response frequency of each category within each of the independent variables has the minimum number of responses required for inclusion in subsequent data analyses.

Table 6.5 Results of the response frequency examinations of the independent variable categories (entry-target language competence, language of instruction used in course-work, type of housing, opportunities for cultural interaction/experiential learning, and opportunities for guided reflection on the cultural experience).

Independent variables response frequency			
Variable	Category	Frequency	Percent
Entry-target language competence	None	51	22.4
	Elementary to intermediate	35	15.4
	Intermediate to pre-advanced	46	20.2
	Pre-advanced to advanced	49	21.5
	Advanced	47	20.6
Language of instruction used in course-work	English only	171	75.0
	English and host-country language	39	17.1
	Predominantly in host-country language	6	2.6
	In host-country native language in all courses	12	5.3
Type of housing	Dorms with study abroad students	64	28.1
	Dorms with host university students	48	21.1
	Home stay with other study abroad students	22	9.6
	Apartment rental	80	35.1
	Individual home stay	14	6.1
Opportunities for cultural interaction/experiential learning	No or limited opportunities	43	18.9
	Regular and optional opportunities	155	68.0
	Regular and required opportunities	30	13.2
Opportunities for guided reflection on the cultural experience	None	58	25.4
	Orientation only	103	45.2
	Orientation and additional sessions	39	17.1
	Multiple opportunities	28	12.3

6.4.5 Homogeneity of variance test

Linear regression requires the variances of the categories or levels of the independent variables to be equal (Field, 2009). In this study, the homogeneity of the categorical independent variables (entry-target language competence, language of instruction used in course-work, type of housing, opportunities for cultural interaction/experiential learning, and opportunities for guided reflection on the cultural experience) was examined using the Levene's tests, which

tests the null hypothesis that the variances between the categories are the same. An insignificant Levene's test ($p > 0.05$) indicates that the independent variables meet the assumption of homogeneity of variance. Table 6.6 below shows the results of the Levene's test for each of the independent variables.

Table 6.6 Results of the homogeneity test for the independent variables (entry-target language competence, language of instruction used in course-work, type of housing, opportunities for cultural interaction/experiential learning, and opportunities for guided reflection on the cultural experience).

Test for homogeneity ^a					
Variable	Levene statistic	df1	df2	Sig. ^b (p)	Decision
Entry-target language competence	1.55	4	223	0.19	Accept the null hypothesis ^c
Language of instruction used in course-work	0.06	3	224	0.98	Accept the null hypothesis ^c
Type of housing	0.54	4	223	0.71	Accept the null hypothesis ^c
Opportunities for cultural interaction/experiential learning	0.22	2	225	0.81	Accept the null hypothesis ^c
Opportunities for guided reflection on the cultural experience	0.08	3	224	0.97	Accept the null hypothesis ^c
^a Dependent variable: CQ. ^b The Levene's test is significant at $p \leq 0.05$. ^c The null hypothesis is that the variable has equal variances.					

For each of the five independent variables, the Levene's test was insignificant indicating that the variances of the categories were equal. As a result, the independent variables meet the assumption of homogeneity.

6.4.6 Multicollinearity test

Multicollinearity occurs when two or more predictor variables that are included in a regression model provide redundant information because they are highly correlated. Identifying multicollinearity is important to ensure the accurate interpretation of statistical analyses. To assess multicollinearity, the correlation coefficients for the predictor variables gender, age, first study abroad, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, and cultural distance were reviewed. Table 6.7 below shows the correlation

coefficients for the variables. Correlation coefficient values less than 0.80 are generally considered to indicate that there is no risk of collinearity (Schmidt & Muller, 1978).

Table 6.7 *Correlation coefficients for the control variables (gender, age, first study abroad, extraversion, agreeableness, conscientiousness, neuroticism, openness, self-efficacy and cultural distance) and the dependent variable (CQ).*

Variable	1	2	3	4	5	6	7	8	9	10
1 Gender										
2 Age	0.17**									
3 First study abroad	-0.06	-0.29**								
4 Extraversion	-0.15*	-0.08	0.00							
5 Agreeableness	-0.13*	-0.01	0.08	0.18**						
6 Conscientiousness	-0.12*	0.04	-0.03	0.26**	0.20**					
7 Neuroticism	-0.32**	-0.12*	0.01	-0.22**	-0.16**	-0.16**				
8 Openness	-0.09	-0.03	0.11*	0.09	0.04	0.09	-0.05			
9 Self-efficacy	0.05	-0.05	-0.03	0.39**	0.27**	0.41**	-0.35**	0.27**		
10 Cultural distance	0.09	-0.11*	-0.01	-0.09	-0.13*	0.02	-0.14*	0.07	-0.09	
11 CQ	-0.00	-0.03	-0.01	0.20**	0.06	0.25**	-0.14*	0.06	0.39**	0.04

Notes: Gender (0 = Female, 1 = Male), First Study Abroad (0 = No, 1 = Yes).

* $p \leq 0.05$, ** $p \leq 0.01$.

All of the correlation coefficients are less than 0.80 indicating that there is little risk of multicollinearity between the variables. In addition to reviewing the correlation coefficients matrix, I also calculated the VIF and tolerance statistic values for the variables in order to identify whether multicollinearity is present. Table 6.8 below shows the results for the predictor variables gender, age, first study abroad, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, and cultural distance.

Table 6.8 Results of the multicollinearity test between the predictor variables (gender, age, first study abroad, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, and cultural distance).

Test for multicollinearity ^a		
Variable	Collinearity statistics	
	Tolerance statistic	Variance inflation factor (VIF)
Gender	0.79	1.27
Age	0.86	1.17
First study abroad	0.89	1.12
Self-efficacy	0.60	1.66
Extraversion	0.78	1.13
Agreeableness	0.87	1.12
Conscientiousness	0.79	1.13
Neuroticism	0.72	1.39
Openness	0.89	1.12
Cultural distance	0.92	1.09
^a Dependent variable: CQ.		

The predictor variables gender, age, first study abroad, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, and cultural distance were found to satisfy the assumption of multicollinearity as illustrated in Table 6.8. The VIF values for the variables ranged from 1.09 (cultural distance) to 1.66 (self-efficacy), falling below the threshold value of five required for identifying multicollinearity (Craney & Surles, 2002; Hair et al., 2011). Furthermore, the tolerance statistic values for the variables were all above 0.20 (Menard, 1995), further suggesting the absence of multicollinearity. Therefore, based on the results of these tests, no multicollinearity was found.

6.5 Main effects tests

Based on the guidance of qualified statisticians, GLIM was utilized within SPSS in order to test the significance of the overall model. The control variables and independent variables were entered as the predictors in the model and CQ was entered as the response. GLIM provides an omnibus test with a likelihood ratio test statistic to compare the fitted model against the intercept-only model. A significant result ($p \leq 0.05$) indicates that the tested model

outperforms the intercept-only model and that the predictors in the overall model have a significant effect on the outcome variable (Field, 2009). For the model in this study, the likelihood ratio chi-square test statistic was 75.20 (26df) and significant ($p \leq 0.001$), indicating that the control variables and independent variables have a significant effect on CQ. However, this test does not provide any specific information about which of the predictor variables have an effect or which categories within the independent variables impact CQ.

In addition to the likelihood ratio test statistic, I obtained the R^2 value of the model variance in CQ accounted for when only the control variables (age, gender, first study abroad, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness and cultural distance) were entered into the model. Following this, I entered the independent variables into the model and obtained the R^2 and change in R^2 values. With only the control variables, the R^2 value was 0.18 (adjusted $R^2 = 0.14$), indicating that 18% of the variation in CQ was explained for by the control variables. After entering the independent variables, the R^2 value was 0.29 (adjusted $R^2 = 0.25$), indicating that 29% of the variation in CQ was explained for by the model that included both the control and independent variables. The change in R^2 was 0.11, indicating that an additional 11% of the variation in CQ was explained when the independent variables were added to the model. Additionally, the stability of the model was also assessed (Field, 2009). The model was run multiple times beginning with just the control variables, then adding each of the independent variables, and followed by adding combinations of the independent variables, in order to ensure the model was stable and that the results were consistent (Field, 2009). Given the stability of model and the consistency of the results, for the final analyses, all of the variables were entered at the same time.

6.5.1 Hypotheses tests

To test the overall effect of each of the independent variables, the significance of the Wald chi-square test statistic was utilized. A significant Wald test statistic ($p \leq 0.05$) indicates that a variable has an effect on the dependent variable. In the context of this study, a significant Wald test statistic indicates that there is a significant difference in CQ between at least two of the levels of immersion of the study abroad program component. Therefore, if the Wald test statistic for each of the study abroad program components was significant, then its corresponding hypothesis was accepted. The parameter estimates for all the independent and control variables included in the model are provided in Table E1 in Appendix E. Table 6.9 presents the results of the overall type 3 tests for the significance of each variable.

Table 6.9 Results of the overall type 3 tests for significance of the control variables (gender, age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, cultural distance, and first study abroad) and the independent variables (entry-target language competence, language of instruction used in course-work, type of housing, opportunities for cultural interaction/experiential learning, and opportunities for guided reflection on the cultural experience).

Overall Type 3 tests for significance of each variable			
	Wald χ^2	df	Significance (p)
(Intercept)	33.12	1	0.00
Control Variables			
Gender	0.13	1	0.72
Age	0.26	1	0.61
Self-efficacy	25.18	1	0.00
Extraversion	0.84	1	0.36
Agreeableness	1.86	1	0.17
Conscientiousness	3.20	1	0.07
Neuroticism	0.06	1	0.81
Openness	1.47	1	0.23
Cultural distance	0.67	1	0.41
First study abroad	0.01	1	0.93
Independent Variables			
Entry-target language competence	4.92	4	0.29
Language of instruction used in course-work	10.74	3	0.01
Type of housing	3.83	4	0.43
Opportunities for cultural interaction/experiential learning	0.05	2	0.97
Opportunities for guided reflection on the cultural experience	10.93	3	0.01
Dependent variable: CQ. [n = 228, $R^2 = 0.29$, $\Delta R^2 = 0.11$ (compares to model with only control variables), LR test for overall model: $\chi^2(26) = 75.81$, $p < 0.001$].			

The control variables gender, age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, cultural distance and first study abroad were included in the model. Of note in the control variables is that only self-efficacy had a significant effect on CQ (Wald $\chi^2(1) = 25.18$, $p < 0.001$) and it was positively related to CQ (β

= 0.36, $p < 0.001$). Although previous research has suggested that all of the control variables included in the model have an effect on CQ, within this study there were no significant effects found for any variable except for self-efficacy.

Hypothesis 1 suggested that there would be a significant difference in participants' mean CQ between at least two of the levels of immersion within the study abroad program component entry target-language competence. As shown in Table 6.9, for entry target-language competence the Wald $\chi^2(4) = 4.92$ ($p > 0.05$). Thus, Hypothesis 1 is not supported.

Hypothesis 2 suggested that there would be a significant difference in participants' mean CQ between at least two of the levels of immersion within the study abroad program component language of instruction used in course-work. As shown in Table 6.9, for language of instruction used in course-work the Wald $\chi^2(3) = 10.74$ ($p \leq 0.05$). Thus, Hypothesis 2 is supported.

Hypothesis 3 suggested that there would be a significant difference in participants' mean CQ between at least two of the levels of immersion within the study abroad program component type of housing. As shown in Table 6.9, for type of housing the Wald $\chi^2(4) = 3.83$ ($p > 0.05$). Thus, Hypothesis 3 is not supported.

Hypothesis 4 suggested that there would be a significant difference in participants' mean CQ between at least two of the levels of immersion within the study abroad program component opportunities for cultural interaction/experiential learning. As shown in Table 6.9, for opportunities for cultural interaction/experiential learning the Wald $\chi^2(2) = 0.05$ ($p > 0.05$). Thus, Hypothesis 4 is not supported.

Hypothesis 5 suggested that there would be a significant difference in participants' mean CQ between at least two of the levels of immersion within the study abroad program component opportunities for guided reflection on the cultural experience. As shown in Table 6.9, for opportunities for guided reflection on the cultural experience the Wald $\chi^2(3) = 10.93$ ($p \leq 0.05$). Thus, Hypothesis 5 is supported.

6.5.2 Post hoc pairwise comparisons tests

After testing the hypotheses, for the two study abroad program components where a significant difference in mean CQ between at least two of the levels of immersion were identified, I utilized pairwise comparisons to determine how CQ differed between the levels of immersion. The pairwise comparisons tests were completed in GLIM with the control variables (gender, age, self-efficacy, extraversion, agreeableness, conscientiousness,

neuroticism, openness, cultural distance and first study abroad) included and held constant. As a result, the estimated marginal means or adjusted means were utilized.

For the first set of comparisons, related to the result of supporting Hypothesis 2, the level of immersion of the language of instruction used in course-work was utilized. Table 6.10 provides the estimated marginal means of CQ, standard error, and Wald confidence interval of each level of immersion pertaining to the language of instruction used in course-work, from the lowest to the highest level of immersion. This is followed by Table 6.11, which shows the pairwise comparisons of mean CQ between each level of immersion of the language of instruction used in course-work.

Table 6.10 *Estimated marginal mean CQ for the levels of immersion of the study abroad program component language of instruction used in course-work.*

Estimated marginal mean CQ for language of instruction used in course-work				
Level of immersion (survey response)	Mean CQ	Standard error	95% Wald confidence interval	
			Lower	Upper
English only	3.99	0.04	3.91	4.07
English and the host-country native language	4.17	0.07	4.03	4.30
Predominately in the host-country native language	4.34	0.16	4.03	4.65
In the host-country native language in all courses and extracurricular activities	4.07	0.11	3.84	4.29
Covariates appearing in the model are fixed at the following values: Gender = 0.48; Age = 23.55; Self-efficacy = 3.95; Extraversion = 3.99; Agreeableness = 3.86; Conscientiousness = 3.92; Neuroticism = 2.34; Openness = 3.52; Cultural distance = 2.75; First study abroad = 0.62.				

Table 6.11 Pairwise comparisons of mean CQ for the levels of immersion of the study abroad program component language of instruction used in course-work.

Pairwise comparisons of mean CQ for the levels of immersion of the language of instruction used in course-work				
Comparison category 1	Comparison category 2	Mean CQ difference (cat1-cat2)	Standard error	Significance
Level 1	Level 2	-0.18	0.07	0.01
	Level 3	-0.35	0.16	0.03
	Level 4	-0.08	0.11	0.49
Level 2	Level 3	-0.17	0.17	0.30
	Level 4	0.10	0.13	0.44
Level 3	Level 4	0.27	0.19	0.15
Level 1 = English only Level 2 = English and the host-country native language Level 3 = Predominately in the host-country native language Level 4 = In the host-country native language in all courses and extracurricular activities				

As depicted in Table 6.10, the estimated marginal mean CQ was the highest among participants who took courses predominately in the host-country native language, followed by those who took courses in both English and the host-country native language, and then those who took courses in the host-country native language only. The estimated marginal mean CQ was the lowest for participants who took courses in English only. Additionally, there was a significant difference in mean CQ between level 1 (English only) and both level 2 (English and the host-country native language) and level 3 (predominately in the host-country native language), such that, participants who took courses in English only reported lower CQ than participants who took courses in some combination of both English and the host-country native language, as shown in Table 6.11.

For the second set of comparisons, related to the result of supporting Hypothesis 5, the level of immersion of opportunities for guided reflection on the cultural experience was utilized. Table 6.12 provides the estimated marginal means of CQ, standard error, and Wald confidence interval of each level of immersion pertaining to the opportunities for guided reflection on the cultural experience, from the lowest to the highest level of immersion. This is followed by Table 6.13, which shows the pairwise comparisons of mean CQ between each level of immersion of the opportunities for guided reflection on the cultural experience.

Table 6.12 *Estimated marginal mean CQ for the levels of immersion of the study abroad program component opportunities for guided reflection on the cultural experience.*

Estimated marginal mean CQ for opportunities for guided reflection on the cultural experience				
Level of immersion (survey response)	Mean CQ	Standard error	95% Wald confidence interval	
			Lower	Upper
There were no guided reflections or cultural orientation/information sessions offered	4.10	0.07	3.96	4.24
There was an orientation program that included information about culture	4.03	0.07	3.90	4.16
There was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad	4.26	0.08	4.11	4.40
There were opportunities to reflect on the cultural experience such as mentoring, courses in cultural perspectives, opportunities to write or research culture among others	4.18	0.09	4.01	4.35
Covariates appearing in the model are fixed at the following values: Gender = 0.48; Age = 23.55; Self-efficacy = 3.95; Extraversion = 3.99; Agreeableness = 3.86; Conscientiousness = 3.92; Neuroticism = 2.34; Openness = 3.52; Cultural distance = 2.75; First study abroad = 0.62.				

Table 6.13 *Pairwise comparisons of mean CQ for the levels of immersion of the study abroad program component opportunities for guided reflection on the cultural experience.*

Pairwise comparisons of mean CQ for the level of immersion of guided reflection on the cultural experience				
Comparison category 1	Comparison category 2	Mean CQ difference (cat1-cat2)	Standard error	Significance
Level 1	Level 2	0.07	0.06	0.26
	Level 3	-0.16	0.08	0.05
	Level 4	-0.08	0.09	0.41
Level 2	Level 3	-0.23	0.07	0.00
	Level 4	-0.15	0.08	0.08
Level 3	Level 4	0.08	0.09	0.40
Level 1 = There were no guided reflections or cultural orientation/information sessions offered Level 2 = There was an orientation program that included information about culture Level 3 = There was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad Level 4 = There were opportunities to reflect on the cultural experience such as mentoring, courses in cultural perspectives, opportunities to write or research culture among others				

As depicted in Table 6.12, the estimated marginal mean CQ was the highest among participants who were provided an orientation and additional sessions throughout the duration of their study abroad, followed by those who were provided regular opportunities to reflect on the cultural experience, and then those who were provided no orientation or guided reflection opportunities. The estimated marginal mean CQ was the lowest for participants who were only provided an orientation. Additionally, as shown in Table 6.13, there was a significant difference in mean CQ between level 1 (there were no guided reflection or cultural orientation/information sessions offered) and level 3 (there was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad), such that, participants who were not provided an orientation reported lower CQ than participants who were provided an orientation and additional sessions. There was also a significant difference in mean CQ between level 2 (there was an orientation program that included information about culture) and level 3 (there was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad), such that, participants who were provided only an orientation reported lower CQ than participants who were provided an orientation and additional sessions throughout the

duration of their study abroad. Finally, there was a marginally significant difference ($p \leq 0.10$) in mean CQ between level 2 (there was an orientation program that included information about culture) and level 4 (there were opportunities to reflect on the cultural experience such as mentoring, courses in cultural perspectives, opportunities to write or research culture among others), such that, participants who were provided only an orientation reported lower CQ than participants who were provided regular opportunities to reflect on the cultural experience.

Chapter 7. DISCUSSION AND CONCLUSION

7.1 Introduction

The aim of my thesis was to contribute to the scholarly conversation on the relationship between international experience and the development of CQ. I did this by examining how the level of immersion of different study abroad program components impact CQ, which is a novel and more fine-grained approach to understanding the relationship between international experience and CQ than has been adopted in previous research. This approach is novel because it went beyond measuring the length or number of international experiences, and focused on what the individual was exposed to and the opportunities they were provided in order to analyze not only the individual components' impact on CQ, but also differences in CQ between their levels of immersion. Specifically, I hypothesized that there would be differences in mean CQ between the levels of immersion of the study abroad program components: 1) entry target-language competence, 2) language of instruction used in coursework, 3) type of housing, 4) opportunities for cultural interaction/experiential learning, and 5) opportunities for guided reflection on the cultural experience. Furthermore, although the specific differences could not be predicted, I queried how mean CQ differs between the levels of immersion of the program components. Drawing from previous studies, I tested these relationships while controlling for the effect of the covariates: gender, age, previous study abroad, self-efficacy, personality, and cultural distance.

Overall, the results give additional support to the notion that international experience can influence the development of CQ, as has been suggested in previous studies (Crowne, 2013; Eisenberg et al., 2013; Li et al., 2013; Shannon & Begley, 2008). However, I separated the aspects that constitute study abroad programs, and then examined differences in mean CQ between the levels of immersion of the components. As a result, I provided evidence that CQ varies across different study abroad program components as well as between the levels of immersion of the components. Proof of the variance in CQ, depending on how immersive the study abroad program components are, has theoretical implications for future investigations that utilize the international experience construct. Additionally, it brings practical recommendations for IB education, when designing study abroad programs, and for IHRM, when selecting future expatriates. Not surprisingly, there are also some limitations that need to be considered when viewing the results.

In this chapter, first, I discuss the research sub-questions based on the results of the hypotheses tests and post hoc analyses, and describe the advancements towards answering the overall

research question. Then, drawing from these discussions, I detail the research and practical implications of my thesis. Next, I discuss the theoretical and methodological limitations of the study. Last, I recommend the examination of the unexplored research avenues identified in the literature review in Chapter 2 and the further testing of the theoretical framework provided in Chapter 3, and conclude by detailing a future research agenda for the continued investigation of the link between international experience and CQ.

7.2 Going beyond the research questions

Through the thesis research, I advance the scholarly knowledge relating to the overall research question, which focused on the relationship between international experience and CQ. I also answer the two research sub-questions, which focused specifically on my treatment of study abroad as a type of non-work international experience. The two sub-questions were aimed at gaining a better understanding of the relationship between study abroad and CQ by empirically investigating whether there are differences in CQ within each study abroad program component, and if so, identifying how CQ differs depending on the level of immersion of the program components. In this section, I answer the sub-questions and then, also offer possible explanations for the specific outcomes of the hypotheses tests and post hoc analyses. Then, I use the information gained, in conjunction with the literature review and theoretical framework, to discuss and provide answers to the overall research question.

7.2.1 Mean CQ differences within the study abroad program components

The first research sub-question asked if participants' mean CQ differed between the levels of immersion of the study abroad program components. To answer this question, I borrowed a classification system for study abroad programs introduced by Engle and Engle (2003), which provided a framework to unpack study abroad experiences. Based on the study abroad program components that the authors specified, I developed five hypotheses that predicted that there would be differences in participants' mean CQ between at least two of the levels of immersion of the study abroad program components. To test these hypotheses, I collected original empirical data and analyzed the study participants' mean CQ for differences across the five program components: entry target-language competence, language of instruction used in course-work, type of housing, opportunities for cultural interaction/experiential learning, and opportunities for guided reflection on the cultural experience. The results partially supported the hypothesized relationships. Mean CQ significantly differed between the levels of immersion for some study abroad program components.

Specifically, the results supported the second hypothesis that predicted there would be significant differences in participants' mean CQ between the levels of immersion of the study abroad program component language of instruction used in course-work. Language is an important part of culture (Thomas & Inkson, 2004); therefore, being able to not only observe host-country natives, but also understand their verbal communication could lead to more accurate information about the host-culture and how to interact within it. Furthermore, when courses are taught primarily in the host-country native language, the behaviors within the classroom would likely portray the cultural norms of the host-country, thereby providing opportunities for the study abroad students to observe and reproduce these behaviors. According to SLT, by being a part of the learning environment and going through the processes of attention, retention and reproduction, an individual can develop new skills (Bandura, 1977). Although how CQ differed cannot be determined based on this question, this result demonstrates that the development of CQ differs when courses are taught in English only, in a combination of English and the host-country native language, and in the host-country native language only.

The results also supported the fifth hypothesis that predicted there would be significant differences in participants' mean CQ between the levels of immersion of the study abroad program component opportunities for guided reflection on the cultural experience. According to SLT, individuals need to pay attention to the behaviors being portrayed in the learning environment, retain them, and reproduce them in a setting where they can experience positive or negative consequences (Bandura, 1977). Thus, it is by being provided opportunities to reflect on the consequences that study abroad students were able to question their cultural assumptions, and consider the behaviors they had reproduced and the cultural knowledge and skills they had learned. As a result, students were able to make adjustments to their cultural knowledge and skills, and rehearse new behaviors for use in future interactions, thereby developing their CQ. Although how CQ differed cannot be determined based on this question, this finding suggests that the development of CQ differs depending on whether individuals are provided with no cultural guidance, an orientation session, or a combination of an orientation and guided reflection sessions.

Unexpectedly, the results of the statistical analysis indicated that there were no significant differences in participants' CQ between at least two of the levels of immersion for three of the study abroad program components. In particular, the level of immersion of entry-target language competence, type of housing, and opportunities for cultural interaction/experiential learning did not show significant differences in participants' mean CQ. The amount of host-

country native language competence needed can effect an individual's efficacy and outcome expectations (Bandura, 1977), which informed my prediction that there would be differences based on the level of immersion of this program component. Although Engle and Engle's (2003) classification system identified study abroad program components that are described as objective, the level of host-country native language competence needed is actually highly perceptive. The single-item measure to assess the level of immersion of this program component asked respondents to indicate the level of host-country native language needed in the country where they studied abroad. As responses to this question would be dependent on their experiences in the host-country and their perception, the internal validity of the measure for this variable was threatened, which could explain why significant differences were not observed. I will discuss this issue further in section 7.5 in relation to the measurement of the levels of immersion of the study abroad program components more generally.

I also anticipated differences in participants' CQ between the levels of immersion of the program component type of housing. The amount and depth of exposure to host-country natives was assumed to be greater as students moved from collective living arrangements (dorm rooms) to individual home stays. Previous research has demonstrated that when study abroad students live with a local family, they reported that they experienced high levels of interaction with host-country natives and received guidance about how to interact with natives from their host-family (Diao et al., 2011; Gutel, 2007). According to SLT, it can be anticipated that this interaction would provide the students with opportunities to pay attention to the behaviors of natives, retain what is observed, and then reproduce it in an environment where they can receive feedback (Bandura, 1977). As a result, I expected that CQ would differ dependent on the program component type of housing. However, it could be argued that when students live collectively they are exposed to multiple cultures and interact with individuals not only from the host-country, but also from many other countries. CQ is a set of skills that is theorized to develop from exposure to other cultures (Thomas et al., 2008), and perhaps, being exposed to and interacting with more than one culture was also beneficial to the development of the study participants' CQ. Therefore, it is possible that there were no significant differences in mean CQ based on the level of immersion of the program component type of housing because respondents gained new cultural knowledge and skills both in collective housing and individual home stays.

It was particularly surprising that the program component opportunities for cultural interaction/experiential learning did not result in significant differences in participants' CQ based on its level of immersion. According to SLT, it can be expected that the depth of

interaction with host-country natives would influence the opportunities for participative reproduction (Bandura, 1977), thereby resulting in differences in CQ. In addition, Engle and Engle (2003) argued that having opportunities to interact with members of other cultures is one of the defining characteristics of study abroad. It is important to note, however, that for the purpose of measurement of this variable, as specified by Engle and Engle (2003), respondents were not asked about their participation in the interaction opportunities provided by their program, but asked only about the amount of interaction opportunities that were provided. Therefore, while the findings suggest that the amount of opportunities for interaction provided by the program does not make a difference in the development of CQ, there is a chance that the level of participation in such opportunities for interaction could. In the questionnaire, if respondents indicated that they were provided opportunities for interaction, they were subsequently asked about their level of participation in these opportunities. When this question was included in the analyses, despite the fact that it did not relate to the program components as specified by Engle and Engle (2003), the Wald $\chi^2(3) = 20.30$ ($p \leq 0.000$), indicating that there are significant differences in mean CQ based on the depth of participation when presented with opportunities for interaction. This provides some evidence that the level of immersion of the program component opportunities for cultural interaction/experiential learning does not develop CQ, but the level of participation in the opportunities for interaction provided does.

Determining if there were significant differences in participants' CQ within the study abroad program components provided information about which components impact CQ. Next, based on the answer to my first sub-question, I discuss the post hoc analyses that were completed to examine how participants' mean CQ differed between the levels of immersion of the program components where significant variation was indicated, and answer my second sub-question.

7.2.2 Mean CQ differences between the levels of immersion

The second research sub-question enquired about how participants' mean CQ differed between the levels of immersion of the study abroad components, specifically in those cases where significant differences were indicated by the results of the hypotheses tests utilized to answer the first sub-question. Based on the answer to the first sub-question, this question provides additional information about how the different levels of immersion within the program components language of instruction used in course-work and opportunities for reflection on the cultural experience influenced participants' CQ. Although there were no a priori expectations, and thus, no stated hypotheses used to answer this research question, I completed

post hoc analyses through pairwise comparisons in order to determine the differences in CQ between the levels of immersion.

First, the estimated marginal mean CQ for each category of the program component language of instruction used in course-work showed that respondents' CQ was the lowest at level 1 and the highest at level 3. These results imply that respondents who took courses taught in English only had the lowest CQ, and those who took courses taught predominately in the host-country native language had the highest CQ. Additionally, mean CQ at both levels 1 and 4 were lower than at both levels 2 and 3. These results suggest that when students took courses taught in English only or taught in the host-country native language only, they had lower CQ than when they took courses taught in both English and the host-country native language or predominately taught in the host-country native language. Finally, the findings of the pairwise comparisons showed that there were significant differences in mean CQ between level 1 and level 2 and between level 1 and level 3. These results indicate that respondents who took courses taught in both English and the host-country native language or predominately in the host-country native language developed significantly higher CQ than those respondents who took courses taught in English only.

In general, these results demonstrate that the level of immersion of the program component language of instruction used in course-work influences the development of CQ. Specifically, they imply that when students' study abroad programs include courses taught in English only or taught in the host-country native language only, their CQ is lower than when they take courses taught in both English and the host-country native language. As a result, there was an inverted-U shaped relationship between the level of immersion of the language of instruction and the development of CQ. In this case, it appears as though students who did not take any course-work taught in the host-country native language (the lowest level of immersion) were under-challenged, while students at the other extreme who took courses taught in the host-country native language only (the highest level of immersion), were over-challenged. Vande Berg, Paige, and Connor-Linton (2009) found similar results and they argued that there are lower and upper boundaries of skill development based on Sanford's (1966) challenge/support hypothesis. According to the hypothesis, there should be a balance between how challenged students are and how much support they receive in order to achieve the highest level of learning (Vande Berg et al., 2009). Therefore, students at the lowest and highest levels of immersion withdrew from the learning environment because it was not challenging enough and too challenging, respectively. This supports SLT; individuals need to be a part of the

learning environment and go through the attention, retention and reproduction process to learn new skills.

Second, the estimated marginal mean CQ for each category of the program component opportunities for guided reflection on the cultural experience showed that respondents' CQ was the lowest at level 2 and the highest at level 3. These results indicate that respondents who were only provided an orientation had the lowest CQ, and those who were provided an orientation and additional information sessions about culture throughout their study abroad had the highest CQ. Furthermore, mean CQ at both levels 1 and 2 were lower than at levels 3 and 4. These results imply that respondents who were not provided an orientation or any opportunities for guided reflection, or were provided only an orientation had lower CQ than those respondents who were provided an orientation and additional information sessions about culture, or were provided an orientation and reflection opportunities. Finally, the findings of the pairwise comparisons indicated that there were significant differences in mean CQ between level 1 and level 3, and between level 2 and level 3. Additionally, marginally significant ($p < 0.10$) differences in mean CQ were found between level 2 and level 4. These results suggest that respondents who were provided an orientation and additional information sessions about culture developed significantly higher CQ than those respondents who were not provided an orientation or any opportunities for guided reflection, and those respondents who were only provided an orientation. Also, students who were provided opportunities to reflect on the cultural experience developed significantly higher CQ than students who were only provided an orientation.

Overall, these results demonstrate that the level of immersion of the program component opportunities for guided reflection on the cultural experience influences the development of CQ. In particular, they imply that when students' study abroad programs only provide an orientation with information about culture their CQ is lower than when the programs provide an orientation and additional information sessions or reflection opportunities. According to SLT, individuals must pay attention to the behaviors of the natives of the host-country in order to gain important cultural knowledge and skills. If individuals do not pay attention and observe the behaviors of the natives, they are unable to retain and reproduce the behaviors and, as a result, do not learn from being a part of the environment. Students who were only provided an orientation may have developed a false sense of their level of understanding about the particular culture and believed that they were equipped with the necessary cultural knowledge and skills, resulting in their withdrawal from the learning environment. Thus, students who were provided additional information sessions about culture and those who were given

opportunities to reflect on their cultural experience developed significantly higher CQ, as they went through the processes of SLT, and through those processes gained knowledge and skills for interacting in cross-cultural situations.

These results also relate to what Fischer (2011), drawing from Bhawuk's (1998) model and Howell's (1982) framework, referred to as unconscious incompetence. After the orientation the students may have believed they had the necessary information to interpret others' behavior, and as a result could not understand why things were not working out the way they expected. When additional sessions were offered the students reflected on what they had been observing, expressed their frustrations, and gained new cultural information, moving them to a state of conscious incompetence. At this stage they became aware that they were failing to portray appropriate behaviors and making incorrect attributions about others' behavior because of their lack of knowledge about the culture. Through continued cultural information and guided reflection sessions the students move into the conscious competence stage. Here they are able to understand why certain behaviors lead to the anticipated outcomes and why others do not. Referring back to SLT, it is through the cultural information and guided reflection sessions that individuals go through the retention and reproduction processes. Reflection allows for repeated modeling and mental rehearsal (Bandura, 1977) during which newly learned information can be incorporated and corrective actions can be developed to gain understanding for better future interactions.

Analyzing how and why mean CQ differed between the levels of immersion of the study abroad program components language of instruction in course-work and opportunities for guided reflection provided information about the relationship between international experience and CQ. Specifically, it detailed under what conditions international experience can be expected to lead to the development of CQ. In the subsequent subsection, I utilize the discussions responding to the sub-questions and provide answers to the overall research question.

7.2.3 How does international experience impact CQ?

As evident from the reviews of the CQ literature, there is variation across the results of previous studies that have examined whether international experience impacts CQ. This variation can be attributed to the absence of theoretical grounding for anticipated relationships between the constructs, and cursory measurements of international experience. The overall research question I posed in the beginning of the thesis stemmed from these two reasons, and focused on gaining a better understanding of the impact of international experience on CQ.

While I cannot answer the overall question absolutely and in definitive terms, I have made a contribution towards a deeper and more detailed understanding of the relationship between international experience and CQ. First, I argued how SLT supports the development of CQ through international experiences if individuals go through the learning processes specified by the theory while in the learning environment. Second, I found that, empirically, some study abroad program components impact CQ, and that CQ differs as a result of the level of immersion of those components. Based on the analyses, I conclude that, in agreement with the findings of Eisenberg et al. (2013) and Varela and Gatlin-Watts (2013), the relationship between international experience and CQ is much more complicated than originally anticipated. Some of this complication could be a consequence of the inferences made from my results that 1) the relationship between international experience and CQ may not be linear, which is contrary to what has been widely assumed (Engle & Crowne, 2014; Şahin et al., 2013; Wood & St. Peters, 2014), and 2) individuals need to be provided multiple cultural information sessions throughout an international experience, not just one session at the beginning.

Utilizing study abroad as the type of international experience not only allowed me to unpack the construct to consider different program components, but also allowed me to examine how the levels of immersion within each program component impacts CQ. At this level of detail, I provide evidence that some study abroad program components impact the development of CQ while others do not. Specifically, I found that the program components language of instruction used in course-work and opportunities for reflection on the cultural experience have differing CQ between their levels of immersion. Furthermore, the results show that there appears to be an inverted-U shaped relationship between the levels of immersion of the language of instruction used in course-work and CQ. In particular, respondents who took courses taught in English only or in the host-country native language only had lower CQ than those who took courses taught in both English and the host-country native language. Additionally, the results suggest that study abroad programs providing only an orientation at the beginning may give students a false sense of preparedness and thus result in lower CQ. When respondents were provided more than one cultural information session or multiple opportunities to reflect on the cultural experience, they had higher CQ than when only one orientation session was offered.

7.3 Advances and contributions to research

My thesis advances the scholarly knowledge on CQ in four important ways. First, I conducted a comprehensive and extensive literature review, and identified four specific avenues for future conceptual and empirical research. In the co-authored paper incorporated into Chapter

2, I reviewed 63 management, IB, education and psychology journal articles published between 2002 and 2014. Following this, I systematically organized the accumulated knowledge on CQ; analyzed the existing studies; identified patterns, achievements and gaps within the literature; and recommended avenues for future research in order to gain a deeper understanding of CQ's nomological network. The literature review also discussed the similarities and analyzed the main differences between Earley and Ang's (2003) and Thomas et al.'s (2008) conceptualizations of CQ. To my knowledge, this is the first work to include both conceptualizations, thereby bringing clarity to a stream of literature that has been limited by its reliance on one conceptualization, the one by Earley and Ang (2003), despite criticism. The review included research that has focused on the antecedents and outcomes of CQ, and articles that have placed CQ in the mediator and moderator positions, which have enriched the insights drawn from previous studies by going beyond models of direct effects. It also included articles published through to the end of 2014, making it a recent and up-to-date review. One of the conclusions of the review highlighted that the link between international experience and CQ is not well understood and provided a basis for the deeper investigation of the nature of the relationship between the constructs.

Second, I completed a systematic review of the literature on the link between international experience and CQ in a co-authored paper incorporated into Chapter 3. The review revealed that there have been inconclusive findings as a result of theoretical and methodological weaknesses within previous research, and the paper subsequently provided a comprehensive theoretical framework to overcome these weaknesses. CQ is a set of malleable capabilities that has been theorized to develop from exposure to and experiences within other cultures (Earley & Ang, 2003; Thomas et al., 2008). The detailed review of the literature that examined the link between international experience and CQ, however, revealed that the results have been inconsistent and inconclusive. When using overall CQ, some scholars have reported a positive and predictive relationship between the variables (Crowne, 2013; Eisenberg et al., 2013; Li et al., 2013; Shannon & Begley, 2008), while others have found the relationship to be insignificant (Gupta et al., 2013; MacNab & Worthley, 2012; Şahin et al., 2014). Even greater variation is uncovered when the relationships between international experience and the individual facets of CQ, according to the Earley and Ang's (2003) conceptualization, are investigated (Engle & Crowne, 2014; Li et al., 2013; Moon et al., 2012; Shannon & Begley, 2008; Tarique & Takeuchi, 2008; Tay et al., 2008; Varela & Gatlin-Watts, 2014). As presented in Chapter 3, a critical analysis of the existing research identified two possible reasons for the results of previous research. The first is the lack of a clearly specified and well utilized theoretical foundation to explain the link. The second is the superficial

operationalization of the international experience construct (discussed in detail ahead). I addressed the first weakness by arguing that Bandura's SLT (1977) is an appropriate and powerful theory to explain how and why international experience leads to the development of CQ when individuals are a part of and interact with the learning environment. The paper developed a SLT framework and included a set of testable propositions to empirically examine the relationship between the constructs.

Third, as mentioned above, the co-authored paper in Chapter 3 also identified the need to incorporate more informative and fine-grained measures of the international experience construct when investigating its link to CQ. The review of the literature that examined the link between international experience and CQ documented that international experience is almost exclusively measured quantitatively. Although international experience has been operationalized as a multidimensional construct (Takeuchi et al., 2005), it is often measured using inadequate metrics that provide no qualifying criterion (Eisenberg et al., 2013). I argued that the quality of international experiences is just as, if not more important than quantitative measures because of the vast differences between international experiences. While during some international experiences individuals have regular, purposeful, and meaningful interaction with host-country natives, during others individuals have little or no interactions with natives, nor do they make any attempts to do so. As a result, the level of social involvement can significantly differ based on the purpose and type of international experience (Chang et al., 2013). Based on the SLT framework presented in the paper, the quality of international experiences is incorporated into its measurement through the use of the learning processes, namely attention, retention, reproduction, and motivation/incentive (Bandura, 1977).

Fourth, my research is one of the first to utilize Thomas et al.'s (2008) conceptualization and newly validated measurement of CQ (Thomas et al., 2015), and the first, to my knowledge, to unpack international experience to investigate its link to CQ. Based on the results, my research represents an advancement towards understanding, in greater detail, how international experience influences the development of CQ. In addition, it offers encouragement for the continued incorporation of Thomas et al.'s (2008) conceptualization and measurement of CQ (Thomas et al., 2015) in future research. The results also provide some explanation as to why scholars have previously reported inconsistent findings with respect to the nature of the relationship between international experience and CQ. In particular, I found that the relationship between the variables may not be linear, and, consequently, relying exclusively on

the length or number of international experiences may have limited previous results. This will be discussed in greater detail ahead.

An important difference between Earley and Ang's (2003) and Thomas et al.'s (2008) conceptualizations of CQ, which resulted in my decision to use Thomas et al.'s (2008) construct, relates to the interaction between the dimensions of CQ. While both constructs are multidimensional, Thomas et al.'s (2008) conceptualization views CQ as a latent construct that emerges out of the interaction of its lower order facets: cultural knowledge, cross-cultural skills and cultural metacognition. As a result, the relationships between the dimensions and the overall construct are specified. In particular, how CQ develops from culture specific international experiences, and how those experiences can be relied on when entering a new cultural environment is explicated. The cultural knowledge and cross-cultural skills facets are developed through culture specific interactions and exposure, and are linked to CQ through cultural metacognition, which is culture general. Thus, Thomas et al.'s (2008) conceptualization provides an explanation as to how CQ can be developed from specific international experiences, and how these experiences can be translated across multiple cultures. Therefore, this conceptualization is particularly useful when investigating how study abroad, which is a culture specific type of international experience, influences CQ, as is done in my research. Additionally, because the motivation of the research included determining the value of study abroad for selecting future expatriates who will work in diverse cultural environments, Thomas et al.'s (2008) specification of how CQ translates across multiple cultures made it very relevant.

Treating study abroad as a type of international experience allowed me to unpack it, as detailed earlier, to learn more about how it impacts CQ, providing some potential explanation for the inconsistent results of previous studies. In particular, the findings suggest that the relationship between international experience and CQ, particularly with respect to exposure to the host-country native language, may not be linear. A common presumption is that 'more is better', that is, the longer the time spent in a foreign country (Li et al., 2013; Remhof et al., 2013) or greater the number of foreign countries visited (Eisenberg et al., 2013; Kim & Van Dyne, 2012; Morrell et al., 2013), the higher an individual's CQ. Similarly, Engle and Engle (2003) reasoned that the higher the level of immersion of the study abroad program components, the greater the cultural learning. Contrary to these assumptions, the results suggest that the variables may have a curvilinear relationship. This implies that there may be boundary conditions to developing CQ, such that too little or too much host-country native language immersion may negatively influence its development. A non-linear relationship

between study abroad and skill development was also reported by Vande Berg et al. (2009), however, my research relates these conditions specifically to CQ.

Furthermore, the results suggest that when utilizing international experience for skill development, it is necessary to provide multiple information sessions about culture or opportunities to reflect on the experience. My findings indicate that if individuals reflect on the cultural experience only once during their international experience they will have significantly lower CQ than when they do so throughout the experience. Hence, individuals must repeatedly and continuously go through the attention, retention and reproduction processes (Bandura, 1977) during their international experience to increase their attainment of new skills. This finding emphasizes the role of theoretical foundations more generally and, in particular, the influence of the SLT processes (Bandura, 1977) in CQ development. As discussed, utilizing theory to explain how international experience leads to the development of CQ has been absent in previous studies. However, it is important to note that the results must also be considered with certain limitations (detailed in section 7.5), and that additional research is necessary to confirm the conditions discussed. Before reflecting on the limitations of the study, in the next section I discuss the practical implications of the results for study abroad administrators and IHRM.

7.4 Practical implications

Within IB education, study abroad programs are used to provide students with diverse viewpoints and to develop skills that will assist them in careers with a global context (AACSB, 2012). CQ is one of these skills, and it is particularly relevant to future business expatriates because it enhances their ability to adjust and adapt to foreign environments (Chen et al., 2014; Huff et al., 2014; Lee et al., 2014; Lin et al., 2012), thereby impacting the success of their international assignments (Harvey & Moeller, 2009; Harvey & Novicevic, 2001). The results of my research support the notion that international experiences are influential in developing CQ (Crowne, 2013; Moon et al., 2013; Şahin et al., 2014), by detailing the impact of the level of immersion of study abroad program components on CQ.

Based on the findings of the thesis, students should be encouraged to enroll in study abroad programs that specifically offer a deeper level of immersion with respect to the program components language of instruction used in course-work and opportunities for reflection on the cultural experience. In particular, the results suggest that in order to cultivate students' CQ, they should be exposed to and use the host-country's native language within course-work during their study abroad, but that this use should not be exclusive. Furthermore, subsequent to

an initial orientation, students need to be provided with additional culture information sessions and opportunities to reflect on the cultural experience in order to foster the development of their CQ. These two results have practical implications for both study abroad program administrators and IHRM.

Firstly, I recommend that study abroad program administrators include some courses taught in the host-country native language when designing programs. While it is known that foreign language acquisition can result from students taking courses taught in the host-country native language during their study abroad (Engle & Engle, 2004), my results imply that the language of instruction can also influence the development of CQ. Compared to respondents who took courses taught in English only, respondents who took courses taught in both English and the host-country native language or predominately in the host-country native language developed significantly higher CQ. It is, however, important to note that when all courses and extracurricular activities were conducted in the host-country native language, respondents had lower CQ. Therefore, study abroad program administrators should design programs where some, but not all, courses are taught in the host-country native language. Doing so will likely expose students to the behaviors of host-country natives within the classroom, providing them with accurate information about the host-culture and how to interact within it, which is conducive to the development of their CQ.

Secondly, I advise that study abroad program administrators include an orientation, and additional culture information sessions and reflection opportunities throughout the study abroad when designing programs. While providing study abroad students with a pre-departure or on-arrival orientation is widely supported within IB education, my results imply that more than just one orientation session is needed to influence the development of CQ. Compared to respondents who were provided no orientation or only one orientation session, respondents who were provided an orientation and additional information sessions about culture or an orientation and opportunities to reflect on the cultural experience developed significantly higher CQ. Therefore, study abroad program administrators should plan for and design programs that include culture information sessions and reflection opportunities throughout the duration of the study abroad, in addition to an orientation session. These types of programs will likely facilitate the development of participants' CQ, because they will have more opportunities to reflect on the consequences of their behaviors, make adjustments to their learned cultural knowledge and skills, and rehearse new behaviors.

Lastly, I suggest that international human resource managers include among their criteria, previous participation in a study abroad program when selecting individuals for international

assignments. CQ is an important selection criterion for international assignments because of its demonstrated impact on expatriates' success (Chen et al., 2010; Lee, 2010; Lee & Sukoco, 2010; Malek & Budhwar, 2013; Rose et al., 2010; Templer et al., 2006). As mentioned above, when the study abroad program included courses taught in English and the host-country native language, and provided culture information sessions and opportunities to reflect throughout its duration, participants had significantly higher CQ. This implies that more information about an individual's study abroad program needs to be obtained during the recruitment and expatriate selection processes, particularly in relation to the language of instruction used in courses and the opportunities that were provided for participants to reflect on the cultural experience. Therefore, while there should not be a blanket acceptance that participation in a study abroad program indicates an individual has important skills for constructive cross-cultural business interactions; the value of participation in a study abroad program should also not be unanimously disregarded.

7.5 Limitations

My research, like any other piece of research, has certain limitations that must be taken into consideration, particularly when interpreting the obtained results. I discuss these limitations below and the actions taken to minimize their influence on the outcomes.

While the results are insightful, they should be viewed with some caution in terms of their generalizability and causality. Due to the difficulties associated with accessing students' protected and confidential information and the inability to randomly assign students to complete a study abroad program, I was restricted to utilizing a non-experimental design and a non-probability sampling approach. A concern with such a research design is that causality cannot be accurately inferred (Breakwell et al., 2006). In addition, I gathered cross-sectional and self-report data from students at an international business school in Denmark, who had self-initiated their study abroad. A concern with this type of sampling approach is that individuals who already have high CQ may be more inclined to participate in study abroad programs than those with low CQ, thereby skewing the sample and restricting the ability to find meaningful differences in CQ. Previous research has found that while it is assumed that Danish students are knowledgeable about culture, as they are generally more exposed to other cultures, this is not always the case as they may not always engage with cultural matters or appreciate cultural differences (Blasco, 2009). Therefore, because the sample predominately consisted of Danish students, their internal motivation to self-select participation in a study abroad program may mean that they already had higher CQ. Consequently, considering the representativeness of the sample and its potential impact on evidencing CQ differences, the

results must be carefully generalized (Bryman & Bell, 2011; Tabachnick & Fidell, 2007). Similar results could, however, be expected from students of international business schools that are located in countries with characteristics similar to those of Denmark. For example, some Scandinavian and central European countries are also geographically situated in such a way that allows for increased opportunities for exposure to and interactions with other cultures. Therefore students who study at international business schools in these countries, would likely have similar levels of cultural knowledge and skills before studying abroad, resulting in similar levels of skill development based on the level of immersion of the study abroad program components, as with the sample in this study.

Another limitation of the study is that I only invited students whose study abroad program lasted one semester to participate. This step was taken in an attempt to control for the influence of the duration of the study abroad on respondents' CQ. While SLT posits that by being a part of the learning environment and going through the processes of attention, retention and reproduction an individual is able to learn new skills, it does not stipulate the length or amount of time that is necessary for learning to occur. Previous research has also suggested that the length of one semester in a new cultural environment may not be long enough for an individual to develop new skills (Dwyer, 2004). Furthermore, based on theories of adjustment, it is conceivable that students who have only spent a short period of time in a new cultural environment are suffering from culture shock, which can inhibit their ability to learn new skills, including CQ.

There are different views on the processes of adjusting to a new cultural environment. A long held explanation of adjustment is the "U Curve Theory" (Black & Mendenhall, 1991; Lysgaand, 1955; Oberg, 1960). According to this theory, it takes time for individuals to adapt to a new cultural environment, as they typically go through four phases before achieving adjustment: honeymoon, culture shock, adjustment and mastery. When individuals initially arrive in a foreign country, for the first few months they feel excited and are captivated by the new culture. They may also find it amusing that they cannot understand or be understood within the host-country (Torbiorn, 1982). Then, after three to six months in the host-country, the differences between their home-culture and the host-culture become apparent, and they become irritated and find it difficult to manage the challenges associated with daily life. They also begin to experience problems because of the differences that once excited them, and doubts about their communication skills arise. As individuals learn how to cope with and accept the differences, approximately one year after arriving, they begin to overcome their feeling of isolation and start solving the problems they previously encountered. As a result,

they gradually adjust to the changes in the environment and are able to better portray appropriate behaviors. Finally, typically after a few years in the host-country, individuals are able to effectively function within the host-country environment and reach the mastery phase of adjustment. Although this view of adjustment is generally supported, it has had limited empirical support (Harrison, Shaffer, & Bhaskar-Shrinivas, 2004) because of the longitudinal research design required to verify it.

Another view of adjustment, which is based on research using student sojourners, suggests that when students relocate to a host-country they experience the highest level of culture shock and lowest level of satisfaction at the beginning of their experience (Ward, Okura, Kennedy, & Kojima, 1998). Ward and colleagues (1998) argued that distress, which is associated with the culture shock phase, rather than elation, which is associated with the honeymoon phase, was experienced by students when they initially arrived in the host-country for their study abroad. Furthermore, students tended to show a decrease in their level of adjustment problems after the first few months of the study abroad and that these levels remained relatively constant thereafter. For example, students reported that they experienced high levels of stress and low levels of adjustment 24 hours after their arrival into the host-country; high levels of adjustment six months after their arrival into the host-country; and very little change in their level of adjustment between six and 12 months after their arrival into the host-country. Ward and Kennedy (1999) also demonstrated that sojourners tended to experience a decrease in the level of stress arising from being in a new cultural environment after spending six to 12 months interacting within the host-country. According to this view of adjustment, study abroad students typically bypass the honeymoon phase and immediately feel the stress associated with experiencing cultural differences when they arrive in a host-country.

Based on either of these views of adjustment, at the time when the data were collected, respondents would have either still been in the culture shock phase or only just begun to move out of the culture shock phase. In both cases, culture shock may have prevented the respondents from going through the SLT processes, inhibiting their acquisition of cultural knowledge and skills, and thereby restricting their development of CQ. Therefore, although SLT does not explicate how much time is necessary for learning to take place, it is possible that the participants of this study may not have spent a sufficient amount of time in the host-country to develop CQ.

An additional limitation related to measurement is the items utilized to assess the level of immersion of the study abroad program components. All of the scales I employed, with the exception of the questions used to determine the level of immersion of the study abroad

program components, were established and have been used in previous studies. As this was the first study at the time, to my knowledge, to attempt to unpack an international experience to examine its impact on CQ, I relied on the classification system developed by Engle and Engle (2003) to both identify the study abroad program components and to measure their level of immersion. This included utilizing the categories provided by their system as the potential responses on the questionnaire to differentiate the levels of immersion of each study abroad program component. Although Engle and Engle's (2003) model provides a way of differentiating study abroad programs based on the components they identified, it is not the ideal model for all types of study abroad because it was designed from the perspective of the opportunities offered to US study abroad students. It could also be argued that it would be difficult to determine the level of immersion of some of the program components. For example, the difference between 'English and the native language of the country' and 'predominately in the native language of the country' for the question asking the language of instruction in course-work does not provide a clear difference between these two options. Additionally, as previously identified, there were also some components that were highly perceptive and dependent on each individual's experience, although Engle and Engle (2003) described the components as objective. Finally, the categories provided and used as potential responses are related to students studying in English at their home institution only. As a result, the questions used to measure the level of immersion may have issues with respect to their validity, as discussed below.

A significant issue with regard to how the levels of immersion were measured relates specifically to the question that asked the language of instruction used in course-work, as it resulted in some unexpected responses. The question asked 'please select the answer that best describes the language used in the courses you are completing/completed while studying abroad'. The possible responses were: 'English only', 'English and the native language of the country', 'predominantly in the native language of the country' and 'in the native language of the country in all courses and extracurricular activities'. Additionally, within the questionnaire, respondents were also asked what university they attended during their study abroad. The majority of respondents who reported that the foreign university that they attended was located in a country where English is the native language, also indicated that their courses were taught in 'English only' and not 'in the native language of the country in all courses and extracurricular activities' (see Table 7.1). As discussed, I relied on the categories provided by Engle and Engle (2003) and they developed the classification system considering study abroad students from the US, but there is a clear assumption that the native language of country of the study abroad would not be English. The issue is that this may have caused

confusion to the respondents of the questionnaire because, technically, two of the potential responses were applicable. In Table 7.1, I provide a cross-tabulation of the responses corresponding to the location (country) of the foreign university where the host-country native language is English, and the responses to the question enquiring about the language of instruction used in course-work. As shown, nearly all of the students who attended a university in a country where the native language is English reported that the language of instruction in their course-work was in ‘English only’. Although this response is not incorrect, these responses may have significantly influenced the data analyses and results.

Table 7.1 *Cross-tabulation of responses for location of foreign university by the level of immersion of the host-country native language competence needed.*

Language of instruction in course-work					
Location of foreign university	Level 1	Level 2	Level 3	Level 4	Total
Australia	17	0	1	1	19
New Zealand	2	0	0	0	2
United Kingdom	21	1	0	2	24
United States	32	0	0	4	36
Total	72	1	1	7	

Note: For the study abroad program component language of instruction used in course-work, level 1 = English only, level 2 = English and host-country native language, level 3 = predominantly in the host-country native language, and level 4 = in host-country native language in all courses and extracurricular activities.

To explore the potential impact of this issue, I adjusted the data for the 72 responses that indicated that the language of instruction used in course-work was in ‘English only’, changing it from level 1 to level 4. After adjusting this, I re-analyzed the data, and for the variable language of instruction used in course-work the new Wald $\chi^2(3) = 11.38$ ($p \leq 0.05$), indicating that there was still significant differences in mean CQ between the levels of immersion of this study abroad program component. Additionally, I ran the pairwise comparisons with the adjusted data, and, as depicted in Tables 7.2 and 7.3 below, they provided results similar to the original analysis.

Table 7.2 *Estimated marginal mean CQ for the levels of immersion of the study abroad program component language of instruction used in course-work.*

Estimated marginal mean CQ for language of instruction used in course-work				
Level of immersion (survey response)	Mean CQ	Standard error	95% Wald confidence interval	
			Lower	Upper
English only	4.00	0.05	3.90	4.10
English and the host-country native language	4.17	0.07	4.03	4.31
Predominately in the host-country native language	4.40	0.17	4.07	4.73
In the host-country native language in all courses and extracurricular activities	4.00	0.05	3.88	4.09
Covariates appearing in the model are fixed at the following values: Gender = 0.48; Age = 23.55; Self-efficacy = 3.95; Extraversion = 3.99; Agreeableness = 3.86; Conscientiousness = 3.92; Neuroticism = 2.34; Openness = 3.52; Cultural distance = 2.75; First study abroad = 0.62				

Table 7.3 *Pairwise comparisons of mean CQ for the levels of immersion of the study abroad program component language of instruction used in course-work.*

Pairwise comparisons of mean CQ for the levels of immersion of the language of instruction used in course-work				
Comparison category 1	Comparison category 2	Mean CQ difference (cat1-cat2)	Standard error	Significance
Level 1	Level 2	-.18	.08	.02
	Level 3	-.40	.17	.02
	Level 4	.01	.07	.89
Level 2	Level 3	-.23	.18	.22
	Level 4	.19	.09	.03
Level 3	Level 4	.41	.17	.02
Level 1 = English only Level 2 = English and the host-country native language Level 3 = Predominately in the host-country native language Level 4 = In the host-country native language in all courses and extracurricular activities				

As shown in Table 7.2, mean CQ was still lower at both level 1 and level 4, than at level 2 or level 3. These results support the original conclusion that when students took courses taught in English only or in the host-country native language only during their study abroad, they had lower CQ than when they took courses taught in both English and the host-country native language or predominately in the host-country native language. Contrary to the original results, the differences in mean CQ between level 2 and level 4, and between level 3 and level 4 are now significant after adjusting the responses, as shown in Table 7.3. Although this suggests that the issue may not have skewed the results, hypothesis two, which predicted that there would be differences in mean CQ of the level of immersion of the language of instruction used in course-work, should still be viewed with caution because of the potential problems related to the internal validity of the measure.

A final limitation is that I only focused on international experiences in the form of study abroad programs to investigate the development of CQ. As demonstrated through the literature review in Chapter 2, questions still remain about how CQ can be developed more generally. A future research avenue previously identified is the need for better theoretical grounding to understand how CQ can be developed. Although the thesis focused on understanding the link between international experience and CQ, other antecedents also warrant further investigation.

7.6 Future research

The literature review, presented in Chapter 2, identified four specific avenues for future conceptual and empirical research on CQ.

1. More theorizing about the CQ construct and interrelationships among the individual facets.
2. Better theoretical grounding of the examination of how CQ can be developed.
3. Incorporating better measures of international experience and investigating how CQ may assist expatriates in overcoming challenges associated with international assignments.
4. Incorporating cultural distance and personality variables in CQ research.

I pursued avenue two, by developing a theoretical framework that utilized SLT to explain how CQ can be develop from international experience, and avenue three, by utilizing the level of immersion of study abroad program components as a more detailed measure of an international experience to examine its influence on CQ. This leaves the remaining avenues for exploration through future research. In addition, I only tested one of the seven propositions put-forth by the theoretical framework, presented in Chapter 3, leaving a number of

propositions for testing by way of future research. Subsequent to these specific future research opportunities, below, I detail research areas in need of further investigation based on the previously discussed research limitations.

Firstly, future studies would benefit from surveying students who participate in longer study abroad programs when utilizing the level of immersion of the program components to examine their relationships with CQ. A discussed possible limitation of the study was that all of the respondents completed only a one semester study abroad program. There is some evidence, however, that skill development as the result of participation in a study abroad program takes longer than a few months of living in a foreign country (Dwyer, 2004). Additionally, given the theories related to cross-cultural adjustment (Black & Mendenhall, 1991; Torbiorn, 1982) and the amount of time the respondents had spent in the host-country when they completed the questionnaire, it is possible they were suffering from culture shock, preventing them from developing their CQ. Therefore, future research that includes students participating in longer study abroad programs would be particularly useful for increasing the understanding of how the level of immersion of the study abroad program components influences CQ. Through these types of studies, the impact of the length of the study abroad program on skill development could bring clarity to previous conclusions that have both supported (Engle & Crowne, 2014; Wood & St. Peters, 2014) and discouraged (MacNab & Worthley, 2012; Tarique & Takeuchi, 2008; Tay et al., 2008) the use of short-term international experiences to develop CQ.

Secondly, also related to the limitation of the length of participants' study abroad, the use of longitudinal research designs are needed to further assess the impact of each level of immersion of the study abroad program components on CQ. Specifically, it would be beneficial to gather data from students before, during, and immediately after their study abroad, and six months or a year following their return. This is because, in addition to the suggestion that skill development can take time (Dwyer, 2004), some studies have concluded that the effects of study abroad are not realized until after the completion of the program (Paige, Fry, Stallman, Josic & Jon, 2009; Vande Berg et al., 2009). Furthermore, according to Thomas et al. (2008), cultural metacognition uses culture specific knowledge and skills to develop strategies when interacting with individuals from unfamiliar cultures. Therefore, to be able to meaningfully respond to the items of the SFCQ about an individual's use of cultural knowledge, skills and metacognition may require that they have interacted with culturally different others since returning from an international experience. This implies that longitudinal studies are necessary to accurately measure if CQ can be developed through international experience.

Thirdly, future research should aim to develop additional measurement tools to assess, in particular, the level of immersion of study abroad program components and, in general, the depth of other international and cross-cultural experiences including expatriate assignments, internships abroad, visits to foreign subsidiaries, and intra-national experiences. There are many different types of cross-cultural exposure experiences that may lead to the development of CQ, however the lack of a tool to operationalize these types of experiences has hindered this area of research. A potential limitation of the study, as previously discussed, was that I relied on a classification system to identify and categorize study abroad program components because of the absence of measures to examine international experience in detail. While differences in CQ were found between the levels of immersion of some study abroad program components and not others, additional research using these variables is needed before these relationships can be corroborated. The first step towards this is the development of a valid and reliable measurement tool to assess the level of immersion of study abroad program components.

Lastly, beyond future studies aimed at overcoming the limitations of this study, additional investigations utilizing Thomas et al.'s (2008) conceptualization of CQ and, for its measurement, the SFCQ (Thomas et al., 2015) are needed. This conceptualization overcomes several of the limitations that have been linked to Earley and Ang's (2003) conceptualization of CQ (Blasco et al., 2012; Thomas, 2010). Thomas et al. (2012) originally developed a web-based measurement tool utilizing multiple assessment approaches to measure CQ, heeding Lee and Templer's (2003) warning that "any assessor who limits him- or herself to only one assessment method is making a serious error and indeed may not actually be conducting an overall CQ assessment, but rather a limited measurement of a single attribute of CQ" (p. 208). However, due to the complexity of the tool it was under-utilized, leading them to develop the SFCQ (Thomas et al., 2015). To my knowledge, mine is one of the first studies to employ the SFCQ to measure CQ. Although Thomas et al. (2015) rigorously tested the reliability and validity of the SFCQ, including its correlation to other intercultural effectiveness outcomes, its incorporation into studies that utilize the CQ construct provides a fruitful opportunity to further extend this scholarly conversation.

7.7 Conclusion

MNCs employ expatriates to support their IB activities for multiple reasons (Shen & Edwards, 2004). Expatriates regularly work across cultural borders, requiring them to interact with individuals from multiple countries. CQ is a set of skills that assists individuals to "adapt to, select, and shape the cultural aspects of their environment" (Thomas et al., 2008, p. 126),

resulting in more constructive cross-cultural interactions. Because CQ has been demonstrated to facilitate expatriates' adjustment and the success of their international assignments (Chen et al., 2010; Lee, 2010; Lee & Sukoco, 2010; Malek & Budhwar, 2013; Rose et al., 2010; Templer et al., 2006), there is interest in identifying activities that develop CQ. It is suggested that international experience and exposure to other cultures provide individuals with opportunities to attain cultural knowledge and skills that result in the development of their CQ (Earley & Ang, 2003; Thomas et al., 2008). However, this assumption has not been consistently verified in scholarly investigations. Through my systematic and extensive review of relevant literature, I demonstrated a lack of theoretical grounding to anticipate this relationship and identified a need for more detailed examinations of the international experience construct as potential reasons for the inconsistent results of previous research.

To address these theoretical and methodological weaknesses, I applied SLT (Bandura, 1977) to the link between international experience and CQ, and developed a theoretical framework that explained why international experience influences CQ. I tested one of the propositions of the framework, which suggested that it is by being a part of the learning environment and going through the attention, retention and reproduction learning processes that individuals learn new skills. I treated study abroad as a type of non-work international experience, and collected original empirical data about the components of students' study abroad programs (Engle & Engle, 2003) and their CQ. I analyzed the data to determine if and how the level of immersion of the study abroad program components impacted CQ. I contributed to the scholarly conversation on CQ and provided insights to study abroad administrators and IHRM. My research is among the first studies to attempt to measure differences in CQ based on a micro-level examination of an international experience. This is a very novel approach that constitutes a first step, albeit small, towards gaining a better understanding of how CQ can be developed from international experiences.

In a recent review, Bird and Mendenhall (2016) discussed the chronological trends of the cross-cultural management field and stated the following about the global focus of the current business environment with respect to the role of expatriates as global leaders:

In essence, they can be called on to lead “anyone, anywhere, at any time.” The global category does not necessitate global leaders putting aside the skills they have gained that were identified in findings from cross-cultural management research. Rather, it requires adding to that repertoire of knowledge and skills. (p. 117)

Being able to interact with people who are culturally different is the essence of being global, and while particularly applicable to expatriates as global leaders, “is now a fundamental

requirement of all of us in today's global environment" (Thomas & Inkson, 2009, p. 19). CQ is a culturally invariant construct, which acknowledges that while cultures are different, the ways in which individuals interact with members of other cultures may not be (Caprar, Devinney, Kirkman, & Caligiuri, 2015). Having CQ definitely improves the effectiveness and quality of cross-cultural interactions, however, knowing what skills and abilities improve expatriates' cross-cultural interactions is only part of what is needed; knowing what activities contribute to the development CQ is also necessary and is where this thesis contributes.

Appendices

Appendix A.

Study questionnaire



**THE UNIVERSITY
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BUSINESS SCHOOL

Department of Management and
International Business

Queries and comments please contact:

Dana L Ott
PhD Candidate
Department of Management & International Business
The University of Auckland Business School
Private Bag 92019, Auckland 1142 New Zealand
Owen G. Glenn Building, 12 Grafton Road, Auckland Central, New Zealand
Email: d.ott@auckland.ac.nz

Professor Dana Minbaeva, PhD
Department of Strategic Management and Globalization
Copenhagen Business School
PhD Co-Supervisor
Ph: +45 22482343
Email: dm.smg@cbs.dk

Professor Snejina Michailova, PhD
Department of Management & International Business
The University of Auckland Business School
PhD Main Supervisor
Ph: +64 9 373 7599 ext. 88737
Email: s.michailova@auckland.ac.nz

INTRODUCTION AND CONFIDENTIALITY STATEMENT

Researcher Introduction

Ms. Dana L. Ott is a visiting PhD student at Copenhagen Business School in the Department of Strategic Management and Globalization and is a PhD Candidate in the Management and International Business Department at The University of Auckland Business School (UABS) under the supervision of Professor Snejina Michailova and Professor Dana Minbaeva.

Project Procedures

The aim of this survey research project is to learn more about your background and the outcomes of your participation in study abroad. We are asking you to complete an anonymous survey. The survey is administered through a secure website and we expect your time commitment to this study to be about 15-20 minutes.

Your completion of the survey and participation in this research project is beneficial to you because:

- It measures the important skills future employers are looking for to determine if they are outcomes of your participation in a study abroad
- It will give you quantifiable evidence of the benefits of your study abroad participation
- It will provide you with selling points for future international employers about the benefits of your study abroad participation
- It helps CBS to continue offering and exploring new opportunities for study abroad
- It gives you a chance to reflect on the positives and benefits of your decision to study abroad

Participation in this study is voluntary. No one will know who participates or does not participate. No individual responses will be shared.

Data Storage/Retention/Destruction/Future Use

All data collected through this survey will be stored securely on the University of Auckland premises for six years on password protected University computers or in secured lockers. After the prescribed period of storage, all data will be destroyed by secure file erase.

Gathered data from this survey will be statistically analyzed and information gained from this analysis may be used in the preparation of public seminars, media releases, materials for teaching, journal publications, book publications, business cases, a PhD thesis, and other research outputs. If the information obtained from your participation in this project is reported or published, this will be done at an aggregate level that provides for complete anonymity, without any identifiable details of you.

Right to Withdraw from Participation

Participation in this research is voluntary and you may decline to take part without giving a reason.

Completion and submission of the survey is taken as giving consent to participate because responses are anonymous. Because the survey is anonymous and therefore not identifiable, it will not be possible to withdraw individual data later.

Anonymity and Confidentiality

All survey responses are anonymous. All individual responses or personal information that may be gathered in the course of the project are anonymous. No personal information about you will be disclosed to third parties. You will not be identified in any publication of these research results.

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

The questionnaire contains 5 sections. Please answer honestly and to the best of your knowledge.

There are instructions at the beginning of each section of the questionnaire to guide you. Please read each set of instructions to the end before you start carrying it out.

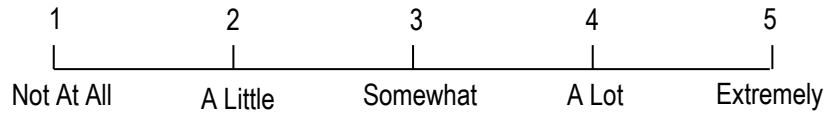
Please begin by answering the following questions:

What is your gender?	Male	Female
Please select your age.	Dropdown of Ages from 18 to 99	
Please select your current level of study at CBS.	Graduate, Undergraduate, Other: Please specify	
Please select your current course of study at CBS.	Dropdown Options, Other: Please specify	
Please select the university you are attending/attended for your study abroad.	Dropdown Options, Other: Please specify	

SECTION A

This section of the questionnaire includes 10 statements about one's experience when interacting with people from other cultures. Please indicate to what extent each of the following statements describes you, on a scale ranging from Not At All to Extremely.

There are NO RIGHT OR WRONG ANSWERS to these statements. You do not need to spend much time considering every statement; instead give the first answer that you think best describes you.



- | | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| A1. I know the ways in which cultures around the world are different. | 1 | 2 | 3 | 4 | 5 |
| A2. I can give examples of cultural differences from my personal experience, reading, and so on. | 1 | 2 | 3 | 4 | 5 |
| A3. I enjoy talking with people from different cultures. | 1 | 2 | 3 | 4 | 5 |
| A4. I have the ability to accurately understand the feelings of people from other cultures. | 1 | 2 | 3 | 4 | 5 |
| A5. I sometimes try to understand people from another culture by imagining how something looks from their perspective. | 1 | 2 | 3 | 4 | 5 |
| A6. I can change my behaviour to suit different cultural situations and people. | 1 | 2 | 3 | 4 | 5 |
| A7. I accept delays without becoming upset when in different cultural situations and with culturally different people. | 1 | 2 | 3 | 4 | 5 |
| A8. I am aware of the cultural knowledge I use when interacting with someone from another culture. | 1 | 2 | 3 | 4 | 5 |
| A9. I think a lot about the influences that culture has on my behaviour and that of others who are culturally different. | 1 | 2 | 3 | 4 | 5 |
| A10. I am aware that I need to plan my course of action in different cultural situations and with culturally different people. | 1 | 2 | 3 | 4 | 5 |

SECTION B

This section of the questionnaire includes 23 statements about your feelings and actions when in a different culture. Think about how you felt when in another culture and how you would feel if in another culture. Please select the number corresponding to the scale below ranging from whether you Strongly Disagree to whether you Strongly Agree with the statement.

There are NO RIGHT OR WRONG ANSWERS to these statements. You do not need to spend much time considering every statement; instead give the first answer that you think best describes you.

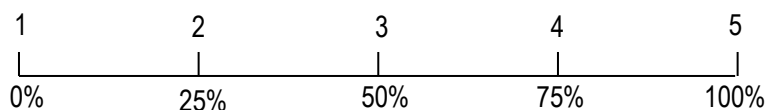
1	2	3	4	5
Strongly Disagree	Disagree A Little	Neither Agree nor Disagree	Agree A Little	Strongly Agree

B1.	When I make my plans in a new culture, I am certain I can make them work.	1	2	3	4	5
B2.	One of my problems is that I cannot get down to work in a new culture when I should.	1	2	3	4	5
B3.	If I can't do a job the first time in a new culture, I keep trying until I can.	1	2	3	4	5
B4.	When I set important goals for myself in a new culture, I rarely achieve them.	1	2	3	4	5
B5.	I give up on things before completing them in a new culture.	1	2	3	4	5
B6.	I avoid facing difficulties in a new culture.	1	2	3	4	5
B7.	If something looks too complicated in a new culture, I will not even bother to try it.	1	2	3	4	5
B8.	When I have something unpleasant to do in a new culture, I stick to it until I finish it.	1	2	3	4	5
B9.	When I decide to do something in a new culture, I go right to work on it.	1	2	3	4	5
B10.	When trying to learn something new in a new culture, I soon give up if I am not initially successful.	1	2	3	4	5
B11.	When unexpected problems occur in a new culture, I don't handle them well.	1	2	3	4	5
B12.	I avoid trying to learn new things when they look too difficult for me in a new culture.	1	2	3	4	5
B13.	Failure just makes me try harder in a new culture.	1	2	3	4	5
B14.	I feel insecure about my ability to do things in a new culture.	1	2	3	4	5

B15. I am a self-reliant person in a new culture.	1	2	3	4	5
B16. I give up easily in a new culture.	1	2	3	4	5
B17. I do not seem capable of dealing with most problems that come up in life in a new culture.	1	2	3	4	5
B18. It is difficult for me to make new friends in a new culture.	1	2	3	4	5
B19. If I see someone I would like to meet while in a new culture, I go to that person instead of waiting for him or her to come to me.	1	2	3	4	5
B20. If I meet someone interesting in a new culture who is hard to make friends with, I'll soon stop trying to make friends with that person.	1	2	3	4	5
B21. When I'm trying to become friends with someone in a new culture who seems uninterested at first, I don't give up easily.	1	2	3	4	5
B22. I do not handle myself well in social gatherings in a new culture.	1	2	3	4	5
B23. I have acquired my friends in a new culture through my personal abilities at making friends.	1	2	3	4	5

SECTION C

This section of the questionnaire includes 20 situations in which a person might choose to communicate or not to communicate when in a new culture. Presume you have *completely free choice*. Select what **percent of the time** you would choose to communicate in these situations when in a new culture.



C1.	Talk with a gas/petrol station attendant in a foreign country.	1	2	3	4	5
C2.	Talk with a physician/doctor in a foreign country.	1	2	3	4	5
C3.	Present a talk to a group of strangers in a foreign country.	1	2	3	4	5
C4.	Talk with an acquaintance while standing in line in a foreign country.	1	2	3	4	5
C5.	Talk with a salesperson in a store in a foreign country.	1	2	3	4	5
C6.	Talk in a large meeting of friends in a foreign country.	1	2	3	4	5
C7.	Talk with a police officer in a foreign country.	1	2	3	4	5
C8.	Talk in a small group of strangers in a foreign country.	1	2	3	4	5
C9.	Talk with a friend while standing in line in a foreign country.	1	2	3	4	5
C10.	Talk with a waiter/waitress in a restaurant in a foreign country.	1	2	3	4	5
C11.	Talk in a large meeting of acquaintances in a foreign country.	1	2	3	4	5
C12.	Talk with a stranger while standing in line in a foreign country.	1	2	3	4	5
C13.	Talk with a secretary in a foreign country in a foreign country.	1	2	3	4	5
C14.	Present a talk to a group of friends in a foreign country.	1	2	3	4	5
C15.	Talk in a small group of acquaintances in a foreign country.	1	2	3	4	5
C16.	Talk with a garbage collector in a foreign country.	1	2	3	4	5
C17.	Talk in a large meeting of strangers in a foreign country.	1	2	3	4	5
C18.	Talk with a partner (or girl/boyfriend) in a foreign country.	1	2	3	4	5
C19.	Talk in a small group of friends in a foreign country.	1	2	3	4	5
C20.	Present a talk to a group of acquaintances in a foreign country.	1	2	3	4	5

SECTION D

This section of the questionnaire includes 10 statements to assess what personality characteristics apply to you. Below are a number of statements that may or may not apply to you. Please select the number corresponding to the scale below ranging from whether you Strongly Disagree to whether you Strongly Agree with the statement.

There are NO RIGHT OR WRONG ANSWERS to these statements. You do not need to spend much time considering every statement; instead give the first answer that you think best describes you.

1	2	3	4	5
Disagree Strongly	Disagree A Little	Neither Agree nor Disagree	Agree A Little	Agree Strongly

D1. I see myself as someone who is reserved.	1	2	3	4	5
D2. I see myself as someone who is generally trusting.	1	2	3	4	5
D3. I see myself as someone who tends to be lazy.	1	2	3	4	5
D4. I see myself as someone who is relaxed, handles stress well.	1	2	3	4	5
D5. I see myself as someone who has few artistic interests.	1	2	3	4	5
D6. I see myself as someone who is outgoing, sociable.	1	2	3	4	5
D7. I see myself as someone who tends to find fault with others.	1	2	3	4	5
D8. I see myself as someone who does a thorough job.	1	2	3	4	5
D9. I see myself as someone who gets nervous easily.	1	2	3	4	5
D10. I see myself as someone who has an active imagination.	1	2	3	4	5

SECTION E

Finally, we would like to know more about you and your study abroad experience. This section includes 14 questions. A study abroad experience is defined as university/college level study that occurred outside your home university.

E1.	Please select your nationality.	<i>Dropdown Options, Other: Please Specify</i>	
E2.	Please select the country where you permanently live when not studying abroad.	<i>Dropdown Options, Other: Please Specify</i>	
E3.	Please select your native language.	<i>Dropdown Options, Other: Please Specify</i>	
E4.	If you speak or understand any additional languages, please select the language(s) and your level of fluency for each language. (Up to 3)	<i>Dropdown Options, Other: Please Specify (Up to 3)</i> <i>Dropdown to select level for each language: Beginner, Elementary to Intermediate, Pre-advance to Advanced, Bilingual/Fluent</i>	
E5.	Is this your first study abroad experience?	Yes	No
E6.	Please select the country/countries where you studied abroad and the corresponding length of those experiences. (Up to 3)	<i>Dropdown Options, Other: Please Specify (Up to 3)</i> <i>Dropdown list of length: Several days to a few weeks, 3 to 8 weeks or summer program, Semester, Semester to academic year, Academic year or more</i>	
Please answer these questions about your most recent or current study abroad experience.			
E7.	Please select the answer that best describes the level of native language understanding needed before arriving in the country where you are studying/studied abroad.	<input type="radio"/> None <input type="radio"/> Elementary to intermediate <input type="radio"/> Intermediate to pre-advanced <input type="radio"/> Pre-advanced to advanced <input type="radio"/> Advanced	
E8.	Please select the answer(s) that best describe the type of courses that you are taking/took while studying abroad (you can select more than one option).	<input type="radio"/> Language courses <input type="radio"/> Culture or history courses <input type="radio"/> General business courses <input type="radio"/> Specific topic business courses (i.e. Finance, Accounting, Economics) <input type="radio"/> Other: Please specify	
E9.	Please select the answer that best describes the language used in the courses you are completing/completed while studying abroad.	<input type="radio"/> English only <input type="radio"/> English and native language of the country <input type="radio"/> Predominantly in the native language of the country <input type="radio"/> In the native language of the country in all courses and extracurricular activities	

E10.	Please select the answer(s) that best describe the teaching of academic courses you are taking/took while studying abroad (you can select more than one)	<ul style="list-style-type: none"> ○ Courses were taught by faculty from my home university ○ I am taking/took courses only for study abroad students ○ I am taking/took courses taught by local faculty only for study abroad students ○ I am taking/took courses taught by local faculty along with students from the local university
E11.	Please select the answer that best describes your housing situation while you study/studied abroad.	<ul style="list-style-type: none"> ○ Collective with other study abroad students (i.e. dorm rooms) ○ Collective with students from the local university (i.e. dorm rooms) ○ Home stay with other study abroad students ○ Apartment rental ○ Individual home stay with a local family
E12.	Please select the answer that best describes the opportunities for cultural interaction and/or experiential learning provided by your study abroad (i.e. networking opportunities, internships, service-learning, volunteering, community service, etc.)	<ul style="list-style-type: none"> ○ There are/were no opportunities for cultural interaction or experiential learning provided ○ There are/were some limited opportunities for cultural interaction or experiential learning provided ○ There are/were regular and optional participation opportunities for cultural interaction or experiential learning provided ○ There are/were regular and required participation opportunities for cultural interaction or experiential learning provided
E13.	Please select the answer that best describes your level of participation in the opportunities for cultural interaction and/or experiential learning.	<ul style="list-style-type: none"> ○ I did not participate ○ I participated some of the time ○ I participated all of the time
E14.	Please select the answer that best describes the extent to which your study abroad program offers/offered an opportunity to reflect on your cultural experience.	<ul style="list-style-type: none"> ○ There were no guided reflections or cultural orientation/information sessions offered ○ There was an orientation program that included information about culture ○ There was an orientation program that included information about culture and additional sessions throughout the duration of my study abroad ○ There were opportunities to reflect on the cultural experience such as mentoring, courses in cultural perspectives, opportunities to write or research culture among others

Thank you very much for your time and for being a part of this research project.

If you are interested in receiving an individualized Cultural Intelligence index report based on your responses, please include your email address.

Appendix B.

Proposal for the intended study

What's in it for the X International Office?

On the X International Office website you provide 10 good reasons for why going on exchange is a brilliant idea, including that exchange will “increase your cultural awareness and understanding” and it will “strengthen your competitive advantage”. However,

- Do X exchange participants actually develop the skills to be future global leaders?
- Do X exchange participants cultivate cultural intelligence?
- Do X exchange participants have the knowledge, skills, and abilities to adapt and adjust to multiple cultural environments?
- And most importantly, what aspects of X exchanges (content and design) contribute to the development of the global leadership skills, cultural intelligence and ability to adjust to multiple cultural environments?

The answers to these questions can be quickly gained through your participation in an academic research project aimed at answering exactly those questions.

What do we need?

We need the *background information* on X exchange participants, such as

- Bio data (age, gender, nationality, education, prior experience)
- X exchange education data (what kind of courses, which schools, for what period of time, the location of partner institutions)

We will also need permission to contact X exchange participants with *a short web-based survey* asking them to evaluate their current level of cultural intelligence, willingness to communicate, and self-efficacy¹. Here are some examples of the questions we would like to ask in the survey:

- I have the ability to accurately understand the feelings of people from other cultures.
- I am aware that I need to plan my course of action in different cultural situations and with culturally different people.
- When I make my plans in a new culture, I am certain I can make them work.
- When trying to learn something new in a new culture, I soon give up if I am not initially successful.
- I have acquired my friends in a new culture through my personal abilities at making friends.

What kind of outcomes shall you expect?

We will prepare a *report* for the X International Office describing and interpreting the results. Ideally, it would be great to present the results at the *meeting/workshop* with you and members of your office so we can discuss the implications of the different programs content and design.

¹ Cultural intelligence is an individual's ability to adapt and interact across cultural contexts. Willingness to communicate is an individual's willingness to talk in cultural situations. Self-efficacy is an individual's belief in their ability to perform in a specific manner that will lead to a desired outcome.

We would like to produce an *academic paper* and publish it in a top journal such as Academy of Management Learning and Education. However, this is only if we get the clearance from you.

Who are we?

Dana Ott

Dana Ott, a PhD student from the Auckland University School of Business is visiting X this semester. Dana's research focuses on the outcomes of university students' participation in study abroad, exchange programs, and internship programs. More specifically, she seeks to investigate the influence of previous participation on the development of knowledge, skills and abilities beneficial to future expatriates when adjusting to new cultural environments while on international assignment².

Dana has several years of experience working as an academic advisor and coordinator of exchange and study abroad programs within universities in the United States. She worked closely with students before going abroad as outgoing students and with students while they were abroad as incoming students. She started several orientation programs and activities for students upon their arrival and has given multiple presentations to students and parents regarding the benefits of study abroad. As a current PhD student she has co-lectured a course on International Management and works on projects related to internationalization and expatriation.

Dana Minbaeva

Dana Minbaeva is a Professor of Strategic and Global Human Resource Management at Copenhagen Business School. Her research on strategic international HRM, knowledge sharing and transfer in multinational corporations has appeared in such journals as *Journal of International Business Studies*, *Journal of Management Studies*, *Human Resource Management*, *Human Resource Management Review*, *Management International Review*, etc. Dana is on Editorial Boards of *Human Resource Management* and *Human Resource Management Journal*. Previously, she has taught in Kazakhstan, Russia, Lithuania, Kyrgyzstan, and Finland as well as having held visiting research positions in the UK, Ireland, Australia and Canada.

Dana works in close contact with Danish MNCs. In 2008, she carried out the Organizational Audit for Global People and Organization, and later was invited to develop and roll-out the Global HR Strategy 2008-2010 for Chr. Hansen (www.chr-hansen.dk). She had been working with Ramboll (www.ramboll.dk) on implementation of Knowledge Management Strategy focusing on the role of group networks in this process, and followed the execution of Diversity Management Strategy in Novo Nordisk (www.novo.dk). On the ongoing basis, Dana cooperates with the Group HR of A.P.Møller-Maersk (www.maersk.com) on various global initiatives such as global talent management, performance management and managing diversity. She is a member of the Global Leadership Academy at Dansk Industri – Confederation of Danish Industries (DI) (<http://di.dk/globalleadershipacademy/Pages/default.aspx>).

Dana Minbaeva is the founder of the Human Capital Analytics Group at CBS: www.cbs.dk/hc-analytics

² Expatriates are defined as individuals relocated from their home-country to a host-country for employment purposes and international assignment is defined as home company supported relocation to a host-country for employment purposes.

Contacts

Dana Ott: d.ott@auckland.ac.nz and (45) 21667099

Dana Minbaeva: dm.smg@cbs.dk and (45) 22482343



Appendix C.

Survey invitation email

Subject: Survey: Outcomes of participation in study abroad

Dear Student,

In collaboration with the International Office at XXXXX, we invite you to participate in a research project about the outcomes of your study abroad experience by completing a short survey.

What's in it for you?

You decided to study abroad for a reason, right? So what will your completion of this survey do for you:

- It measures important skills employers are looking for, like cultural intelligence, to determine if they are outcomes of your study abroad participation
- It will provide quantifiable evidence of the benefits of your study abroad participation
- It will provide you with selling points for future international employers about the benefits of your study abroad participation
- It gives you a chance to reflect on the positives and benefits of your decision to study abroad

What you need to do?

Complete the survey at <https://www.survey-xact.dk/LinkCollector?key=5S59MQ2A913P> and include your email address at the end to receive your individualized Cultural Intelligence index report.

Thank you!!

Dana Ott, Ph.D. student
Management and International Business Department
The University of Auckland Business School
Currently visiting CBS
d.ott@auckland.ac.nz

Dana Minbaeva, MBA, Ph.D.
Professor(mso) in Strategic and Global HRM, Department of Strategic Management and Globalization
Head of the Ph.D. School in Economics and Management
Copenhagen Business School

Appendix D.

Survey reminder email

Subject: Survey reminder

Dear Student,

If you have not already done so, please take a few minutes of your time to complete a survey about your Study Abroad Experience. The survey can be accessed at <https://www.survey-xact.dk/LinkCollector?key=5S59MQ2A913P>.

Completion of the survey will really help me to complete my PhD research and provide you with an individualized Cultural Intelligence index report. My research will also result in publications about the benefits of study abroad participation for future international employees, which will help you when applying for employment.

Thank you to everyone who has already completed the survey, I really appreciate! If you completed the survey and requested an individualized Cultural Intelligence index report, you should have received it. If you requested the report but have not received it, please email me at d.ott@auckland.ac.nz.

Thank you,
Dana
PhD Candidate

Appendix E.

Parameter estimates

Table E1 Parameter estimates for the control variables (gender, age, self-efficacy, extraversion, agreeableness, conscientiousness, neuroticism, openness, cultural distance, and first study abroad) and the independent variables (entry-target language competence, language of instruction used in course-work, type of housing, opportunities for cultural interaction/experiential learning, and opportunities for guided reflection on the cultural experience).

Parameter estimates							
Parameter	B	Std. Error	95% Wald confidence interval		Hypothesis test		
			Lower	Upper	Wald chi-square	df	Sig.
(Intercept)	2.617	.4971	1.642	3.591	27.703	1	.000
Gender	-.021	.0568	-.132	.091	.133	1	.715
Age	-.007	.0145	-.036	.021	.256	1	.613
Self-efficacy	.361	.0720	.220	.503	25.179	1	.000
Extraversion	.027	.0298	-.031	.086	.837	1	.360
Agreeableness	-.050	.0367	-.122	.022	1.861	1	.173
Conscientiousness	.060	.0336	-.006	.126	3.196	1	.074
Neuroticism	-.008	.0313	-.069	.054	.058	1	.809
Openness	-.039	.0320	-.102	.024	1.468	1	.226
Cultural distance	.015	.0184	-.021	.051	.667	1	.414
First study abroad	.005	.0539	-.101	.111	.009	1	.925
[Entry Language Level 5]	.075	.0778	-.078	.227	.921	1	.337
[Entry Language Level 4]	.021	.0810	-.138	.179	.064	1	.800
[Entry Language Level 3]	-.040	.0806	-.198	.118	.246	1	.620
[Entry Language Level 2]	.131	.0849	-.035	.297	2.380	1	.123
[Entry Language Level 1]	0 ^a	.	.	.	.	.	.
[Course Language Level 4]	.078	.1121	-.142	.298	.485	1	.486
[Course Language Level 3]	.351	.1564	.044	.657	5.022	1	.025
[Course Language Level 2]	.177	.0715	.037	.317	6.117	1	.013
[Course Language Level 1]	0 ^a	.	.	.	.	.	.
[Type of Housing Level 5]	.106	.1115	-.113	.324	.900	1	.343
[Type of Housing Level 4]	-.079	.0642	-.205	.047	1.516	1	.218
[Type of Housing Level 3]	.010	.0925	-.172	.191	.011	1	.918
[Type of Housing Level 2]	-.031	.0738	-.175	.114	.172	1	.678
[Type of Housing Level 1]	0 ^a	.	.	.	.	.	.
[Cultural Interaction Level 3]	.017	.0943	-.168	.202	.033	1	.856
[Cultural Interaction Level 2]	.001	.0656	-.128	.129	.000	1	.993
[Cultural Interaction Level 1]	0 ^a	.	.	.	.	.	.
[Cultural Reflection Level 4]	.077	.0934	-.106	.260	.684	1	.408
[Cultural Reflection Level 3]	.156	.0794	.001	.312	3.868	1	.049
[Cultural Reflection Level 2]	-.070	.0619	-.191	.052	1.262	1	.261
[Cultural Reflection Level 1]	0 ^a	.	.	.	.	.	.
(Scale)	.128 ^b	.0120	.107	.154			
Dependent Variable: CQ							
Model: (Intercept), Gender, Age, Self-efficacy, Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness, Cultural distance, First study abroad, Entry-target language competence, Language of instruction used in course-work, Type of housing, Opportunities for cultural interaction/experiential learning, Opportunities for guided reflection on the cultural experience							
a. Set to zero because this parameter is redundant.							
b. Maximum likelihood estimate.							

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