California State University,

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THE IMPACT OF CULTURAL INTELLIGENCE LEVELS ON COMMUNITY COLLEGE FACULTY CONFLICT MANAGEMENT PREFERENCES: A QUANTITATIVE STUDY

A DISSERTATION

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By

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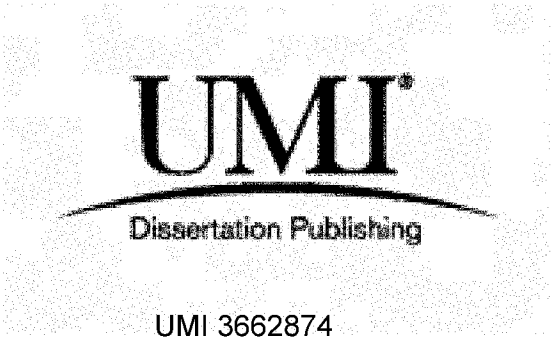

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ABSTRACT

The purpose of this study was to discover if a relationship existed between cultural intelligence (CQ) and conflict management style preferences for community college faculty who work with culturally diverse student populations. Drawing from a sample of full- time community college faculty, this study used the 20-item cultural intelligence scale instrument that measures the four components of CQ, including motivational CQ, behavioral CQ metacognitive CQ, and cognitive CQ (Ang et al., 2007). This study used Rahim's Organizational Conflict Inventory II (Rahim, 2010) to measure five styles of conflict management, including integrating, dominating, compromising, avoiding, and accommodating. The results of this study indicate that of the four factors of CQ, motivational CQ was the highest and cognitive CQ was the lowest in community college faculty. Factors such as number of languages spoken, academic discipline, and travel outside of the United States were predictors of CQ. The results of this study indicate that community college faculty have a preference for an integrating style of conflict management and that academic discipline, gender, and years teaching predict conflict management style preferences. The findings in this study also indicate that the four factors of CQ correlate with faculty conflict management style preferences. When controlling for gender, age, and ethnicity, there are significant correlations among the four factors of CQ and three of the conflict styles. The four factors of CQ combined correlated with integrating,

dominating, and compromising conflict styles, and avoiding and obliging were nearing significance. Individually, metacognitive CQ and motivational CQ positively correlated to an integrating conflict style. Motivational CQ negatively correlated to dominating conflict style. Behavioral CQ correlated to a dominating conflict management style. None of the four factors of CQ individually predicted avoiding and obliging conflict style, though in both cases it was approaching significance. Based on the findings of this research study, there are four recommendations for practitioners in higher education: Expand research on cultural intelligence and conflict management within the domain of higher education; integrate cultural intelligence and conflict management into higher education curriculum; establish institutionally supported ongoing professional development in cultural intelligence and conflict management; and develop student-centered campus-level cultural intelligence and conflict management initiatives.

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Reach high, for stars lie hidden in your soul.

Dream deep, for every dream precedes the goal.

—Pamela Vaull Starr

To my husband, Ryan Nagao, and my daughters, Liana and Sophia.

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CHAPTER 1

INTRODUCTION

There is a growing cultural gap in many of the nation's community college campuses as educators strive to serve students from cultures other than their own. Community college student and faculty populations are more diverse than ever in terms of ethnicity (American Association of Community Colleges [AACC], 2013), yet scholars lack an understanding of whether or not faculty members have the skill set to be effective in diverse educational settings (Valentine, Prentice, Torres, & Arellano, 2012). Although ethnic, racial, and cultural diversity in college classrooms has shown several positive educational outcomes, research has also shown that increases in diversity of the student population can contribute to increases in conflict (Chang, Astin, & Kim, 2004; Gurin, 2003; Marin, 2000; Pike & Kuh, 2006; Sidanius, Levin, van Laar & Sears, 2008; Stephan & Vogt, 2004). Faculty who lack cultural competence and conflict management skills may alienate students, faculty, and administrators, increasing the risk of student failure, employee turnover, and job dissatisfaction (Mahon, 2009; Runde & Flanagan, 2010).

In light of changing demographics in the U.S. population and the globalization of the employment market, higher education is being called on to develop graduates with intercultural competence so that they can be competitive in the globalized 21st century (Association of American Colleges and Universities

[AACU], 2008). If community colleges are to meet the objectives presented by the AACU, faculty need to be intelligent in more ways than just academics—faculty must be flexible in adapting to the changing makeup of the community college student population. Cultural intelligence (CQ; Ang, Van Dyne, & Koh, 2006), a new theory on cultural competence, may help to explain and operationalize the skills needed by educators to work with culturally diverse individuals. Cultural intelligence is referred to as CQ, for cultural intelligence quotient. Goh (2012) stresses that "how culturally intelligent our students become is a function of a teachers' own level of cultural intelligence" (p. 402).

This research dissertation examines levels of faculty member's CQ and the impact of those levels on conflict management styles in the context of community colleges. Chapter 1 provides the background of the problem, followed by the problem statement, the purpose of the research, the research questions, the significance of the study, the scope of the study, and the definitions of key terms.

Background of the Problem

In 2008, the AACU published the influential report *Liberal Education and America's Promise (LEAP): Excellence for Everyone as a Nation Goes to College.* LEAP recommended four core-learning outcomes that students should possess to be competitive in the 21st century. The four outcomes recommended by LEAP include (a) knowledge of human cultures and the physical and natural world, (b) intellectual and practical skills, (c) personal and social responsibilities, and (d) integrative learning across disciplines. Furthermore, LEAP stressed the

component of personal and social responsibilities that focuses on the development of intercultural competence. Intercultural communication competence is thoroughly defined by Kupka (2008) as the

> impression management that allows members of different cultural systems to be aware of their cultural identity and cultural differences, and to interact effectively and appropriately with each other in diverse contexts by agreeing on the meaning of diverse symbol systems with the results of mutually satisfying relationships. (p. 16)

If college faculty members are to promote cultural competence in students, the faculty must first possess cultural competence (Langelier, 2006). Nonetheless, post-9/11 research has shown that less than 10% of college graduates have the intercultural competence or knowledge, experience, and training to prepare for the global workplace (Clifford, 2004). If higher education is to meet the objectives presented by LEAP, community college faculty need a skill set beyond their academic discipline area. This next section details the increasing diversity of California community college students, the role of college faculty, the experience of faculty–student conflict, and the function of cultural competence.

Diversity in California Community Colleges

Bennett and Salonen wisely observed that campuses today are "culturally complicated" (2007). Students, instructors, and administrators are from increasingly diverse backgrounds, with unique beliefs, values, and expectations about education. This next section briefly overviews key factors related to cultural diversity in community colleges.

Student demographics. Without a doubt, community colleges are attracting a more diverse student body. Nevarez and Wood (2010) attribute increasing student diversity to open-door admission policies that welcome "students of color, part-time students, retirees, and even those who were formerly incarcerated" (p. 152). Community college student populations reflect the growing diversity of the United States. According to the AACC, in 2013 the nationwide makeup of community college students was as follows: 68% White, 15 % Hispanic, 13% Black, 6% Asian/Pacific Islander, 1% Native American, 2% nonresident, and 6% unknown. These statistics by themselves reflect a diverse student population. However, in 2013 the State of California provided a picture different from the national numbers: 11% Asian, 32% White, 33% Hispanic, 7% African American, 3% Filipino, .6% Native American, and 7% unknown (California Post-Secondary Education Commission, 2013). Changes in the ethnic makeup of students, combined with cultural differences such as languages, values, and beliefs, are transforming the educational environment (Samovar, Porter, McDaniel, & Roy, 2013).

Segregated high schools and communities have further influenced the changing demographics of college students. "Students typically enter college from racially and ethnically segregated secondary schools and neighborhoods. . . . As a result, they often do not always understand or agree with their peers who have different backgrounds" (Pasque, Chesler, Charbeneau, & Carlson, 2013, p. 1). Thus, when students transition from racially segregated high schools

and neighborhoods to diverse college settings they may experience a loss of a sense of community and increased conflict (Marin, 2000; Sidanius et al., 2008).

English language learners. The ethnic diversity of community college students is growing in tandem with an increasing population of English language learners (ELLs). Nationwide, there are limited resources to track the number of ELLs in the community college system (Kanno & Cromley, 2013). However, examining ELL students in the K-12 system provides a snapshot of the ELL population in community colleges. According to the National Clearinghouse for English Language Acquisition (2011), there are over five million ELLs in K-12 public schools in the United States, which make up 10.8% of all students. The U.S. Department of Education predicts that this population will grow to 25% of all students by 2025 (Spellings, 2005). If ELLs are rapidly increasing in number in K-12 schools, they are likely to be a growing presence in higher education as well. ELLs are not only adjusting to language differences, they are bringing their cultural background into the classroom. Curry (2001) has suggested that ELL community college students may lack the confidence to form relationships with faculty, resulting in high attrition rates. Community colleges need faculty who can bridge this gap.

International students. Higher education has experienced a dramatic increase in the enrollment of international students (D. Gross, 2013). In the 2011 academic year, enrollment of international students reached an all-time nationwide high of 764,495 students. The State of California ranks number one in the nation for enrolled international students, with 102,789 international

students in 2011/2012. Many community colleges began actively recruiting international students in the 1990s as a mechanism to generate revenue (Weiss, 1997). For example, in 2010/2011, Santa Monica College showed an enrollment of 3,212 international students, over 11% of the college's total enrollment. These students generated $17,869,500 in tuition and fees for the college (Douglass, Edelstein, & Hoareau, 2011). International students face several potential cultural challenges, including language barriers, different academic expectations, and culture shock. Miller and El-Aidi (2009), in a study of 191 international college students, found all participants experienced culture shock. As a result of exposure to the new environment, the students reported feeling irritable, homesick, intense loyalty to their home cultures, loss of appetite, boredom, a need for excessive sleep, depression, loss of ability to study effectively, marital or relationship stress, and general feelings of illness. The increase in the enrollment of international students adds an additional dimension to the growing diversity on college campuses.

With increased diversity on college campuses, the classroom setting is composed of many different cultural backgrounds. Culture is "a learned meaning system that consists of patterns of traditions, beliefs, values, norms, meanings, and symbols that are passed on from one generation to the next and are shared to varying degrees by interacting members of a community" (Ting-Toomey & Chung, 2005, p. 28). Although students vary in the degree to which they identify with their culture, faculty responsiveness to students' diverse cultural

backgrounds may help translate knowledge into effective instruction (National Education Association [NEA], 2012, p. 12).

Faculty demographics. Although community college student populations reflect demographic changes in the U.S. population, higher education faculty populations in California have been slower to change (Murphy, 2014). This is significant because cultural patterns in the United States tend to adhere to European American values as reflected by the cultural background of the faculty. According to the California Community College Data Mart, as of 2013 the makeup of California community college faculty was as follows: African American 5.47%, American Indian 0.84%, Asian 8.7%, Hispanic 13.9%, multiethnic 0.96%, Pacific Islander 0.28%, Unknown 5.5%, and White, non-Hispanic

64.35%.

Shulock (2001) has identified diversity as one of the biggest challenges facing California community college educators. She wrote:

> Leaders in the California Community Colleges need to understand the enormous diversity in the student body in terms of ethnicity, age, language, preparation for college work, learning styles, and educational goals. Diversity goes hand in hand with the multiple missions assigned to the community colleges. Transfer-seeking students have different goals and needs than students taking basic skills courses or those seeking their first jobs, or those returning students seeking to retrain for the information economy. Contributing to the diversity across the student body is the

> rapidly changing demographics. Regardless of program or educational goal, students who are immigrants, first-generation college students, limited English speakers, or economically disadvantaged require appropriate services, programs, and institutional cultures. The difficulties facing the K-12 system in graduating students with adequate skills for college and vocational study are inherited by the community colleges. All of these circumstances pose challenges for long-time leaders whose institutions are changing around them and for new leaders who must come equipped to lead successfully in this environment. (p. 4)

The transformation of community college student populations is of great significance to educators because they must use this change strategically to address the needs of diverse student groups. In order to be successful, community college educators must go beyond planning to increase their intercultural awareness by examining their own ethnic and cultural expectations about education.

Faculty attitudes. Community colleges have long recognized the value of diversity in higher education as evidenced by faculty attitudes, college policies, and hiring practices. A study of 55,000 college faculty found that greater than 90% of respondents believed that a racially and ethnically diverse environment enhanced students' educational experiences (Milem & Hakuta, 2000). In turn, policy makers have been encouraged to create laws and regulations that allow colleges to foster diversity through faculty hiring standards and procedures (Community College League of California, 1993). Nonetheless, the process for

hiring and developing culturally intelligent faculty is limited. Beyond the standard interview question that attempts to screen faculty for issues related to diversity, colleges do not really know the degree to which their faculty possess the necessary skills to provide culturally relevant engagement in the classroom.

Faculty relationships with students is a critical factor contributing to student success, yet research on community college faculty suggests that faculty members may lack the confidence and training in cultural competency necessary to effectively engage students (Cejda, & Hoover, 2009; Valentine et al., 2012). For example, a survey of approximately 500 faculty members found that although participants believed in the value of diversity in the classroom, the majority indicated that they made little or no changes in their teaching or classroom management practices in response to diversity (Maruyama, Moreno, Gudeman, & Marin, 2000). Additional research shows that teachers in urban, suburban, and rural schools tend to minimize the cultural differences of their students (Mahon, 2006). Part of the challenge is that many faculty feel that they lack the preparation and training necessary to engage diverse groups of students. A qualitative study of 27 community college and university professors found that faculty members perceived that they are unprepared and uncertain about what to do as instructors in culturally diverse classrooms (Valentine et al., 2012). Although students vary in the degree to which they identify with their culture, faculty responsiveness to students' diverse cultural backgrounds may help translate knowledge into effective instruction (NEA, 2012, p. 12).

Whether or not faculty are prepared to engage culturally diverse student populations is significant because the quality of student–faculty relationships is one of the best predictors of student engagement. For example, a study of student engagement examining a population of 4,501 students representing seven different racial groups found that student relationships with faculty was one of the strongest predictors of learning, especially for students of color (Lundberg & Schreiner, 2004). Other scholars stress that the educational environment fostered through faculty attitudes and behaviors has a vivid effect on student learning and engagement (Umbach & Wawrzynski, 2005).

Community college faculty must serve as cultural ambassadors to help students successfully navigate the cultural divide. Bensimon (2007) argues, "When practitioners lack knowledge of their students' cultural lives, they are severely limited in their capacity to adapt their actions and be responsive to the particularities of the situation as these individual students experience it" (p. 453). Furthermore, Goh (2012) stresses that "because the culturally diverse demographics of classrooms today create frequent value conflicts, it is not difficult to conduct oneself in a manner that unintentionally offends, or at worst, discriminates against students from cultural backgrounds different than our own" (p. 402). Although faculty cannot have knowledge of every aspect of students' cultural lives, possessing the motivation to learn, the knowledge of human culture, and the skill set to navigate diverse settings can help faculty be responsive to the individual needs of students.

Faculty–Student Conflict on College Campuses

Conflict is "an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce resources, and interference from others in achieving their goals" (Wilmont & Hocker, 2001, p. 41). Research has shown that ethnic, racial, and cultural diversity contributes to positive educational outcomes; nonetheless, research has also shown that increases in diversity can contribute to increases in conflict (Chang et al., 2004; Gurin, 2003; Marin, 2000; Pike & Kuh, 2006; Sidanius et al., 2008; Stephan & Vogt, 2004). Furthermore, research has demonstrated that culture can be a major factor determining conflict management preferences (Ting-Toomey, Yee-Jung, Shapiro, Wright, & Oetzel, 2000). Faculty who lack cultural competence and conflict management skills may alienate students, faculty, and administrators, increasing the risk of student failure, employee turnover, and job dissatisfaction (Mahon, 2009; Runde & Flanagan, 2010). For example, a qualitative study of 107 college students found that a third of the conflicts reported by students dealt with "dissatisfaction with professors' interpersonal conduct, perceived teaching deficits, discriminatory treatment, and lack of clarity or unwillingness to answer questions" (Tantleff-Dunn, Dunn, & Gokee, 2002, p. 200). Thus, students perceive not only conflict related to issues such as grades but also dissatisfaction in relation to how conflicts in the classroom are managed.

As communities, colleges, and workforces become increasingly diverse, so do the complexities created by culture. Cultural patterns in the United States tend to adhere to a European American value pattern; nonetheless, students,

instructors, and administrators have varying cultural backgrounds with unique beliefs, values, and expectations about education (Mahon, 2009; Samovar et al., 2013). As Torres (2006) notes, "Students do not leave their cultural values at the door" (p. 316). Changes in the makeup of community college students, educators, and leaders may create opportunities for conflict.

With increased cultural diversity, many systems experience increased conflict (Ting-Toomey & Oetzel, 2001). Many scholars recognize the significance of conflict within the work and school environment (Hamdorf, 2003; Mahon, 2009). Central to the successful negotiation of conflict are individuals that adapt their conflict management styles to the needs of the situation. In terms of education, an important part of a faculty member's job is the ability to solve conflicts. However, as community colleges experience changes in student, faculty, staff, and administrative populations, the complexity of solving those conflicts may increase as well. Scholars suggest that possessing cultural competence and CQ may help with the successful resolution of conflict (Reyes-Ramirez, 2010; Ting-Toomey, 2009).

Cultural Competence

Education scholars have attempted to address the importance of cultural competence for instructors by establishing a framework for competence. Diller and Moule (2005) define cultural competence for educators as

> the ability to successfully teach students who come from cultures other than our own. Cultural competence entails developing certain personal and interpersonal awareness and sensitivities, developing certain bodies

> of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural teaching. (p. 2)

Cultural competence for educators is important because successful education outcomes depend on teaching that is responsive to cultural diversity (Samovar et al., 2013). The National Education Association (NEA) (2012), in a policy brief entitled "Promoting Educators' Cultural Competence to Better Serve Culturally Diverse Students," outlines seven reasons educators should become culturally competent. In summary, the reasons include:

- Students are more diverse than ever.
- Culture impacts learning.
- Cultural competence can promote effective teaching.
- Cultural competence promotes educators to student–family outreach.
- Cultural competence helps to minimize student achievement gaps.
- Cultural competence reinforces American and democratic ideals.
- Cultural competence helps educators meet accountability requirements.

Cultural competence is a well-established construct in the field of education and recognized as an important skill for faculty (Moule, 2012).

Cultural competence has a strong foundation in fields such as education (Moule, 2012), communication studies (Spitzberg, 1988), and counseling and psychology (Goh, Koch, & Sanger, 2008). Nonetheless, there exists disagreement among scholars as to the best way to conceptualize and measure

cultural competence (Paige, 2004). Traditional conceptualizations of cultural competence are limited in that they fail to account for additional factors that may affect an individual's ability to work with people who are culturally different from themselves, such as problem solving and the need to interact with members of multiple cultures simultaneously (Earley, Ang, & Tan, 2006; Livermore, 2011).

A new theory of cultural competence has emerged known as cultural intelligence. As a new theory, CQ has the potential to synthesize multidisciplinary research efforts on cultural competence and provide a reliable way to increase faculty cultural competency. Goh (2012) argues that CQ is "one of the most recent but seminal and groundbreaking theories about cultural competence" yet it has not "had much presence in education and teacher education" (p. 396, 2012). The next section explores CQ and its components.

Cultural Intelligence

The construct of CQ provides scholars with a meaningful way to explain why some people are better able to navigate culturally diverse situations (Earley et al., 2006). CQ is "defined as an individual's capability to function and manage effectively in culturally diverse settings" (Ng, Van Dyne, & Ang, 2012, p. 32). Cultural competence and cultural effectiveness are analogous to CQ (Goh, 2012). Livermore (2011) succinctly summarizes the difference between cultural competence and CQ:

> CQ has some similarities with various approaches to cultural competence, but it differs in its specific ties to intelligence research. As a result, the emphasis is not only on understanding different cultures but also on

> problem solving and effective adaptations for various cultural settings. By using the "intelligence" approach, the CQ model also acknowledges that your multicultural interactions are as much personal, individualized experiences as they are simply knowing about differences between Germans and Koreans. (p. 5)

Other scholars agree that what sets CQ apart from other theories of cultural competence is that it is the first to focus on intercultural problem solving (Ng et al., 2012). Furthermore, Earley et al. (2006) stress that construct CQ is unique because it has a strong theoretical foundation in intelligence theory and places a heavy emphasis on effective problem solving. Although research on intercultural competence is not new, CQ scholars were the first to conceptualize this as a form of intelligence, in the same vein as emotional intelligence and multiple intelligences. However, Ng et al. (2012) are careful to distinguish CQ from other forms of intelligence. First, CQ refers to an individual's abilities and not an individual's personality traits. Second, CQ relies on culture-specific and culture-general knowledge as well as on specific behavioral skills, both of which can be learned and improved (Livermore, 2011).

In the field of cross-cultural competence, scholars describe CQ as "the new kid on the scientific block" (Gelfand, Imai, & Fehr, 2008, p. 376). The construct of CQ has rapidly gained acceptance in academic circles because it integrates research from a variety of disciplines (Gelfand et al., 2008). Research on CQ has increased to include international work settings, overseas work assignments, and cross-cultural teams (Ng et al., 2012). Initially developed as a

theory to help explain factors related to cross-cultural interactions, CQ may have practical application in education. Community colleges are a microcosm of the world, often reflecting as much cultural diversity as international business settings, particularly in some states such as California.

While the study of cultural competence is not new to higher education (King & Baxter Magolda, 2005), CQ has not been widely applied to educational settings (Naughton, 2010; Goh, 2012), and its application to the community college context is nonexistent. Even though the application of CQ to higher education is limited, the basic tenets of the theory are relevant to the diverse setting of community colleges. Applying CQ to higher education expands our understanding of cultural competence and provides a way to conceptualize cultural competence for educators that goes beyond the unchallenged three-factor competence model of knowledge, motivation, and skills.

Components of CQ

Established models of cultural competence focus on three components: knowledge, motivation, and skills (Spitzberg, 1988). The CQ model consists of four components: metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. Metacognitive CQ, also known as strategy, refers to an individual's ability to be mindful during interactions with individuals who are culturally different (Ang et al., 2006, Livermore, 2011). Cognitive CQ, also known as knowledge, emphasizes an understanding of cultural differences and similarities (Livermore, 2011). Motivational CQ, also known as drive, demonstrates an individual's willingness to persevere in adapting to a diverse

cultural setting. With motivational CQ individuals can effectively manage uncertainty and culturally ambiguous situations. Behavioral CQ, also known as action, emphasizes the ability of an individual to act appropriately and flexibly, using both verbal and nonverbal channels to adapt to the needs of the situation (Ang et al., 2006). The four components of CQ provide a concrete representation of the skills that both students and faculty need to succeed in the 21st century.

CQ for faculty is necessary not only to educate diverse populations but also to promote culturally competent graduates and to help diverse student populations succeed. As society becomes more diverse, the challenge of meeting the needs of all students puts increasing pressure on colleges and faculty. In addition, increased interactions with people from different cultural backgrounds can create opportunities for these differences to create conflict (Kaushal & Kwantes, 2006; Reyes Ramirez, 2010).

The changes in student and faculty populations suggest that the opportunity for culturally based conflicts is increasing. Therefore, it is important to understand CQ and conflict management from within the context of the community college system. If colleges are tasked with producing culturally intelligence intelligent college graduates, we must first understand to what degree community college faculty have CQ.

Problem Statement

The fundamental problem addressed by this study is that faculty report being unprepared to engage culturally diverse student populations. This problem

negatively impacts students by increasing faculty–student conflicts and contributing to the student achievement gap. Learning more about the relationship between CQ and conflict management styles could help pave the way for improved hiring practices and staff development and for better instruction and increased student engagement and success.

Despite the AACC's (2006) commitment to diversity, equity, and inclusiveness for all students, there exists a significant achievement gap between ethnic groups (Moore & Shulock, 2010). According to the California Community College Student Success Task Force (California Community Colleges Chancellor's Office, 2013), overall student success rates are low, with only 53.6% of students earning a certificate or degree. However, the rate is much lower for African American (42%) and Latino (43%) students. Although student populations have become increasingly diverse, faculty populations do not match the diversity of the students they serve. When cultures of faculty members and students do not align, the disparity creates an environment in which there is a greater risk for conflict (Pasque et al., 2013). Faculty members who lack CQ and effective conflict management skills may unwittingly create barriers for students, contributing to the risk of student failure. Both students and faculty identify with their cultures to varying degrees. Nonetheless, faculty members' responsiveness to students' diverse backgrounds may help promote student success. Faculty members are often not provided with the educational background, preparation, or ongoing training necessary to respond to the needs of diverse student populations (Maruyama et al., 2000).

Several scholars have questioned faculty members' ability to work with diverse student populations (Barmeyer, 2004; Bodycott & Walker, 2000; Cushner & Mahon, 2002; De Beuckelaer, Lievens, & Bucker, 2012; Duckworth, Levy, & Levy, 2005; Halse & Baumgart, 2000; Korhonen, 2002; Schuerholz-Lehr, 2007; Straffon, 2003; Teekens, 2003; Westrick & Yuen, 2007). Research examining the cultural competence of higher education faculty is limited (De Beuckelaer et al., 2012; Helms, 2004; Khistan, 1990). Additional research has examined the link between diversity in higher education classrooms and faculty conflict behaviors (Pasque et al., 2013). Furthermore, scholars have established a relationship between certain types of cultural competence and the ability to management conflict effectively (Ting-Toomey & Oetzel, 2001). However, no empirical research has linked CQ and conflict management styles in the context of community colleges. If faculty members lack CQ, students of cultures different from that of the faculty may suffer. The lack of CQ combined with potentially unproductive conflict management styles may exacerbate cultural misunderstanding, tumultuous teacher–student relationships, and the recurrence of conflict in the classroom. Researchers must understand if faculty members in community colleges have the CQ and conflict negotiation skills necessary to (a) help close the student achievement gap, (b) help promote pluralistic skills in students, (c) advance culturally intelligent students with the ability to navigate the global workforce, and (d) promote culturally intelligent leadership on community college campuses.

As the demographics of student populations continue to change there exists an increasing demand for faculty members with the CQ to engage students. The demographic composition of full-time faculty is relatively stagnant in contrast with the rapidly changing nature of the student body. Once faculty gain tenure they rarely leave the organization before retirement, and while communities have evolved over time, the faculty composition has not. While most institutions of higher education remain committed to hiring diverse faculty, there is still a gap between faculty and student populations. Furthermore, hiring diverse faculty does not guarantee that they have the CQ and conflict management skills to relate to diverse student populations.

Purpose of the Research

The purpose of this study was to understand the degree to which community college faculty members possess CQ and how CQ predicts conflict management styles for faculty in community colleges. Drawing from a sample of full-time community college faculty, this study used the 20-item CQ Scale that measures the four components of CQ, including motivational CQ, behavioral CQ, metacognitive CQ, and cognitive CQ (Ng et al., 2012). The study uses Rahim's (1983) Organizational Conflict Inventory (ROCI-II) to assess five conflict management styles: dominating, integrating, compromising, avoiding, and obliging. In light of the significance of using CQ and effective conflict management strategies to deal with conflict in diverse cultural settings, this study builds on previous literature to examine the degree to which faculty in community

colleges possess CQ and the degree to which each of the four components of CQ predicts faculty conflict management styles.

Research Questions

To address the purpose of this study, the following research questions were proposed:

1. What demographic characteristics predict increased levels of cultural intelligence in full-time community college faculty?
2. What demographic characteristics predict the five conflict management styles in full-time community college faculty?
3. How do the four factors of cultural intelligence predict faculty members' preferred style of conflict management?

Significance of the Study

Community colleges are a microcosm of our diverse country. College student populations are dramatically changing. There are progressively more ethnically diverse student populations, increasing immigrant populations, and gradual increases in the number of international students. Research suggests that faculty who are attuned to the cultural nuances of student behavior may be more effective instructors and better able to resolve conflict (Diller & Moule, 2005; Gay, 2010; Mahon, 2009). Although scholars have long called for multicultural education and pluralistic approaches to meet the needs of complex student populations, these calls have often fallen short in terms of providing a meaningful way to measure the cultural competence of faculty (Langelier, 2006).

The CQ model provides a comprehensive means to measure faculty members' responses to cultural differences.

Faculty members with a high degree of CQ should be able to communicate more effectively with students and colleagues from diverse cultural backgrounds. This line of research has several important implications for higher education. First, this research will help to address a gap in the literature by determining to what degree community college faculty have CQ? Research has established that CQ is an important predictor of decision making, negotiating skills, leadership skills, and trust building (Ng et al., 2012), which are also important skills for faculty, both inside and outside of the classroom. Second, the findings could have implications for faculty and administrative hiring decisions. As previously established, cultural competence is considered an important criteria in the hiring process; however, screening processes often fall short in determining if faculty possess cultural competence. Furthermore, CQ could provide a valuable area of staff development for community college faculty.

This study is important because it furthers knowledge in the field of CQ. Although considered an important theory in business, military, and government settings, the construct has not been widely researched in education contexts. Therefore, this research will help to fill a gap in the literature and add to the existence of research that suggests CQ is a relevant construct in the rapidly globalizing world. The next section of the paper provides an overview of the assumptions of the study, the limitations, and the delimitations.

Scope of the Study

This section provides a summary of the scope of the study. First, this section addresses researcher assumptions. Second, this section provides an overview of the researchers imposed delimitations and the external limitations to the study.

Assumptions of the Study

The concepts of CQ and conflict styles examined in this study have been studied in depth in other fields and contexts, and so major assumptions of this study include that (a) CQ has explanatory power in the community college context and (b) faculty must deal with conflict on a regular basis. Furthermore, based on previous research, I assumed that both CQ and conflict styles can be effectively measured. However, I did not assume that all participants were aware of their own CQ and conflict management styles. I also assumed that the participants in this study would answer questions honestly and to the best of their ability.

Study Delimitations

Due to the large number of potential participants in the study population, the sample involved in the current study focused only on full-time community college faculty working in schools in Southern California. Furthermore, the faculty population has been limited to colleges that have diverse student populations in order to capture the unique dynamics of faculty–student interactions in culturally diverse settings. While there are many different measures of cultural competence, this study focused on CQ in order to expand on previous research

by applying a more comprehensive, theory-based model to examine faculty–student interactions in community colleges.

Study Limitations

As with most research studies, this dissertation has inherent limitations. This study focused on community college faculty in Southern California. Because of the sample used for this study, the results may not be generalizable to community colleges in the rest of the state or nation. A second limitation of this study was that it used a correlational research design in attempting to establish if there is a relationship between CQ and conflict styles. However, it is difficult to determine directionality with correlational research. Third, since this study examined community college faculty within the United States, the results may not be generalizable to other contexts.

Definitions of Key Terms

This section provides definitions for terms used in the dissertation.

Conflict. Conflict "is an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce resources, and interference from others in achieving their goals" (Wilmont & Hocker, 2001, p. 41).

Conflict management. Conflict management is the process of "designing effective strategies to minimize the dysfunctions of conflict and maximize the constructive functions of conflict in order to enhance learning and effectiveness in an organization" (Rahim, 2000, p. 5).

Cultural competence: This term refers to "the ability to successfully teach students who come from cultures other than our own. It entails developing certain personal and interpersonal awareness and sensitivities, developing certain bodies of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural teaching" (Diller & Moule, 2005, p. 2).

Cultural intelligence (CQ). CQ is "an individual's capability to function and manage effectively in culturally diverse settings" (Ng et al., 2012, p. 32). CQ refers to cultural quotient; the use of Q is in line with other intelligence theories, such as IQ and EQ.

Culture. Culture is defined as "a learned meaning system that consists of patterns of traditions, beliefs, values, norms, meanings, and symbols that are passed on from one generation to the next and are shared to varying degrees by interacting members of a community" (Ting-Toomey & Chung, 2005, p. 28).

Intercultural communication competence. Intercultural communication competence is "impression management that allows members of different cultural systems to be aware of their cultural identity and cultural differences, and to interact effectively and appropriately with each other in diverse contexts by agreeing on the meaning of diverse symbol systems with the results of mutually satisfying relationships" (Kupka, 2008, p. 16).

Organization of the Dissertation

Chapter 1 presented the background of the problem, problem statement, purpose of the research, the research questions, the significance of the study, and the assumptions of the study, including the limitations and delimitations, and

the definitions of key terms. Chapter 2 provides an in-depth overview of literature and research related to CQ and the conflict styles of community college faculty. Chapter 2 also addresses the lack of research on CQ and faculty in higher education. Furthermore, this chapter explores gaps in the literature by examining the relationship between CQ and conflict style preferences of faculty member. Chapter 3 describes the research design, research methods, data collection and data analysis. Chapter 4 presents the results of the study. Chapter 5 presents the discussion and interpretation of the findings and recommendations for future research, policy.

CHAPTER 2

REVIEW OF THE LITERATURE

Many of the nation's community colleges are experiencing an increasing cultural divide as educators strive to interact with colleagues and engage students from cultures other than their own. Changes in the cultural makeup of community college faculty members and students may create opportunities for conflict (Mahon, 2009; Runde & Flanagan, 2010). Furthermore, at a time when community college student populations are more diverse than ever (AACC, 2013), higher education is being called on to develop graduates prepared to enter the global workforce (AACU, 2008; Prinster, 2014). However, less than 10% of college graduates have the knowledge or experience to be globally prepared (Clifford, 2004). If higher education is to meet the objectives presented by the AACU, community college faculty need skills beyond their field of study; faculty must be flexible and able to adapt to the changing cultural makeup of our student population. The CQ model provides a theory-backed tool to assess "an individual's capability to function and manage effectively in culturally diverse settings. . . . [CQ is] a specific form of intelligence focused on capabilities to grasp, reason, and behave effectively in situations characterized by cultural diversity" (Ang et al., 2007, p. 337). Gaps in the research warrant examining CQ and conflict within the context of higher education. The purpose of this study is

to understand the degree to which community college faculty members possess CQ and how CQ affects preferred conflict management styles.

Through a review of the literature, this chapter provides the rationale for exploring the relationship between community college faculty CQ and conflict management styles. First, this chapter offers a historical and theoretical background for examining CQ from an intelligence theory framework. Second, this chapter provides an in-depth explanation of CQ, including the four components of CQ, factors that contribute to high CQ, and performance outcomes of CQ. Third, this chapter examines research on conflict management and establishes links to the theory of CQ.

Historical and Theoretical Foundation

The role of culture in higher education has a rich historical and theoretical foundation. First, this section provides an overview of the concept of culture. Second, this section provides an overview of the historical and theoretical foundation for intelligence theory, with particular emphasis on the relationship to the development of CQ.

Culture

The term "culture" is Latin in origins, with its roots tracing back to the Roman orator Cicero (106 B.C.E. – 43 B.C.E.), who referred to *cultura animi* (cultivation of the soul). Culture is a fundamental concept in various academic disciplines and definitions of the word number in the hundreds (Kroeber & Kluckhohn, 1952). Kroeber and Kluckhohn suggest that there are six broad categories of definitions of culture, including descriptive, historical, normative,

psychological, structural, and genetic. For the purpose of this study, culture is defined as "a learned meaning system that consists of patterns of traditions, beliefs, values, norms, meanings, and symbols that are passed on from one generation to the next and are shared to varying degrees by interacting members of a community" (Ting-Toomey & Chung, 2012, p. 16). The term *culture* describes a variety of phenomena, including the characteristics of a culture, historical group traditions, rules and norms of a group, how groups learn and solve problems, and elements of organizational systems (Berry, Poortinga, Segall, & Dasen, 1992).

Following the identification of culture, academic disciplines began to forge research into cross-cultural and intercultural behavior. Cross-cultural studies focus on the "relationship between cultural context and human behavior" (Berry, Poortinga, Breugelmans, Chasiotis, & Sam, 2011, p. 3). Conversely, the term *intercultural* refers to interactions between individuals from different cultural groups (Ting-Toomey & Chung, 2012). The term intercultural originated in the 1600s with the Moravian educator John Amos Comenius, who proposed universal knowledge, based on multiple perspectives, to promote understanding among people from different backgrounds (Cushner & Mahon, 2009; Piaget, 1957). Piaget (1957) proclaimed Comenius "the apostle of international collaboration in education itself" (p. 2) and explained, "Education, according to Comenius, was not merely the training of the child at school or in the home; it is a process affecting man's whole life and the countless social adjustments he must make" (p. 2). Comenius's ideas provide a basis for theories, such as social

constructivism, that emphasize that an individual's cultural history, language, and social context play a significant role in how people learn (Vygotsky, 1978). This approach is of particular relevance to this study, which supports the fundamental assumption that an understanding of culture is of paramount importance to student success (Gay, 2010). Educational philosophers justify the role of culture in education, while contemporary scholars acknowledge the benefits of exploring intercultural relationships.

The study of culture and relationships has several broad societal benefits, as well as specific benefits to education. Ting-Toomey and Chung (2012) identify eight practical reasons for the study of intercultural communication:

> increased global workplace heterogeneity, increased domestic workforce diversity, engage in creative problem solving, comprehending the roles of technology in global communication, facilitating better multicultural health care communication, enhancing intercultural relationship satisfaction, fostering global and intrapersonal peace, and deepening cultural self-awareness and other-awareness. (p. 5)

The study of culture has broad application, but an understanding of culture and diversity has particular significance to education, where increased student diversity necessitates an increase in skills to engage students. With increased diversity on college campuses, the classroom setting comprises many different cultural backgrounds. Although students vary in the degree to which they identify with their culture, faculty responsiveness to students' diverse cultural backgrounds may help translate knowledge into effective instruction (NEA,

2012). Cultures can vary in terms of their beliefs, values, norms, and traditions, and these variations have implications for practitioners in higher education. Two significant broad value patterns include individualism–collectivism and power distance (Hofstede, 1980).

Individualism and collectivism. Individualism and collectivism refer to how individuals within a culture relate to one another. Individualistic cultures tend to prefer pursuit of individual goals, self-actualization, and individual self-determination (Hofstede, 1980; Hui, 1988; Kashima et al., 1995; Triandis, 1995). Alternatively, collectivist cultures tend to emphasize group goals over individual goals, and interdependent self-construal. In individualistic settings, students are expected to speak up, individual innovation is encouraged, and students are encouraged to pursue their individual interests (Hofstede, 2001). In collectivistic cultures, students participate when sanctioned by their in-group, students pursue interests associated to their in-groups, and individual ideas are discouraged. Research on college students has revealed that different ethnic groups within the United States associate to different degrees with individualism and collectivism (Coon & Kemmelmeier, 2001). These different cultural orientations have implications for higher education because dimensions of individualism and collectivism relate to behaviors that support academic achievement (Von Dras, 2005). As Von Dras (2005) argues, "Professors need to be aware of the unique orientations students bring to the classroom, and strive to create learning environments both in and outside the classroom where individualists and collectivists have equal opportunities for scholastic success" (p. 4).

Power distance. Power distance is a second important cultural orientation that has implications for higher education. Power distance is the degree to which less powerful members of a culture expect that power is distributed unequally in society (Hofstede, 1980). More specifically, power distance refers to how individuals in a hierarchical society respond to others based on their position of power or their lack of position of power and status. Within educational settings, power distance influences instructor–student interactions (Hofstede, 2001). In high power distance cultures, students depend on teachers to transfer knowledge and initiate communication, and students treat teachers with respect. In low power distance cultures, students and teachers treat each other as equals, and students can initiate communication with the teacher (Hofstede, 2001). Scholars have identified power distance as an important cultural value that influences student learning (Selinger, 2004; Zheng, 2013). To illustrate, Zheng (2013) found that college students with high power distance orientations tended to avoid seeking out instructors when they had questions about assignments or course materials.

The concept of culture is widely studied across disciplines. Understanding culture can help provide insight into the increasingly diverse educational landscape. The next section provides an overview of the history and theoretical foundation of intelligence theories, and how these theories, combined with culture, helped to introduce the theory of CQ.

Intelligence Theories

Explorations of human intelligence go back thousands of years, with references to intelligence found in the philosophical works of Confucius, the ancient Greeks, and early modern philosophers (Ames & Rosemont, 1999; Demetriou & Papadopoulos, 2004). The most dramatic leap in the study of intelligence occurred in field of psychology in the late 1800s and created an environment that promoted a scientific evaluation of intelligence and the development of intelligence tests in the 20th century (Irvine & Berry, 2010). These traditional studies of intelligence have evolved into three broad categories of contemporary intelligence theories: The first category presents the theoretical basis for intelligence testing; the second category focuses on cognition and neuroscience; the third category emphasizes additional abilities not captured by traditional approaches (Kaufman, Kaufman, & Plucker, 2013). This next section provides an overview of traditional intelligence testing and the multiple-abilities approach to intelligence.

Intelligence quotient. The first broad category of intelligence theories focuses on intelligence testing and intelligence quotient or IQ. Intelligence researchers noted that individuals who performed well on one intelligence assessment usually performed well on several different intelligence assessments. Early prominent scholars argued that there is one common process known as general intelligence or *g* (Binet, 1911; Spearman, 1927). The initial aim of intelligence testing was measurement of intelligence rather than the development of theory (Mackintosh, 2011). If there is any consensus regarding

this approach to intelligence, scholars agree that intelligence tests are good predictors of academic abilities in academic settings. Intelligence testing has been widely used for academic, professional, and military placement.

Intelligence testing, launched in the early 20th century, closely relates to some of the most serious controversies regarding intelligence. As Murdoch (2007) stressed, "IQ tests have often been used for the vilest purposes, no matter that many of their originators had lofty social goals in mind" (p. 231). Mackintosh (2011) provided a thorough review of the abuse and misuse of IQ tests, including to curb feeble-mindedness, control immigration, argue for the decline of national intelligence, and justify legalizing discrimination. For example, researchers used IQ tests to screen immigrants as they arrived at Ellis Island in the United States. Based on test results, researchers made erroneous generalizations about different ethnic groups, which resulted in intelligence specialists asking Congress to endorse immigration restrictions (Kamin, 1995).

Atrocities aside, scholars have questioned interpretations of intelligence based on test scores, and instead they have called for examining intelligence from the perspective of different content dimensions, such as social intelligence, emotional intelligence, and practical intelligence (Ng et al., 2012). In other words, intelligence theories have the ability to go beyond explaining why some people succeed in academic settings to providing an understanding of why some people succeed in different settings outside the context of education.

Scholars have argued that there are several limitations to IQ testing, most notably that intelligence is defined too narrowly by IQ tests. Sternberg (1985)

stressed that traditional IQ tests fail to account for practical intelligence, or what some might call "street smarts." Gardner (1983) argued that, rather than measuring intelligence by test scores, real intelligence should be measured by accomplishments. As Gardner stressed, intelligence tests actually measure an individual's ability to provide the correct answer in an artificial setting and not real-world application of intelligence.

Numerous scholars have dissected the strengths and weaknesses of intelligence testing (Gardner, 1983; Kaufman et al., 2013; Mackintosh, 2011; Sternberg, 1985), establishing a gateway for the emergence of abilities-based theories of intelligence. It is important to note here that although this study is not examining traditional intelligence theories, the history and controversies surrounding these theories provide the framework for understanding the introduction of abilities-based approaches to intelligence.

Sternberg's model of intelligence. Sternberg's (1985) model of intelligence was one of the first to separate intelligence from traditional test-based conceptualizations of IQ. Sternberg envisioned human intelligence as a "*mental* activity directed toward purposive *adaptation* to, *selection* and shaping of, real-world environments relevant to one's life" (Sternberg, 1985, p. 45). One of the factors that motivated Sternberg's model was research in the field that began to identify different cultural views of intelligence. As Cole, Gay, Glick, and Sharp (1971) observed, "Behavior that in one cultural context is smart may be, in another cultural context, stupid" (Sternberg, 2004b, p. 325). In order to develop a model that helped to address variations in cultural assumptions about

intelligence, Sternberg proposed the triarchic theory of intelligence based on three elements: metacomponents, performance components, and knowledge-acquisition components (Sternberg, 1985). Metacomponents refer to the cognitive processes used for decision making and problem solving. Performance components refer to the ability to carry out the necessary behaviors dictated by the metacomponent. The knowledge acquisition component refers to the process of gathering information. Sternberg's conceptualization of intelligence established the foundation for major innovation in intelligence theory, such as Gardner's (1983) theory of multiple intelligence, emotional intelligence (Salovey & Mayer, 1990), and CQ (Earley & Ang, 2003).

Gardner's theory of multiple intelligence. Building on Sternberg's model of intelligence, Gardner (1983) introduced one of the most significant shifts in the conceptualization of intelligence with the theory of multiple intelligence. Gardner defined intelligence as "an ability or set of abilities that permit an individual to solve problems or fashion products that are of consequence in a particular cultural setting" (Ramos-Ford & Gardner, 1997, p. 55). Gardner argued that our culture has defined intelligence too narrowly, and thus he initially advanced the idea of seven different types of intelligence, which he later developed into eight: verbal/linguistic intelligence, logical/mathematical intelligence, visual/spatial intelligence, bodily/kinesthetic intelligence, musical/rhythmic intelligence, interpersonal intelligence, intrapersonal intelligence, naturalistic intelligence, and existential intelligence. Gardner (1983) stressed,

> There is persuasive evidence for the existence of several relatively autonomous human intellectual competencies, abbreviated hereafter as human intelligences. These are frames of mind. There exists at least some intelligences that are relatively independent of one another, and that they can be fashioned and combined in a multiplicity of adaptive ways by individuals and cultures seems to be increasingly difficult to deny. (p. 9)

Intelligence scholars consider multiple-intelligence theory to be an important contribution to the field of intelligence (Sternberg, 1999), as it offers an effective way to conceptualize intelligence beyond the traditional form of general intelligence as measured by IQ tests. Multiple intelligence represents not just a theory of intelligence but also "a philosophy of education or an attitude toward learning (Armstrong, 1994), in the spirit of John Dewey's ideas (1916, 1938) on progressive education" (Stanford, 2003, p. 81).

Gardner's theory of multiple intelligence is not without its limitations. First, scholars such as Sternberg (2004a) argue that what Gardner considers multiple forms of intelligence are really abilities or talents. Gardner responds by suggesting that classification of multiple types of intelligence as talents is appropriate as long as traditional forms such as linguistic and mathematical abilities classify as talents as well. A second limitation of multiple intelligence is that the underlying assumptions of the theory make it difficult for researchers to attempt to validate the theory.

> A difficulty with the measurement of the eight hypothesized intelligence domains is Gardner's (1999) argument that assessments should reflect an

> individual's success in completing culturally valued tasks, rather than in completing intelligence tests. . . . However, Gardner has not explained how each of these three abilities could be assessed independently by such a test. (Visser, Ashton, & Vernon, 2006, p. 489)

Several scholars have attempted to validate multiple intelligence with mixed results (Visser et al., 2006). Nonetheless, Gardner's theory of multiple intelligence has provided several important contributions to the understanding of intelligence. Gardner (1983) challenged traditional models of intelligence by arguing that education places too much emphasis on linguistic and mathematical intelligence. Furthermore, multiple intelligence provided the framework for other scholars to introduce additional types of intelligence, such as emotional intelligence and CQ.

Emotional intelligence. One of the most influential theories to emerge from the abilities-based intelligence arena is emotional intelligence. Salovey and Mayer (1990) introduced emotional intelligence, a theory later made popular by Goleman (1995). Emotional intelligence broadly refers to an individual's ability to know their emotions in the moment and to use their emotions to make wise life decisions (Goleman, 1995).

Mayer, Salovey, and Caruso (2008) have presented a four-branch model of emotional intelligence. The four abilities presented in the model include the ability to "(a) perceive emotions in oneself and others accurately; (b) use emotions to facilitate thinking; (c) understand emotions, emotional language, and the signals conveyed by emotions; and (d) manage emotions so as to attain

specific goals" (p. 560). Emotional intelligence has been shown to positively correlate with verbal intelligence, the big five personality dimensions (openness, conscientiousness, extraversion, agreeableness, and neuroticism), social competence, interpersonal sensitivity, work relationships, drug use, and aggressiveness (Kaufman et al., 2013). Scholars suggest that emotional intelligence is similar to Gardner's intrapersonal intelligence (Mackintosh, 2011).

As with other theories of intelligence, there are numerous criticisms of emotional intelligence. Locke (2005), in a thorough philosophical critique of emotional intelligence, argues that the theory represents an invalid concept. Locke stresses that emotional intelligence is not a form of intelligence, rather it represents a learned skill, He also argues that the concept is so broad as to lack meaning and that the concept has been defined in several different ways and lacks consistency. Other scholars have criticized emotional intelligence for the lack of a valid assessment tool (Brody, 2004) and for the failure to adequately conceptualize when something should be labeled emotional intelligence or not (Locke, 2005).

Sternberg's triarchic model of intelligence (1985), Gardner's multiple intelligence (1997), and Salovey and Mayer's (1990) emotional intelligence share a common foundation in that each theory has made significant contributions to the understanding of intelligence. Each perspective stresses that additional abilities be treated with the same importance as standard abilities measured by traditional IQ tests. Each approach stresses that traditional intelligence tests are too limited in scope (Kaufman et al., 2013). Nonetheless, these theories all

share a common limitation in that these conceptualizations of intelligence are not cross-cultural in nature (Ng et al., 2012). Van Dyne, Ang, and Koh (2008) have argued that a serious gap in the literature on intelligence theory exists because these theories are incomplete in their ability to acknowledge that what is effective or intelligent in one culture may be unintelligent in another culture. Nonetheless, it is important to have an understanding of intelligence theories because they serve as the foundation for models of cultural competence favored by the field of education (Lonner & Hayes, 2004).

Cultural intelligence. Earley and Ang (2003) introduced CQ as a way to explain "an individual's capability to function and manage effectively in culturally diverse settings" (Ng et al., 2012, p. 32). The construct of CQ shares a common foundation with intelligence theories such as multiple intelligence and emotional intelligence, which are integral parts of culture-based competence theories. Lonner and Hayes (2004) argue that intercultural competence comprises elements of emotional, contextual, and interpersonal intelligence. Fields such as anthropology, communication, and education have integrated intelligence theories to develop a model of cultural competence that is based on knowledge, motivation, and skills. Although models of intelligence form the basis for cultural competence, scholars argue that existing models lack a theoretical foundation (Van Dyne et al., 2008). In order to address a gap in research on intelligence and cultural competence, CQ scholars have expanded the traditional tripartite view of cultural competence by grounding CQ in Sternberg's triarchic theory of intelligence. As Naughton (2010) observed, "Sternberg's theories and studies on

both intellectual development and the importance of culture on developing intelligence are extremely important to the developing concept and understanding of CQ as a whole" (p. 4). Sternberg synthesized numerous intelligence perspectives in order to develop a framework for individual-level intelligence. Bridging on Sternberg's model, Ang and Van Dyne (2008) explain that there are four ways to think of intelligence:

> (a) Metacognitive intelligence is knowledge and control of cognition (the processes individuals use to acquire and understand knowledge); (b) cognitive intelligence is individual knowledge and knowledge structures; (c) motivational intelligence acknowledges that most cognition is motivated and thus it focuses on magnitude and direction of energy as a locus of intelligence; and (d) behavioral intelligence focuses on individual capabilities at the action level (behavior). (p. 4)

Grounding CQ in intelligence theory "offers a novel and elegant theoretical framework for thinking about intercultural competences" (Ng et al., 2012, p. 31).

Although CQ shares basic tenets of intelligence theories, the assumptions about CQ separate it from traditional theories of intelligence. Ang and Van Dyne (2008) stress that "CQ is malleable and can be enhanced through experience, education, and training; it is a statelike individual difference" (p. 8).

This section provided an overview of the historical and theoretical foundation of intelligence theories. Specifically, the section reviewed traditional theories of intelligence. Second, this section discussed prominent contemporary theories of intelligence, including Sternberg's model of intelligence, multiple

intelligence and emotional intelligence. Third, this section introduced CQ as a new model of cultural competence. The next section of this chapter provides a review of scholarly research as it relates to CQ and conflict management and presents the implications for higher education.

Review of the Scholarly Empirical Literature

Understanding CQ may help to provide insight into the increasingly diverse community college population. To provide a foundation for examining community college faculty member's levels of CQ and conflict management preferences, this next section reviews related scholarly empirical literature. First, this section provides an overview of cultural competence. Second, this section contains a comprehensive review of CQ, including the foundation of the theory, the four components of CQ, the antecedents of CQ, and behavioral and performance outcomes of CQ. Third, this section provides an overview of conflict, including a discussion of conflict sources, and conflict management.

Cultural Competence

Several scholars call for faculty members with cultural competence to effectively engage culturally diverse students (Barmeyer, 2004; Bodycott & Walker, 2000; Cushner & Mahon, 2009; De Beuckelaer et al., 2012; Duckworth et al., 2005; Halse & Baumgart, 2000; Schuerholz-Lehr, 2007; Straffon, 2003; Teekens, 2003; Westrick & Yuen, 2007). For the purpose of this review, competence is the "process of managing interaction in ways that are likely to produce more appropriate and effective individual, relational, group, or

institutional outcomes" (Spitzberg & Changnon, 2009, p. 6). Diller and Moule (2005) define cultural competence for educators as

> the ability to successfully teach students who come from cultures other than our own. Cultural competence entails developing certain personal and interpersonal awareness and sensitivities, developing certain bodies of cultural knowledge, and mastering a set of skills that, taken together, underlie effective cross-cultural teaching. (p. 2)

Thus, competence scholars argue that this area of research is of value to education because faculty members with high levels of cultural competence "operate simultaneously and effectively with students from multiple cultures" (De Beuckelaer et al., 2012; Korhonen, 2002, p. 32).

There are a plethora of terms and models to explain cultural competence (Cusher & Mahon, 2009). Terms used to describe culture in education include multicultural education (Banks & Banks, 2004), intercultural competence (Spitzberg & Changnon, 2009), culturally responsive education (Gay, 2010), culturally sensitive teaching (Prieto, 2012) pluralistic education (Engberg & Hurtado, 2011), and CQ (Earley et al., 2006). Goh (2012) suggests that many of these terms are interchangeable. Just as there are multiple terms used to describe cultural competence, there are also no generally agreed upon models for assessment and training (Spitzberg, & Changnon, 2009). Part of the challenge is the lack of validated measurements that apply to cultural competence for instruction of culturally diverse student populations (Ocampo et al., 2003; Prieto, 2012). Furthermore, some scholars argue that the traditional

conceptualization of cultural competence favored by the education field is limited in addressing the needs of our diverse student population in that traditional approaches fail to account for additional factors that may affect instructors' ability to work with students from different cultural backgrounds, such as problem-solving and strategic planning (Goh, 2012; Paige, 2004).

As a theory of cultural competence, CQ (Ang et al., 2006) may help to explain and operationalize the skills needed by educators to work with culturally diverse individuals. The CQ model expands on traditional models of cultural competence by integrating intelligence theory, which in turn can provide useful understanding and training tools for educators. Although cultural competence has a strong foundation in fields such as education (Moule, 2012), communication studies (Spitzberg, 1988), and counseling and psychology (Goh et al., 2008), there exists disagreement among scholars about the best way to conceptualize and measure cultural competence (Cushner & Mahon, 2009; Paige, 2004; Prieto, 2012). As a new theory, CQ has the potential to synthesize multidisciplinary research efforts on cultural competence and provide a reliable way to assess faculty cultural competency. The application of CQ to education in the research literature is extremely limited (Goh, 2012; Naughton, 2010), and application to the college context is virtually nonexistent. This is largely because it is a new theory that was first proposed in 2004. Even though the application of CQ to higher education is lacking in practice, the basic tenets of the theory are relevant to the diverse setting of community colleges. Applying CQ to higher education expands our understanding of cultural competence and provides a way

to conceptualize cultural competence for educators beyond the unchallenged three-factor competence model of knowledge, motivation, and skills.

Cultural Intelligence

Earley and Ang (2003) introduced CQ as a means to explain why some people are better able to navigate cultural diverse situations. This section provides an overview of CQ and briefly explains the basis for the theory.

Cultural intelligence is "defined as an individual's capability to function and manage effectively in culturally diverse settings" (Ng et al., 2012, p. 32). Reyes-Ramirez (2010) identified several significant cross-cultural research studies that provide the foundation for the development of CQ, including (a) House's GLOBE study, which examined leadership, culture, and organizations (House, Hanges, Javidan, Dorman, & Gupta, 2004); (b) the World Values Survey (Inglehart, Basáñez, & Moreno, 1998; and (c) Schwartz's Survey of Values, which examined student and instructor values in over 50 countries (Schwartz & Bardi, 2001). Collectively, these studies contributed to the creation of CQ.

Cultural intelligence scholars were the first to conceptualize cultural competence as a form of intelligence, in the same vein as emotional intelligence and multiple intelligences. In the field of cross-cultural competence, scholars describe CQ as "the new kid on the scientific block" (Gelfand, et al., 2008, p. 376), and CQ rapidly gained acceptance in academic circles because it integrated research from a variety of disciplines, including communication studies, education, psychology, and sociology (Gelfand et al., 2008). Even though CQ has not been widely used in the context of higher education

(Naughton, 2010), the basic tenets of the theory are relevant to the diverse setting of education (Petrović, 2011).

Four Factors of Cultural Intelligence. CQ consists of four main components: metacognition, cognition, motivation, and behavior (Earley et al., 2006). These four components are separate and unique, and together combine to form CQ as a whole. The next sections provide an overview of each of the four parts of CQ.

Metacognition. Metacognition involves cultural awareness, strategic planning, and checking (Earley et al., 2006). Planning refers to "strategizing before a culturally diverse encounter" (Van Dyne et al., 2012, p. 299). Awareness refers to an individual's mindfulness of how culture shapes their own behavior as well as the behavior of people from culturally different backgrounds. Checking is the process of "comparing expectations and actual occurrences during inter-cultural interactions" (Van Dyne et al., 2012, p. 299). In an instructional sense, metacognitive CQ refers to an instructor's cultural awareness and planning for encounters with culturally diverse colleagues and students when pertaining to issues of curriculum development, class planning, conflict negotiation, decision making and problem solving. To illustrate, consider Traci, a Japanese-American counselor at a community college serving a large Hispanic student population. Traci strategizes how she can best serve her student clientele by developing services directly related to the academic, career, and personal needs of Hispanic students. She at times questions if her students would be better served by a bilingual counselor, but she also challenges her

assumptions about the language skills of her students. As in this example, an individual with metacognitive CQ displays the ability to be mindful during interactions with individuals who are culturally different (Ang et al., 2006).

Cognition. Cognition refers to developing both a culture-specific and culture-general knowledge of the system (Earley et al., 2006). Culture-specific knowledge is information about a particular culture (i.e.: Germans give firm handshakes), whereas culture-general knowledge refers to an understanding of broad cultural patterns, such as individualism/collectivism and power distance (Hofstede, 2001; House et al., 2004). When applied to faculty and instruction, cognitive CQ refers to a faculty member's level of knowledge about different student cultures, including factors such as beliefs, values, rules, norms, and traditions. To illustrate, consider this example by Dresser (2005):

> Mrs. Litt and Ms. Gollin compare notes in the faculty lounge. Mrs. Litt has new students from Ethiopia. They are very bright and do good work, but are too quiet, she says. They never raise their hands to ask questions or volunteer answers. This frustrates her. . . . Mrs. Litt was unfamiliar with Ethiopian customs. From kindergarten on, children are taught the following proverb: "Speaking up is gold. Silence is diamonds." (p. 41)

In this example, the instructor lacked an understanding of her students' values. An instructor with cognitive CQ may have an understanding of why her students are quiet as well as the knowledge of multiple teaching strategies to enhance the learning experience for all students.

Motivation. Motivation refers to the desire and willingness to learn and adapt to new cultural systems (Earley et al., 2006). Motivation consists of three subdimensions: intrinsic interest, extrinsic interest, and self-efficacy to adjust. Intrinsic interest refers to finding personal satisfaction in culturally diverse interactions (Van Dyne et al., 2012). Extrinsic interest comes from recognizing that personal benefits can be derived from culturally diverse interactions (i.e., getting a promotion). Self-efficacy to adjust "includes a sense of confidence to interact with locals who have different cultural backgrounds and confidence to work in culturally diverse groups and settings" (Van Dyne et al., 2012, p. 304). When applied to faculty members, motivation CQ is the extent to which an instructor has the intrinsic drive to gain knowledge of, understand, and adapt to culturally diverse student populations. To illustrate, consider the story of Minadora, a community college instructor who arrived in the United States in 2001 from Romania and exemplifies the spirit of motivation.

> When I arrived in the United States I had to adjust to the new culture and learn English. As a community college and university student, I participated in educational performance troupes and the Speech and Debate Team, placing in the national championships. Today I work as a community college instructor. I am excited about working with the diverse student population in the community college system and when things get tough I try harder. I think my background makes me want to try even harder with students from different cultural identities. (M. Moldoveanu, personal communication, April 16, 2013)

Minadora's personal and educational experiences, as well as her outlook on teaching diverse students, reflect the core aspects of motivational CQ: intrinsic drive for knowledge, to adapt, and to understand.

Behavior. Behavior is the ability to recognize the skills that are appropriate and necessary to achieve desired goals. As Van Dyne, Ang, and Livermore (2010) astutely note, "One of the most important aspects of behavioral CQ is knowing when to adapt to another culture and when not to do so" (p. 137). Important components of behavioral CQ include appropriate verbal and nonverbal behaviors and speech acts. The behavioral component of CQ emerged from intercultural communication research (Gudykunst, Ting-Toomey, & Chua, 1988). Verbal behavior refers to the ability to flexibly adjust speech patterns such as rate of speech, volume, and inflection. Nonverbal behavior refers to the ability to communicate flexibly through facial expressions, gestures, eye contact, proximity, and greeting norms (Van Dyne et al., 2012). To illustrate the importance of appropriate verbal and nonverbal behaviors in educational settings, Dresser (2005) shares a cultural misunderstanding caused by nonverbal behavior:

> Caroline works in the administrative office of a community college. She informs students about how they have fared on the English as a Second Language Placement Test. . . . One day, Zitilla, a girl from Afghanistan, comes to inquire about the results of her exam. She has done very well, and Caroline wishes to communicate this to her, she gives her the thumbs-up gesture. When Zitilla sees this, she turns red and beads of

> sweat form on her forehead. She rushes out of the office without saying a word. In Zitilla's Afghan culture, the thumbs-up sign has the same sexual connotation as the American middle-finger gesture. (p. 19)

This story demonstrates that a lack of appropriate cultural behaviors can lead to ineffective outcomes.

Earley et al. (2006) stress that the four components of CQ are separate, yet interrelated, constructs. Furthermore, the authors' stress that CQ can be developed, learned through training, and reliably measured. The next section overviews the development of the CQ scale.

Cultural Intelligence Scale. Researchers studying CQ have used a systematic process to develop and validate the CQ Scale (CQS; Ang et al., 2007). This section provides an overview of the development of the CQS and of the studies conducted by researchers to measure the scales reliability and validity.

In order to develop a meaningful measurement of CQ (Ang et al., 2007), a team of researchers first conducted a thorough analysis of the literature on cultural competencies and intelligence scales, drawing from seminal research in multiple fields (Bandura, 2002; Deci & Ryan, 1985; Gudykunst et al., 1988; Murdock, 1987; O'Neil & Abedi, 1996; Triandis, 1994). Ang et al. (2007) conducted interviews with eight global executives to identify issues related to cross-cultural interactions. The research team initially created a 53-item survey, measuring each of the four dimensions of CQ. A team of faculty members and international executives with global experience examined the scale for clarity,

readability, and fidelity. Using this feedback, the research team reduced the scale to 10 items per dimension.

Once the team created the initial scale, they embarked on a five-study journey, narrowing the CQS from 40 to 20 items with "low item-total correlations, high residuals, and low factor loadings" (Ng, Van Dyne, & Ang, 2012, p. 25). Following the initial experiment, the researchers conducted four additional studies to assess and confirm the scale's four-factor structure, temporal stability, cultural equivalence, and validity of the scale with self and peer ratings. The researchers tested the CQS with different samples (students versus business executives) in different countries (such as the United States and Singapore) and from different perspectives (self vs. peer ratings). In a review of the research used to build the CQS, scholars note that the "studies have demonstrated that the 20-item CQS possesses good psychometric properties across samples, time, countries, and methods" (Ng et al., 2012, p. 25). The creation of a reliable assessment of CQ has led to several studies examining the factors that contribute to CQ and to CQ outcomes.

Factors that Contribute to Cultural Intelligence. Several studies identify factors that contribute to an individual possessing a high degree of CQ, such as the big five personality characteristics (Ang et al., 2006); international non-work-related experiences, such as travel (Tarique & Takeuchi, 2008); language skills; and international work experience (Shannon & Begley, 2008). The next section provides an overview of research related to factors that increase CQ and the relevance to the context of education.

Self-efficacy. Several scholars advocate the necessity of self-efficacy in the development of CQ (Earley & Ang, 2003; Earley & Peterson, 2004). This is relevant to education because scholars note that teachers who possess high levels of self-efficacy are more satisfied with their teaching and experience less emotional frustration (Cooper & Simonds, 2007; Samovar et al., 2013; Siwatu & Starker, 2010). Self-efficacy refers to the confidence in one's own ability to carry out the necessary course of action to manage different situations (Bandura, 1994). MacNab and Worthley (2012) tested the relationship between self-efficacy and CQ by collecting data from 370 trainers in cultural education programs over a 4-year period in both Australia and the United States. The researchers studied the impact of self-efficacy, management experience, international travel, age, gender, and education on the ability to learn CQ. Out of the five aforementioned factors, only self-efficacy had a positive effect on the ability of participants to learn CQ. The authors noted that CQ training can be challenging, and thus a certain degree of self-efficacy may be necessary to benefit from these training programs.

Individual differences. Shannon and Begley (2008) tested additional individual differences as predictors of CQ and used quantitative methods to compare self-reported CQ to peer-rated CQ. The sample in this study consisted of 1,333 business students representing 24 nationalities at a large university in Ireland. A subset 245 students conducted the peer-review study. The results revealed that speaking more than one language and international work experience predicted overall levels of self-reported CQ and that diversity of social

contacts predicted peer-rated CQ. The most important finding in this study was that it demonstrated a positive and significant relationship between overall self-rated CQ and peer-rated CQ, which suggests that self-report surveys using the CQS are a reliable way to measure CQ.

Franklin-Craft (2010) applied CQ to the context of higher education by exploring the level of CQ within university student affairs administrators. The researcher surveyed 465 student affairs practitioners with three web-based surveys including the CQS, the Multicultural Competence in Student Affairs-Preliminary 2 Scale (Pope & Mueller, 2000), and a researcher-developed Personal Data Form. Furthermore, 52 practitioners provided the contact information of peers and students who could further assess their cultural competence, leading to 188 participants completing observer assessments. Five variables contributed to higher levels of CQ accounting for 20% of the variance in CQ scores, including international travel or living, training and workshop attendance, work place interactions with culturally dissimilar people, and workplace conversations about diversity. In contrast with other research on the correlation between self- and peer-assessed CQ, the administrators self-assessed CQ was not related to peer evaluations of CQ (Shannon & Begley, 2008; Van Dyne et al., 2008).

Petrović (2011) extended this line of inquiry by examining the level of CQ of teachers and the variables that may predict CQ for teachers. This quantitative study surveyed elementary school teachers in Serbia using the CQS index and eight additional variables that may predict CQ. The results showed that the

educators had a high level of CQ and that the most important predictor of CQ was the enjoyment of intercultural communication. Other factors that served as moderate predictors of high CQ included the perception that teaching in a multicultural classroom is a challenge, teachers who believe they can learn a lot from students with different cultural backgrounds, and openness for intercultural learning. These findings are supported by previous research that found openness to experience relates to all four factors of CQ (Ang et al., 2006). This finding is significant to the context of higher education because scholars identify openness as an important component of faculty–student interaction. In a qualitative study of 400 college students, researchers found that openness was important to foster effective classroom relationships between faculty and students and student to student. (Anderson & Carta-Falsa, 2002).

One of the underlying assumptions of CQ is that individuals can learn and develop their skills through training. Ahn and Ettner (2013) surveyed graduate students enrolled in three graduate programs at universities in the United States to examine the role of CQ in MBA curriculum. The researchers used the CQS in combination with open-ended survey questions about student experiences. The findings of the study suggest that MBA students are aware of the importance of CQ in the global marketplace; however, individual students report lacking culture-specific knowledge. As with previous research, the findings indicate that international work experience, speaking more than one language, and studying abroad contribute to increasing CQ (Shannon & Begley, 2008).

Klein (2010) examined the impact of an undergraduate multicultural studies course on university students' level of CQ. The researcher used a mixed-methods approach consisting of the CQS to conduct pre- and post-tests and separate qualitative interviews. Twenty-two students in an undergraduate business psychology program at a U.S. university participated. The results of the study indicated that the majority of students in the study increased their level of CQ, and, in particular, a statistically significant number of students increased their motivational CQ. The author of this study suggested that effective instructors can create experiential learning situations that help promote students' CQ both in and out of the classroom setting. Previous research supports the finding that training in CQ can increase individual levels of CQ (Earley et al., 2006; MacNab, 2012). In addition to understanding factors that contribute to high CQ, researchers have also examined behavioral and performance outcomes of CQ. The next section reviews studies in these areas.

Behavior and Performance Outcomes of Cultural Intelligence. Several behavior and performance outcomes are associated with CQ, such as increased trust (Rockstuhl & Ng, 2008), effective conflict negotiation (Elkhouly & Gamaleldin, 2012; Reyes-Ramirez, 2010), leadership (Keung, 2011), and adaptability (Ward & Fischer, 2008). This section provides an overview of empirical research linking CQ to positive behavioral and performance outcomes, such as decision making, adaptation, task performance, effectiveness, trust, leadership, and conflict.

CQ and decision making, adaptation, and task performance. Ang et al., (2007) examined the relationship between CQ and decision making, adaptation, and task performance. The researchers conducted a two-part quantitative study using the CQS, triangulating results from students in the U.S. and Singapore and a group of international managers. The results showed that metacognitive CQ and cognitive CQ levels predicted judgment and decision-making; behavioral and motivational CQ predicted adaptation; and metacognitive CQ and behavioral CQ predicted task performance. In all, the research revealed that CQ was a better predictor of the aforementioned variables than age, gender, education, income, and international travel. An individual's ability to effectively make sound judgments and decisions, adapt to new settings, and perform tasks well is extremely important but can be complicated in cross-cultural settings.

Motivational CQ and effectiveness. Evaluations of individual effectiveness are often culturally based—individuals may receive poor performance evaluations from others if they have a different cultural background because they have different expectations about work and performance (Stone-Romero, Stone, & Salas, 2003). Chen, Liu, and Portnoy (2012) argue that motivational CQ is a significant component of the ability to be effective in cross-cultural settings, especially in relation to work-related tasks. As noted by Ang et al. (2007), high motivational CQ is reflected by "direct attention and energy toward cross-cultural situations based on intrinsic interest and confidence in their cross-cultural effectiveness" (p. 338). In order to examine these ideas in more detail, Chen et al. (2012) used the CQS to research the effects of motivational

CQ at the individual and organizational level in 26 real estate firms in the United States. After controlling for age, gender, ethnicity, and the number of languages spoken, the research revealed that motivational CQ was significantly and positively related to task performance. Of the 526 real estate agents participating in the study, those with the highest motivational CQ also had the highest level of cultural sales (in other words, sales to customers from different racial or ethnic groups). Furthermore, the study found that the higher the level of organizational CQ, the higher the level of individual motivational CQ as it relates to intercultural work tasks. Additional research supports a positive relationship between motivational CQ and job-related performance in the banking industry (Darvish, Khalili, & Noodeh Farahani, 2013). There are two important practical implications from the 2012 Chen et al. study. First, having high motivational CQ means that an individual who possesses the personal persistence to work through the challenges that can accompany cross-cultural interactions may be more successful than those who do not have the same motivation. The second implication is that the culture of an organization can greatly influence individual motivational CQ, and thus it may be worthwhile for organizations to invest in developing CQ at the macro level, not just at the individual level.

Additional research has extended the link between CQ to work performance, examining the relationship between teacher performance and CQ in international schools (Gohar, 2014). Gohar surveyed 84 expatriate teachers working in international schools in Cairo, Egypt. Participants were asked to rate their level of job satisfaction, teacher performance, and CQ. The results of the

study revealed that the higher the level of CQ, the higher the levels of overall job satisfaction. Furthermore, the research demonstrated that the higher the level of CQ, the higher the level of overall teacher performance. The researcher argues that higher levels of the four factors of CQ, especially motivational CQ, indicate that the teachers are more likely to put forth effort and persist in their endeavor, thus enhancing teaching performance.

CQ and trust. The development of CQ at both the individual and organizational level may contribute to increased trust between members in diverse settings. Moule (2012) states that trust can "develop cross-culturally. But it is not easy. It requires the right skills, a sincere desire to help, a willingness to openly acknowledge and discuss racial and ethnic differences, and a healthy tolerance for being tested" (p. 8). Ang and Van Dyne (2008) addressed this issue by extending the research of CQ to trust in multicultural teams. The authors argued that diverse groups are more likely to experience problems with low cohesion, increased conflict, and poor performance. Ang and Van Dyne's quantitative study explored the relationship between interpersonal trust and the four components of CQ, using the dyad as the unit of analysis. Data collected from 259 students in a large business school in Singapore who were assigned to culturally diverse teams indicated that participants with high levels of metacognitive and cognitive CQ reported more trust in their culturally different partners. Furthermore, the research found that when students perceived their partner to have high behavioral CQ, they also experienced greater levels of trust.

This finding is significant because individuals need a certain level of trust to effectively navigate the conflicts that may arise from cultural differences.

CQ and leadership. Many scholars identify CQ as an important part of effective leadership in multicultural settings (Alon & Higgins 2005; Ang & Inkpen, 2008). This has significant implications for the culturally diverse landscape of higher education, where members from all levels of the organization—from students to teachers to administrators—can serve in leadership roles (Lambert, 2002). Groves and Feyerherm (2011) argue that CQ is a necessary competency for leaders of culturally diverse teams. For their study, Groves and Feyerherm hypothesized that leader CQ will affect how their followers rate their performance. In order to test their hypothesis, they used the CQS in conjunction with an emotional intelligence scale (Wong & Law, 2002), and the In-Job Performance Scale (Turnley, Bolino, Lester, & Bloodgood, 2003) to conduct a quantitative survey of 99 culturally diverse managers and project leaders and 321 of their followers from different U.S. businesses. The results demonstrated that followers from culturally diverse teams perceived leaders with high CQ as performing better as leaders and that those leaders with high CQ encouraged better team performance. Furthermore, the researchers identified that CQ was a better predictor of leader and team performance for diverse groups than emotional intelligence, which previous research supports (Ang et al., 2007; Ward, Fischer, Lam, & Hall, 2009).

Researchers have also linked CQ to effectiveness of leaders in educational settings (Naughton, 2010). Naughton (2010) conducted a strategic

sampling of effective high school principals in ethnically diverse schools. Naughton used three methods to collect quantitative and qualitative data: the 20-Item CQS, one-on-one interviews, and an ethnographic field study observing each participant. Quantitative and qualitative findings concluded that highly effective principals demonstrated high levels of CQ. Furthermore, the principals were mindful of their CQ and demonstrated behavioral CQ. Motivational CQ was the principal's highest area of CQ, which indicates a strong willingness to work with and learn about new cultures. The lowest score was cognitive CQ, which reflected the principal's lack of knowledge of cultural rules and languages. Naughton surmised that awareness of one's own CQ can be a contributing factor to personal success in educational contexts.

Additional research links CQ to styles of leadership in education (Keung, 2011). Keung (2011) examined the relationship between CQ and transformational leadership in 250 international school leaders. Using the CQS and the MLQ 5X (an instrument used to measure transformational leadership) (Bass & Riggio, 2012), the results revealed that the four factors of CQ in combination were positively associated with all five components of transformational leadership. Additional research on trade managers in culturally diverse offices supported the link between CQ and transformational leadership (Ismail, Reza, & Mahdi, 2012). Keung (2011) argued that CQ is positively linked to all levels of leader decision making in education, such as "mundane logistical decisions of when and where to have a meeting to matters of critical importance, such as a contingency issue like school violence" (p. 37). Keung argued that the

implications of this study included that CQ should be considered in the selection, training, and professional development of faculty, as well as integrated into higher education curriculum.

CQ and conflict. Scholars have begun to extend research on CQ by examining its relationship to conflict management in culturally diverse organizations, although research in this area is extremely limited (Ang & Van Dyne, 2008; Elkhouly & Gamaleldin, 2012). Ang and Van Dyne (2008), stress that multicultural teams may be more likely to experience conflict if team members do not have high behavioral CQ. Elkhouly and Gamaleldin (2012) built on the relationship between CQ and conflict by investigating the relationship between cognitive CQ and conflict styles of employees in an international firm. The researchers used the CQS and Rahim's Conflict Inventory (Rahim, Antonioni, & Psenicka, 2001) to survey 154 managers of Egyptian and European descent. The research suggested that the higher the level of cognitive CQ, the less likely managers were to use a domineering style of conflict management. The research revealed no gender differences; however, one limitation of the study was that the small number of female participants made it difficult to generalize the gender findings. The authors noted that knowledge of more than one language, nationality, and age were positively related to CQ scores. The Egyptian participants displayed higher levels of CQ than the European participants did. Younger participants displayed higher CQ scores than older participants, which the authors attributed to changing generational cultural values. This line of research indicates that CQ can be an important variable

mediating conflict management styles in culturally diverse settings, where knowledge of cultural differences and appropriate behavioral skills can be instrumental for the successful resolution of conflict.

Although a relatively new concept, research on CQ has quickly grown. This section introduced CQ, including the four tenets of the theory: metacognition CQ, cognition CQ, behavioral CQ, and motivational CQ. Second, this section overviewed factors that contribute to CQ. Finally, this section provided a summary of the scholarly literature related to CQ outcomes. The next section of this chapter provides an overview of conflict management.

Conflict Management

Conflict is "sewn into the fabric" of higher education (Gmelch & Burns, 1991, p. 110), influencing faculty, administrator, and student relationships (Findlen, 2000). This section provides an overview of conflict, the role of conflict in the context of higher education, and approaches to conflict management styles.

Economists, historians, novelists, philosophers, political scientists, sociologists, political scientists, theologians, and even biologists have examined conflict (Rahim, 2010). As with any topic studied across disciplines, conflict has numerous definitions. For the purpose of this study, conflict is "an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce resources, and interference from others in achieving their goals" (Wilmont & Hocker, 2001, p. 41).

Philosophical Approaches to the Study of Conflict. Scholars present several different traditional approaches to the study of conflict (Gmelch & Burns, 1991; Rahim, 2010). Gmelch and Burns (1991) argue that there are three philosophical perspectives to conflict: traditional, behavioral, and principled. The traditional perspective holds that conflict is harmful and should be reduced at all costs. The behavioral perspective considers conflict as natural and something that with modifications in behavior and attitudes can reduce. The principled perspective views conflict as necessary and something that can help to improve organizations. Rahim (2010) suggests two views of conflict in organizations: classical and modern. Similar to the traditional perspective, the classical view of conflict stressed, "that conflict was detrimental to organizational efficiency and therefore should be minimized in organizations" (Rahim, 2010, p. 7). The modern perspective reflects a shift in attitude toward conflict that views conflict as necessary, legitimate, and essential for productivity. This perspective stresses that too little or too much conflict is problematic for organizations and that constructive management practices are essential for organizational effectiveness (Rahim & Bonoma, 1979). As Ting-Toomey and Oetzel (2001) observe:

> Conflict, when managed competently, can bring about positive changes in a relationship. It allows the conflict partners to use the conflict opportunity to reassess the state of the relationship. It opens doors for the individuals in conflict to discuss in depth their wants and needs in a relationship. It clarifies misunderstandings and strengthens common interests and goals. It also promotes individual and relationship growth. (p. 3).

The modern or principled view of conflict suggests it is something to be recognized, responded to appropriately, and resolved through appropriate conflict management (Gmelch & Burns, 1991; Rahim, 2010). Conflict management "involves designing effective strategies to minimize the dysfunctions of conflict and maximize the constructive functions of conflict in order to enhance learning and effectiveness in an organization" (Rahim, 2000, p. 5).

Constructive and Destructive Conflict. Conflict has been described as both constructive and destructive. Constructive conflict in relationships and organizations is linked to improved decision making, employee satisfaction, ethical behavior, awareness and understanding (Amason & Schwiger, 2000; Haas, 1999; Kuhn & Poole, 2000; Tjosvold, 1990; 2000). On the other side, dysfunctional conflict can negatively affect relationships and individuals' physical and mental health. Research links destructive conflict to health problems, increased legal costs, wasted time, poor decision making, low employee satisfaction, high employee turnover, decreased motivation, and decreases in ethical behavior (Amason & Schwiger, 2000; Dana, 2001; Donovan, 1993; Jehn & Chatman, 2000; Kuhn and Poole, 2000; Rahim, 1990a; Schweiger & Sandberg, 1991). For example, one study of 808 department chairs from colleges and universities across the country found that chairs reported interpersonal conflict as the major source of job stress (Gmelch & Burns, 1991). Additionally, a study of 85 members of a medical department at a southeastern university found a significant relationship between style of conflict management

and increased perception of stress (Friedman, Tidd, Currall, & Tsai, 2000). Research suggests that the skills individuals use when managing conflict can influence whether the conflict is constructive or destructive (Cupach & Canary, 1997).

Conflict Sources. Sources of conflict have been evident in higher education since its inception (Holton, 1995). Gmelch and Carroll (1991) suggest that higher education is particularly conducive to conflict due to the hierarchical nature of most educational organizations, and where there exists "participatory decision making, segmented rewards, high interdependence, use of authoritative positional power, and tension between the academic and administrative core of faculty and administration" (p. 114).

General sources of conflict. Scholars identify many sources of conflict in interpersonal, organizational, and intercultural relationships. Conflict can come from competing interests and goals (Sherif, 1966), power in-balances (Deutsch & Coleman, 2000; Krauss & Morsella, 2000), relational issues and communication problems. In terms of faculty–student relationships, power in-balances caused by the authority of the instructor, student lack of participation in decision making and grade outcomes can exacerbate the conflict. Furthermore, conflict can exist over substantive issues, such as policies, rules, and procedures (Guetzkow & Gyr, 1954).

Conflict and culturally diverse groups. Ting-Toomey and Oetzel (2001) identify five sources of conflict in culturally diverse groups: cultural differences, assimilation versus ethnic identity maintenance, power imbalances, competing

conflict goals, and competition for scarce resources. First, conflict can come from cultural differences "because of misunderstandings related to different world-views and communication styles" (p. 106). A second source of conflict can be the tension between pressures to assimilate to the values of the larger society versus a personal need to preserve ethnic identity. Third, power imbalances can contribute to conflict in organizations. As Ting-Toomey and Oetzel note, "Power, and the distribution of power, is a critical resource in an organization. One measure of power is the proportion of representation in a group or organization" (p. 108). Fourth, conflict can emerge from competing goals. Conflict can occur over goals regarding content issues (conflict over topics such as grades), relational issues (conflict over the status of the relationship), identity issues (conflict over being valued), and process issues (conflict over how we communicate or conduct business). Last, individuals can experience conflict over scarce resources. Resources can be time, money, real estate, and power.

Conflict and higher education. Researchers have identified many sources of conflict within the halls of higher education. The structural, functional, and relational organization of higher education provides an atmosphere that is conducive to the development of conflict (Findlen, 2000; Gmelch & Carrol, 1991). Within the context of higher education, conflict can occur in a variety of faculty relationships including: faculty-administrator, faculty-student, and faculty to faculty (Findeln, 2000; Meyers, Bender, Hill, & Thomas, 2006).

Educational leaders consider conflict management an essential skill for individuals working in the community college systems. A study of 128 community

college chief executive officers who had earned their doctoral degrees, asked participants to rank order 48 different leadership skills, from financial knowledge to public speaking, as to what they believed to be the most important skills for college leaders (Brown, Martinez, & Daniel, 2002). The college leaders identified conflict management training as an underrepresented skill in educational doctoral programs and recommended conflict management as the single most important skill that they thought educational leadership programs should emphasize. From faculty to administrators, conflict has so many sources that it has become a vital skill for educators.

Within the context of higher education, researchers have identified several specific sources of conflict; some of the most common sources include inconsistent applications of policies (Findlen, 2000). Additionally, students and faculty experience conflict over requests for rule waivers, grade appeals, horror stories, discrimination complaints, poor teaching, and tasteless classroom conduct (Tucker & Bryan, 1988). Tantleff-Dunn et al. (2002) conducted a quantitative survey of 122 college students on their perceptions of conflict with faculty. Students reported that student–faculty conflict resulted from grade disputes, unfair exam content, professor conduct, perceived teaching limitations, and disagreements over validity of student excuses. Other researchers have identified that increasing ethnic/cultural diversity in college classrooms can create student racial conflict (Pasque et al., 2013). Department chairs report conflict resulting from faculty attitudes, unsupportive faculty and chairs, evaluations, and taking on the role of mediator (Gmelch & Burns, 1991).

Conflict in the classroom can have a significant impact on students and faculty. Research on university students indicate that conflicts with faculty dominate student thoughts, make it difficult to focus on courses, and may even lead students to seek medical care (Harrison & Morrill, 2004). Furthermore, students express concern about the impact of conflict on their careers, financial aid eligibility, and overall perception of their school (Harrison, 2004b; Harrison, 2003). Conflict can have an adverse effect on faculty and colleges as well. Conflict can cause students to drop their classes (Harrison & Morrill, 2004), and drop out of the university (Harrison, 2004b). Students report wanting to "destroy" the career of the faculty member and seeking legal counsel (Harrison, 2003). Last, student conflict with faculty can cause the student to view the school as an uncaring institution (Harrison, 2004a). Conflict management styles can be an important factor in influencing individual perceptions of the conflict.

Conflict Management Styles. Conflict management is the process of "designing effective strategies to minimize the dysfunctions of conflict and maximize the constructive functions of conflict in order to enhance learning and effectiveness in an organization" (Rahim, 2000, p. 5). In particular, Wilmont and Hocker (2001) identify conflict management styles as "patterned responses or clusters of behavior individuals' use in conflict situations utilizing various interaction methods" (p. 130). For this study, Rahim's (1983) model for conflict management provides the framework for understanding conflict management styles.

Rahim's model stemmed from Blake and Mouton's (1964a) five conflict management styles, which include forcing, withdrawing, smoothing, compromising, and problem solving. Management attitudes regarding concern for people versus concern for production provide the structure for Blake and Mouton's five-style model. Rahim (1983) proposed an alternative conflict style model based on individual motivational orientations regarding concern for self versus concern for other. Concern for self refers to the degree to which an individual attempts to meet his or her own needs in a conflict situation. Concern for other refers to the degree to which an individual attempts to meet the needs of the other party in the conflict. Various combinations of concern for self versus concern for other result in five conflict management styles, including integrating, avoiding, dominating, obliging, and compromising. The next sections review Rahim's five styles of conflict management.

Integrating. High concern for self *and* high concern for others are the basis for the integrating style of conflict management (Rahim, 1983). Integrating consists of problem solving, open communication, confrontation of conflict, and collaboration between key parties (Rahim, 2010). Rahim (2010) stresses that integrating may be the best approach for conflict management when two people must work together to solve the problem, when buy-in is needed from the other party, for long-term planning, and when dealing with strategic issues related to the organization's mission. Integrating may not be appropriate when dealing with small issues, when quick decisions are needed, when parties do not care about the outcomes, and when parties lack problem-solving training (Rahim, 2010).

Obliging. The obliging style of conflict management consists of high concern for others and low concern for self (Rahim, 1983). Obliging is also known as accommodating, because individuals who use an obliging approach to conflict management make self-sacrifices to put the needs of the other person before their own. Obliging was found to be suitable for situations when the conflict is more important to the other party, when an individual is willing to make a sacrifice now in return for something later, when an individual is operating from a position of less power, or when an individual is wrong (Rahim, 2000). A study of 82 members from a university medical department used Rahim's conflict model to examine personal conflict style on work conflict and stress and found that high levels of obliging were correlated with low levels of perceived relational conflict (Friedman et al., 2000).

Dominating. The dominating style of conflict management consists of high concern for self and low concern for others (Rahim, 1983). This approach is competitive in nature, with a win–lose orientation to conflict. Individuals using a dominating approach may ignore the needs and expectations of others, try to win at all costs, and use their position of power to impose their will upon others (Rahim, Magner, & Shapiro, 2000). The dominating style of conflict is

> appropriate when the issues involved in a conflict are important to the party, or an unfavorable decision by the other party may be harmful to this party. . . . This style is inappropriate when the issues involved in conflict are complex and there is enough time to make a good decision (Rahim, 2010, p. 54).

Avoiding. The avoiding style of conflict consists of the physical and emotional evasion of topics, situations, and people that evoke conflict. Rahim categorizes this style as low concern for self and low concern for others. However, other cultures might not view avoidance negatively, as this approach may be used to preserve harmony in relationships (Ting-Toomey, 1988). Rahim (2000) asserts that avoidance of conflict is fitting to use if the issue is of little importance, if parties need time to cool-off, or if the disadvantages outweigh the benefits of confrontation. Avoidance is not appropriate when quick action is needed, when decision making is required, or when parties are "unwilling to wait" (Rahim, 2010, p. 54)

Compromising. The compromising style of conflict management consists of medium concern for self and medium concern for other. This approach involves finding a middle ground in the conflict situation. Rahim (2000) suggested that compromising is effective when the conflict parties have equal power, when parties need a temporary solution, when parties cannot reach consensus, and when the conflict goals are mutually exclusive. Compromising is inappropriate when there are power in-balances, problems are complex, long-term solutions are needed, or when dealing with value conflicts (Rahim, 2010).

Understanding conflict management styles can provide insight on how to improve conflict encounters (Conerly & Tripathi, 2004). Scholars argue that no one style is better than the others; however, the styles can be perceived differently depending on the context (M. Gross & Guerrero, 2000). For example, a study of 200 business students in work teams found that the students

perceived integrating as most effective and avoiding as an ineffective and inappropriate response to conflict. Additionally, Friedman et al. (2000) found that integrating and obliging are associated with less conflict, while dominating and avoidance produced more conflict.

Conflict styles and higher education. Conflict in college settings is common, upsetting, and affects how faculty members and students feel about their experiences (Meyers et al., 2006). Research demonstrates that faculty members have different responses to conflict. One study of 83 MBA faculty members surveyed instructors on their responses to three types of conflict with students: violation of class norms by students, grade challenges, and perceived instructor deficits (Rao, 2012). Results indicated that faculty report highest preference for collaborative styles of conflict management and least preference for the use of avoidance. The results of this study are consistent with previous research that demonstrated faculty members tend to prefer collaborative and/or integrating conflict management styles and approaches that focus on the faculty–student relationship (Bartlett, 2009; Morris-Rothschild & Brassard, 2006; Meyers et al., 2006).

Bartlett (2009) explored the relationship between conflict management styles and workplace incivility for 176 community college senior administrators at community colleges in nine states. The results of the study indicated that when senior level administrators have high use of integration as a conflict management style they also perceive low levels of workplace incivility. However, it is worth noting that as perceptions of workplace incivility increased, use of an integrating

conflict management style decreased. The study found no significant relationship between gender, age, or education level and any of the five conflict management styles.

Friedman et al. (2000) explored the relationship between conflict management styles, workplace conflict, and stress in 85 members of a university hospital affiliated clinic. The researchers identified two common types of workplace conflict: task and relational. Task conflict is a perceived struggle over work-related issues, while relational conflict is interpersonal in nature. The authors noted that conflict over task-related issues can produce relational conflict. In order to examine the relationship between conflict styles, types of workplace conflict, and stress, the study used three measurement scales: Rahim's Organizational Conflict Inventory (Rahim, 1983), Jehn's (1995) Conflict Scale to measure task conflict, Cox's Organizational Conflict Scale (1998) to measure relational conflict, and Cohen, Kamarck, and Mermelstein's (1983) Perceived Stress Scale to measure stress levels related to conflict. The results indicated that individuals who used an integrative style reported lower levels of task conflict, which reduced relational conflict and perceived stress. Those with dominating and avoiding styles experienced higher levels of task conflict, which led to higher levels of relational conflict and increased perceptions of stress.

Overall, although conflict is a pervasive part of life in higher education, there is a lack of research on conflict in educational settings (Hearn & Anderson, 2002). Several scholars have called for more research on conflict management in the context of higher education (Adams, 2006; Blackburn, 2002; Donovan,

1993; Green, 1984; Pritchard, 1985). The majority of research on instructor–student conflict focuses on K-12 (Tantleff-Dunn et al., 2002), with very limited research on conflict in the context of community colleges (Bartlett, 2009). Primarily, "past literature on conflict in the college population has been theoretical and focused on prescribing strategies for managing conflict" (Tantleff-Dunn et al., 2002, p. 198). Therefore, further examination of conflict management in higher education is an area that warrants additional research (Adams, 2006; Blackburn, 2002; Donovan, 1993; Green, 1984; Pritchard, 1985).

Cultural Intelligence and Conflict Management. Several scholars have established an important relationship between culture, cultural competence, CQ, and conflict (Carl, Gupta, & Javidan, 2004; Reyes-Ramirez, 2010; Stephan, 1999; Ting-Toomey, 2009; Ting-Toomey & Oetzel, 2001). With increased globalization, there are increased opportunities for interaction with culturally different people. Goh (2012) argues that the growth of diversity in educational settings can unwittingly increase opportunities for conflict between faculty and students, which necessitates the need for faculty members with CQ. Face-negotiation theory (Ting-Toomey, 1988) provides systematic theoretical links between cultural competence and conflict management that facilitate a critical basis for the relationship between CQ and conflict.

Ting-Toomey's (1988) face-negotiation theory provides a valuable means of understanding the relationship between culture, conflict, and cultural competence. The theory maintains that people handle conflict in different ways because of different levels of face concerns, cultural backgrounds, and

situational factors such as organizational position. *Face concerns* refer to the social impression that an individual would like to make on others. For example, in the case of faculty–student relationships, it is likely that both faculty members and students would like to be respected and appreciated by each other. Cultural background can be shaped by factors like ethnic identity and cultural values, such as individualism/collectivism and power distance. Organizational position can refer to an individual's placement in an organization and their level of status, such as their placement or rank in the hierarchy of the institution (Daniels, Spiker, & Papa, 1997).

Overall, culture adds layers to the negotiation of conflict in diverse settings. First, interactions in culturally diverse settings such as college classrooms are complicated by what Ting-Toomey (2009) refers to as the ESP factors: ethnocentrism, stereotypes, and prejudice, which can serve as lenses that can influence conflict in diverse settings. Second, Ting-Toomey (2009) stresses that an individual's unique cultural socialization processes influence preferences about what is considered the best approach to conflict management. For example, in one study of 768 individuals from four countries—China, Germany, Japan, and the United States—Ting-Toomey and Oetzel (2001) found that participants' levels of individualism/collectivism directly impacted their conflict styles. Third, an individual's approach to conflict can influence others' perceptions of their cultural competence and can impact levels of satisfaction. Last, cultural competence may influence an individual's ability to adapt and effectively negotiate conflict situations.

Face-negotiation theory maintains that intercultural competence is essential for negotiating conflict effectively in intercultural relationships (Ting-Toomey, 1988). The theory stresses the need to integrate knowledge, mindfulness, and communication skills for appropriate, effective, and adaptive negotiation of conflict in diverse settings. The knowledge dimension, which emphasizes an understanding of cultural values, face needs, and face-work strategies, is similar to cognitive CQ. The mindfulness dimension, which emphasizes being aware of personal assumptions as well as the assumptions of others, shares similarities to metacognitive CQ and motivational CQ. The mindfulness dimension is reflective of metacognitive CQ in the emphasis on personal reflection and awareness of multiple perspectives. However, the mindfulness dimension of face-negotiation theory shares commonalities with the motivational CQ component. Spitzberg and Changnon (2009) argue that, "Openness to novelty is considered a mindfulness facet but clearly also reflects a motivational orientation toward the world" (p. 12). The communication skills dimension is similar to behavioral CQ, emphasizing appropriate and effective adaptation of verbal and nonverbal skills.

In line with research on cultural competence, scholars have identified CQ as a factor that may affect conflict in culturally diverse settings (Blasco, Feldt, & Jakobsen, 2012; Elkhouly & Gamaleldin, 2012; Reyes-Ramirez, 2010). As such, scholars have hypothesized that CQ may help individuals select culturally appropriate conflict management strategies (Elkhouly & Gamaleldin, 2012; Reyes-Ramirez, 2010). There are clear links between conflict management and

the four components of CQ. Each of the four components of CQ may directly influence an individual's ability to successfully manage conflict in diverse cultural settings.

The first component, motivational CQ, refers to the desire and willingness to learn and adapt to new cultural systems (Earley et al., 2006). In the terms of successful conflict negotiation between faculty members and students, this refers to the faculty member's being aware of the intrinsic and extrinsic value of recognizing sensitive cultural dynamics while trying to resolve conflicts with students. The second component, metacognition CQ, involves cultural awareness, strategic planning, and checking (Earley et al., 2006). Planning refers to "strategizing before a culturally diverse encounter" (Van Dyne et al., 2012, p. 299). In terms of faculty–student conflicts, planning refers to the ability of faculty to strategically prepare for the best approach to help all sides in the conflict feel that their conflict needs have been attended to. The third component, cognitive CQ, refers to obtaining both culture-specific and culture-general knowledge of the system (Earley et al., 2006). In terms of faculty–student conflicts, cognitive CQ applies to faculty members' having both specific knowledge of students' cultural backgrounds and the values, norms, expectations, and conflict scripts students bring to the classroom. Furthermore, it necessitates faculty having broad knowledge of cultural patterns, such as individualism/collectivism and power distance. The fourth component, behavioral CQ, is the ability to recognize the communication skills that are appropriate and necessary to achieve desired goals. Ting-Toomey (2009)

stresses that individuals in conflict situations need to model behaviors that are both flexible and adaptable. In terms of faculty–student conflicts, this refers to the faculty member's ability to model appropriate verbal and nonverbal behaviors to aid in the resolution of conflict.

In addition to CQ, it is worthwhile to note that researchers have established relationships between conflict management style preferences and other types of intelligence in academic settings. For example, Chan, Sit, and Lau (2013) used the Schutte Emotion Intelligence Scale (SEIS) and the Rahim Organization Conflict Inventory II (ROCI-II) to examine if a correlation existed between levels of emotional intelligence and conflict management preferences of nursing students in a university setting. The study of 568 undergraduate nursing students found that the lower the level of emotional intelligence, the more likely it was for students to use avoidance to respond to conflict. In addition, the results showed that the higher the level of emotional intelligence, the more likely students were to use all other styles of conflict management, suggesting that individuals with high emotional intelligence are more likely to use a wide variety of conflict management styles, depending on the needs of the situation.

Based on previous research on CQ, conflict, cultural competence, and emotional intelligence, it is likely that individuals with high cognitive CQ will be less likely to use a domineering conflict style. It is also likely that individuals with high metacognitive, motivational, and behavioral CQ will be more likely to use a wide variety of conflict management styles, depending on the needs of the situation.

This section provided an overview of scholarly research as it relates to conflict management, particularly in the context of higher education. First, a working definition of conflict was presented. Second, an overview of the literature related to philosophical assumptions about conflict, constructive and destructive conflict, conflict sources, and conflict management styles was provided. Finally, a case for the link between CQ and conflict management styles was presented.

Chapter Summary

This chapter provided an overview of culture, intelligence theory, cultural competence, CQ, and conflict management styles. Overall, scholars have long acknowledged the importance of cultural competence for education. CQ has expanded on previous research on cultural competence by providing a strong theoretical foundation from intelligence theories and the creation of a reliable assessment tool. An understanding of the evolution of intelligence theories offers important insight into the creation of CQ. Research on the precedents and antecedents of CQ indicate that it has relevance for higher education in terms of staff development, selection standards, and curriculum development. As a new theory, it has not been widely applied to education contexts; nevertheless, this theory has significant potential to add value to the research on cultural competence in higher education. CQ can provide insight into faculty–student interactions in culturally diverse settings.

The complex hierarchical nature of community colleges makes it an environment conducive for the development of conflict. CQ is a factor that may affect conflict management in the context of higher education. Since limited

research addresses the relationship between CQ and conflict management style preferences, it is important to research the factors to enhance understanding of faculty–student interactions in culturally diverse settings.

CHAPTER 3

RESEARCH METHODOLOGY

Community college student and faculty populations are more diverse than ever, yet scholars lack an understanding of whether faculty members have the skill set to be effective in diverse educational settings (AACC, 2013; Valentine et al., 2012). Changes in the cultural makeup of community college faculty members and student bodies may create opportunities for conflict (Mahon, 2009; Runde & Flanagan, 2010). Theories of cultural competence have been used to help understand diversity in education, yet researchers suggest that traditional conceptions of cultural competence are limited in their explanatory power because of a lack of theoretical basis, lack of collaboration across disciplines, and a lack of valid assessment measurements (Ang et al., 2007; Prieto, 2012). The CQ model provides a theory-backed tool to assess "an individual's capability to function and manage effectively in culturally diverse settings . . . a specific form of intelligence focused on capabilities to grasp, reason, and behave effectively in situations characterized by cultural diversity" (Ang et al., 2007, p. 337). Gaps in research warrant examining CQ and its relationship to conflict management strategies in the context of community college faculty–student relationships.

The purpose of this study was to understand the degree to which community college faculty members possess CQ and how CQ predicts conflict

style in community college faculty who teach diverse student populations. To address the purpose of this study, the following research questions were proposed:

1. What demographic characteristics predict increased levels of cultural intelligence in full-time community college faculty?
    a. Which faculty characteristics predict increased metacognitive CQ?
    b. Which faculty characteristics predict increased cognitive CQ?
    c. Which faculty characteristics predict increased motivational CQ?
    d. Which faculty characteristics predict increased behavioral CQ?
2. What demographic characteristics predict the five conflict management styles in full-time community college faculty?
    a. Which faculty characteristics predict the integrating conflict management style?
    b. Which faculty characteristics predict the dominating conflict management style?
    c. Which faculty characteristics predict the obliging conflict management style?
    d. Which faculty characteristics predict the avoiding conflict management style?
    e. Which faculty characteristics predict the compromising conflict management style?

3. How do the four factors of cultural intelligence predict faculty members' preferred style of conflict management?
    a. How do the four factors of CQ predict the integrating style of conflict management?
    b. How do the four factors of CQ predict the dominating style of conflict management?
    c. How do the four factors of CQ predict the obliging style of conflict management?
    d. How do the four factors of CQ predict the avoiding style of conflict management?
    e. How do the four factors of CQ predict the compromising style of conflict management?

The next section of the paper provides an overview of quantitative research methods, philosophical assumptions, and the research design.

Quantitative Research

According to Creswell (2009), quantitative research is "a means for testing objective theories by examining the relationship among variables" (p. 4). In the case of this study, the research tested CQ theory by examining the relationship between levels of the four components of CQ and faculty conflict management styles.

Quantitative research is largely postpositivist in its underlying worldview or paradigm (Creswell, 2009; Mertens, 2003). Postpositivism relies on the use of experimental methodology to observe an "objective reality" (Creswell, 2009, p. 7).

Creswell (2009) argues that from a postpositivist paradigm the scientific method follows a process whereby "an individual begins with a theory, collects data that either support or refute the theory, and then makes necessary revisions before additional tests are made" (p. 7). In contrast with researchers employing a purely positivist approach, postpositivists accept that multiple factors, such as researcher background, knowledge, and values, as well as the theory used to guide the study, can affect research outcomes (Robson, 2002). Despite these factors, postpositivism still seeks to explain objective, consistent patterns of behavior and nature. The postpositivist paradigm enables researchers to identify specific variables to examine from an objective approach. Ryan (2006) stresses that from a postpositivist paradigm it is impossible to separate theory and practice. The traditional positivists formulated theory for theory's sake. The postpositivists make research practical and applicable.

Quantitative methods allow the researcher to isolate a specific area of study and use surveys or other standardized instruments to measure specific variables and analyze the data in an objective manner (Creswell, 2008). There are several benefits of quantitative research: (a) researchers can generalize the findings to the broader population, (b) closed-ended survey questions can help researchers identify patterns in the data, and (c) surveying participants with a quantitative measure allows for the comparison and statistical aggregation of the data (Yilmaz, 2013). Nonetheless, quantitative methods are not without limitations. One of the most significant limitations of quantitative research is that the lack of personal responses can limit the richness of the data, since

individuals are not able to provide unique responses to questions or problems. Quantitative research may largely overlook the unique, personal responses and values that subjects attribute to the variables in the study (Patton, 2002). R. Johnson and Onwuegbuzie (2004) identify four additional limitations of quantitative research:

- The researcher's categories in the studies may not reflect local constituencies' understandings.
- The researcher's theories may not reflect local constituencies' understandings.
- The researcher may miss phenomena occurring because of the focus on theory or hypothesis testing rather than on theory or hypothesis generation (called confirmation bias).
- Knowledge produced may be too abstract and general for direct application to specific local situations, contexts, and individuals. (p. 19).

As with all research methods, a quantitative approach has inherent strengths and weaknesses. This study used a postpositivist paradigm to investigate the relationship between faculty CQ and conflict management styles. The postpositivist paradigm supports a quantitative approach because it stresses the integration of theory and practice and allows for the analysis of specific variables. Although not without its limitations, the strengths of a quantitative approach outweigh the weaknesses in that this approach allows for the

identification of patterns in the data, as well as to generalize the findings to a broader population.

Research Design

For the purpose of this study, the research used surveys and a nonexperimental correlational design. The study used two established surveys to determine if a relationship exists between the four factors of CQ and five conflict management styles. This study used the 20-item CQS, which measures the four components of CQ, including motivational CQ, behavioral CQ, metacognitive CQ, and cognitive CQ (Ng et al., 2012). The research also used the ROCI-II (1983, 1990a) to assess five conflict management styles: dominating, obliging, integrating, compromising, and avoiding.

Correlational research is an important form of quantitative methods (Creswell, 2012). The purpose of correlational research is to make predictions or to identify the relationship or association among two or more variables. Typically, variables are not controlled or manipulated by the researcher and statistical techniques are used to analyze the data. A common form of correlational research focuses on explanatory design, a form of research that investigates the degree to which two or more variables are related. Osborne (2010) stresses that in the best correlational studies, a researcher will have (a) a theoretical basis for the issue, (b) a high-quality measurement for the variables, (c) the appropriate method of analysis, (d) "attention to detail in ensuring the assumptions of the approach are met" (p. 56), and (c) attention to detail in conducting analysis and interpretation of results.

Correlational research has advantages and disadvantages as a research method (Lomax & Li, 2013). First, correlational research is a useful starting point to determine if relationships between variables do exist. A second benefit of correlational research is that it enables researchers to examine variables that cannot be manipulated due to ethical or practical concerns. Alternatively, there are several limitations to correlational research. First, researchers must be cautious not to mistake correlation for causation. Second, correlational research suffers from a directionality issue; when variables are measured at the same time, it is difficult to distinguish between the independent and dependent variables. Last, researchers are unable to measure or predict the third variable problem—there may be additional factors that were not measured or controlled for in the study that are causing changes in the variables.

Research Methods

This section describes the research methods used in this study. Specifically, this section describes the setting, sample, data collection, survey instrumentation and management, data analysis, and role of the researcher.

Setting

The setting for this study consisted of four large California community colleges. Each of the colleges selected for this study met four criteria, including diversity of student population, minimum student enrollment, full-time faculty ratio, and location.

Diversity. The schools selected for this study have diverse ethnic student populations. This criterion is representative of statewide levels of student

diversity as reported by the California Post-Secondary Education Commission (2013): 7% African American; 11% Asian; 3% Filipino; 33% Hispanic; 6% Native American; 7% unknown; 32% White. To determine the diversity of student populations, demographic data was collected from the California Community Colleges Chancellor's Office. Because the purpose of this study was to examine the CQ levels of community college faculty who teach in diverse institutions, it is important to set this study in culturally diverse contexts where faculty interact with diverse student populations on a regular basis.

Enrollment. Each school in this study had a student population greater than 10,000 students as of 2013. Selecting campuses with a minimum enrollment of 10,000 students helped to ensure a larger population of diverse student populations.

Full-time faculty ratio. The full-time faculty constituted at least 50% of the teaching staff. Full-time faculty ratios were determined at the time of the study through the California Community Colleges Chancellor's Office. Although California Title 5 regulations set a goal of 75% of credit units taught by full-time faculty members, many California community colleges fall below this target. Eliminating colleges that have less than 75% of credit units taught by full-time faculty eliminated several colleges in the region. This study focused on responses from full-time faculty members; to gain a large enough sample size of faculty, schools with less than a 50% full-time faculty ratio were not included.

Location. The colleges in this study were urban and located in the greater Southern California region. It was anticipated that numerous colleges in the

region would satisfy the demographics criteria, so the initial pool of potential schools was narrowed to seven schools based on ease of access to the college.

Sample

Creswell (2008) defines a sample as "a subgroup of the target population that the researcher plans to study for generalizing about the target population" (p. 152). For quantitative, survey-based research, the selection of the population sample is one of the most crucial components of the development of the study (Girden & Kabacoff, 2011). Surveys went out to 800 full-time faculty members, representing four different community colleges, with the assumption of a minimum 20% response rate. The number of participants needed to be around 108 following the rule of thumb of $N \geq 104 + m$ (m representing the four factors of CQ; Tabachnick & Fidell, 2007). A total of 317 faculty members completed the surveys, with a total 39.6% response rate. There were 269 useable survey responses.

According to the California Community Colleges Chancellor's Office, as of 2012 (the most recent date data was available), there are 17,265 full-time tenured or tenure-track faculty employed by the community college system. Fifty-four percent of community college faculty members are female. At the state level, California Community College faculty members' diversity is as follows: African Americans, 5.8%; American Indians, 0.9%; Asian, 8.75%; Hispanic, 13.44%; multiethnic, 0.82%; Pacific Islander, 0.56%; other, 5%; and White, non-Hispanic, 64.69% (California Community College Data Mart, 2012). The diversity of the sample in this study was as follows: Asian or Pacific Islander, 35 (11.4%),

Black or African American, 9 (2.9%), Hispanic or Latino, 39 (12.7%), Native American or American Indian, 5 (1.6%), White, 188 (61.0%), multiethnic, 21 (6.8%), Other, 11 (3.6%). Table 1 provides a comparison of the ethnic diversity of survey participants versus state levels.

Table 1

Ethnic Group Breakdown of Participants (N = 317) and Statewide Comparison

Ethnicity	Sample	Statewide
Asian or Pacific Islander	11.4	8.75
Black or African American	2.9	5.80
Hispanic or Latino	12.7	13.44
Native American/ American Indian	1.6	0.90
White	61.0	64.69
Multiethnic	6.8	0.82
Other	3.6	5.00

Participants were selected using purposive sampling, whereby "researchers intentionally select individuals and sites to learn or understand the central phenomenon" (Creswell, 2008, p. 214). In other words, individuals from a specific group are sought out for the purpose of the study. Initially, seven community colleges were invited to participate in this study. Four of the invited colleges agreed to participate upon completion of their institutional review board process. Three of the invited colleges were not included, primarily because of their slow response time to the study invitation.

Full-time faculty (tenure-track, tenured, and temporary) members from four Southern California community colleges were surveyed. In order to survey full-time faculty, the colleges' departments of research and planning provided the

faculty email addresses. Each of the four participating colleges requested a slightly different procedure. College 1 sent the emails directly to full-time faculty from the vice president of instruction. College 2 provided the full-time faculty email addresses, allowing direct emails from the researcher. College 3 sent the emails directly to full-time faculty from the chair of the Institutional Research Board. College 4 requested that the Center for Research on Equity and Access in Leadership at CSU Fullerton disperse the surveys to faculty through email.

Sampling criteria for this population included that all participants must be California community college full-time faculty, who are tenure-track, tenured, or full-time temporary. Although part-time faculty members make up a large and important part of the instructional faculty in community colleges, the study purposively did not include part-time faculty. Part-time faculty were not included in this study because part-time faculty often teach at multiple campuses, have inconsistent teaching assignments, and are not provided with the same staff development opportunities (American Federation of Teachers, 2010). Furthermore, because the study included four community colleges in the greater Southern California region, it would be possible for a part-time faculty member to work at more than one of the participating colleges and thus submit multiple responses. Part-time faculty members face unique circumstances that may affect respondent results.

As with all sampling methods, there are advantages and disadvantages of purposive sampling (Reinard, 2006). Advantages of purposive sampling include that the approach can be cost-effective and time saving. Using purposive

sampling eliminates individuals unsuitable for the study, which can help save time when conducting research. Reducing time constraints and working with a select population can reduce research costs. Additionally, this sample method allows the researcher to focus on unique characteristics of a specific population. Babbie (1983) notes that purposive sampling is useful to study a subset of the larger population, in which members of the "subset are easily identified but the enumeration of all of them would be nearly impossible" (p. 178).

Nonetheless, researchers must be aware of the limitations of purposive sampling. First, purposive sampling is subject to researcher bias, as the researcher imposes the selection criteria for the sample, which may influence the results of the study. However, another way to view this is that a purposive sample can help a researcher focus on specific features of the larger population. A second limitation of purposive sampling is that generalizing the results to the broader population may be limited. The results of this study may be generalized to other urban and suburban community colleges with diverse student populations, but the findings may not apply to colleges with homogeneous student populations. For the purpose of this study, the advantages of purposive sampling outweigh the disadvantages.

Data Collection and Management

Surveys were distributed to faculty members using email. Survey data was collected using an online data collection service, Qualtrics. The survey opened with a consent form for participants (see Appendix D). To incentivize

participation, respondents were offered the opportunity to input their email address at the end of the survey to be entered into a drawing for an Apple iPad.

The purpose of collecting data for this study was to identify the relationship between the four factors of CQ (metacognitive, cognitive, motivational, and behavioral) and Rahim's five styles of conflict management (obliging, avoiding, integrating, dominating, and compromising (Ng et al., 2012; Rahim, 1983). For the purpose of this study, CQ served as the independent variable, and conflict management styles serve as the dependent variables. Control variables include age, gender, ethnicity, academic discipline, years teaching, participation in diversity training, and number of languages spoken.

Instrumentation. This study used two existing instruments to collect data and a researcher-generated demographic survey (See Appendix A). First, this study used the 20-item CQS, which measures the four components of CQ, including motivational CQ, behavioral CQ, metacognitive CQ, and cognitive CQ (Ang et al., 2007) (see Appendix B). Second, the researcher used the ROCI-II (1983, 1990a; see Appendix C) to assess five conflict management styles: dominating, obliging, integrating, compromising, and avoiding. Both instruments satisfy the criteria for choosing a good instrument set forth by Creswell (2008):

- The authors have recently developed the instrument or a recent version exists.
- The instruments are widely cited by other authors.
- Reviews are available for the instrument.

- Information regarding the instrument reliability and validity scores is available.
- The instrumentation fits the research questions.
- The instruments use accepted scales of measurement.

The survey also used a researcher-developed demographic component that asked about years of teaching, highest levels of degree, age, gender, languages spoken, travel experience, diversity training, and conflict experiences. This next section provides an overview of the development of the demographic questions, CQS and ROCI-II, and the studies conducted by researchers to measure the scales' validity and reliability.

Demographic questions. The first portion of the survey included a researcher-developed demographic questionnaire. The demographic portion of the survey asked questions about gender, age, ethnicity, academic discipline, number of years teaching in the community college system, preparation to teach in diverse institutions, and highest level of education. Furthermore, in line with previous research on CQ, participants were asked to report the number of languages they speak, the number of times travelled outside of the United States, and whether or not they have participated in cultural diversity training at their place of work over the previous 2 years. For the purpose of this study, the list of academic disciplines was generated from the California Community Colleges Chancellor's Office TOP codes. Academic disciplines were then later grouped into nine broad academic categories for the purpose of analysis.

Cultural Intelligence Scale. Researchers have used a systematic process to develop and validate the CQS (Ang et al., 2007). To develop a meaningful measurement of CQ, the research team conducted a thorough analysis of the literature on cultural competencies and intelligence scales, drawing from seminal research in multiple fields, such as psychology, intercultural communication, education, and cross-cultural psychology (Bandura, 2002; Deci & Ryan, 1985; Gudykunst et al., 1988; Murdock, 1987; O'Neil & Abedi, 1996; Triandis, 1994). In addition, Ang et al. (2007) conducted interviews with eight global executives to identify issues related to cross-cultural interactions. The research team initially created a 53-item survey, measuring each of the four dimensions of CQ. A team of faculty members and international executives with global experience examined the scale for clarity, readability, and fidelity. The developers eventually reduced the scale to 10 items per dimension to help reduce user fatigue.

The CQS consists of four subscales, examining each of the four dimensions of CQ: metacognition, cognition, motivation, and behavior. Metacognition involves cultural awareness, strategic planning, and checking (Earley et al., 2006). Cognition refers to developing both a specific and general cultural knowledge of a system. Motivation refers to the desire and willingness to learn and adapt to new cultural systems. Behavior is the ability to recognize the skills that are appropriate and necessary to achieve desired goals.

Once the initial scale was created, the research team embarked on a five-study journey, narrowing the CQS from 40 to 20 items with "low item-total

correlations, high residuals, and low factor loadings" (Ng et al., 2012, p. 25). Following the initial experiment, the researchers conducted four additional studies to assess and confirm the scales' four-factor structure, temporal stability, cultural equivalence, and validity of the scale with self and peer ratings. In other words, the scale proved to be consistent across time of ratings and in different cultures, and it demonstrated similar results for self and peer ratings. The researchers tested the CQS with different samples (students vs. business executives) in different countries (such as the United States and Singapore) and from different perspectives (self vs. peer ratings). The authors note that the "studies have demonstrated that the 20-item CQS possesses good psychometric properties across samples, time, countries, and methods" (Ng et al., 2012, p. 25). Psychometric properties generally refer to test–retest reliability, self versus peer report, and validity tests. Overall, the scale reliabilities for each item are as follows: Metacognitive CQ, $\alpha = 0.71$; Cognitive CQ, $\alpha = 0.85$; Motivational CQ, $\alpha = 0.75$; and Behavioral CQ, $\alpha = 0.83$ (Van Dyne et al., 2008). The next section explores discriminant and predictive validity in more detail.

Van Dyne et al. (2008) tested the discriminant and predictive validity of CQ. Discriminant validity tests whether concepts or measurement scales truly examine unrelated items (Campbell & Fiske, 1959). In other words, when researchers examine CQ and emotional intelligence (EQ), are the measurement tools really measuring two different phenomena? To illustrate, researchers identified CQ as distinct from "cognitive ability, EQ, cultural judgment and decision making, interactional adjustment, and mental well-being" using two

separate data sets of 251 and 249 respondents (Van Dyne et al., 2008, p. 33), which supports discriminate validity.

Several studies have found similar results supporting the discriminant validity of CQ. Using confirmatory factor analysis, Moon (2010) found that individuals reported CQ and EQ as distinct forms of intelligence. A separate study assessing the discriminant validity of different forms of intelligence compared EQ, social intelligence, and CQ and found all three types of intelligence to be correlated but distinct (Crowne, 2009). Discriminant validity identifies which variables correlate highly with one another but are distinct variables in the data.

Research demonstrates that CQ is a valid predictor of cultural decision making, interactional adjustment, and mental well-being (Van Dyne et al., 2008). Predictive validity tests whether the scores on one scale or measurement can predict the scores on another scale or measurement (Cronbach & Meehl, 1955). Specifically, Van Dyne et al. (2008) hypothesized that cognitive CQ and metacognitive CQ would predict cultural judgment and decision making and that behavioral and motivational CQ would predict interactional adjustment and mental well-being. The researchers reported that metacognitive CQ and cognitive CQ "increased explained variance in cultural judgment and decision-making by 4%; motivational CQ and behavior CQ increased explained variance in adjustment by 3%; and motivation CQ and behaviors CQ increased explained variance in mental well-being by 6%" (Van Dyne et al., 2008). Overall, researchers systematically developed a valid and reliable measure of CQ.

Rahim's Organizational Conflict Inventory II. Rahim's (1983, 1990a) model of conflict styles was used for this study because the conceptualization of conflict is well attuned with cultural differences, such as individualism and collectivism (Ting-Toomey et al., 2000). Rahim's model was adapted from Blake and Mouton's (1964a, 1964b, 1970) five conflict management styles. Rahim (1986) attempted to distinguish his model from previous versions by stressing that the five conflict styles can be differentiated based on concern for self and concern for other. The ROCI-II has been widely used in business and industry, as well as applied to educational contexts with students, faculty, and administrators (Kantek & Gezer, 2009; Kimencu, 2011).

The ROCI-II consists of 28 items designed to measure obliging, dominating, avoiding, integrating, and compromising conflict behaviors. The integrating style of conflict management is based on high concern for self and high concern for other (Rahim, 1983). This approach to conflict attempts to achieve mutually satisfying outcomes. The obliging style of conflict management consists of high concern for others and low concern for self—this approach is considered very accommodating. The dominating style of conflict management consists of high concern for self and low concern for other—this is a competitive, winner takes all approach to conflict. The avoiding style of conflict consists of the physical and emotional evasion of topics, situations, and people that evoke conflict. The compromising style of conflict management consists of medium concern for self and medium concern for other.

The five items on the ROCI-II rate responses along a 5-point Likert scale. The ROCI-II was narrowed down to 28 items from an original list of 35 items, based on a factor analysis of responses from 1,219 managers from the United States (Rahim, 1990a). In 2001, researchers updated the scale by rewording individual items to reduce social desirability response bias (Rahim, 2010).

A summary of eight studies using the ROCI-II reviewed the scales' external validity, internal reliability, and stability over time (Weider-Hatfield, 1988). Specifically, internal reliability tests demonstrate a Cronbach's alpha range from .61 for compromising to .81 for avoiding, and integrating, dominating, and obliging all averaging .71 or higher (Weider-Hatfield, 1988). Although the reliability for compromising is low, scholars argue that the ROCI-II is still the best conflict scale available (Bartlett, 2009). Test–retest correlations were $\alpha = .83$ for integrating; $\alpha = .81$ for obliging; $\alpha = .76$ for dominating; $\alpha = .79$ for avoiding; and $\alpha = .60$ for compromising (Rahim, 1983). Thus, test–retest correlations showed good reliability for all items except compromise.

Thornton (1989) found that the ROCI-II reliability ranged from .72 to .77. The test–retest reliability has shown to be higher than other conflict instruments, such as the Thomas–Kilman Mode Instrument (Womack, 1988). Evaluations of the ROCI-II demonstrate that in comparison to other conflict instruments, it shows low social desirability, which means that individuals do not feel a need to artificially rate their responses to be viewed favorably by others (Ben-Yoav & Banai, 1992; Paulshus, 1991; Rahim, 2000; Womack, 1988). Overall, the ROCI-

II has been effectively used to collect self-report data on conflict management styles in higher education academic settings (Kimencu, 2011).

Human subjects. All research contains an element of risk to the human participants. This study followed the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979) to provide the ethical protection of human subjects. To protect the participants of this study, a variety of safeguards were put into place. First, this study was approved by the Institutional Review Board process at CSUF and at all four participating community colleges. Second, all participants were provided with a clear description of the purpose of the study as well as the opportunity to provide their informed consent at the beginning of the survey (see Appendix D). Third, all responses were kept anonymous. Fourth, all participating colleges were given an alias for reporting purposes, and unique descriptive features were not included in the study.

Data Analysis and Interpretation

To explore the relationship between CQ and conflict management styles, the 20-item CQS (Ang et al., 2007) and the 28-item ROCI–II (Rahim, 1983, 2010) were used. This next section provides an overview of the data analysis procedures, procedures to ensure reliability and validity, and the role of the researcher.

Data analysis. The survey data for this study was collected through email using a data collection system, Qualtrics. To ensure content validity of the instrument, a pretest was administrated to 10 doctoral students enrolled in an

educational leadership doctoral program. Once reliability of the survey instrument had been determined, participant responses were collected and recorded using Qualtrics. The data was transferred from Qualtrics to SPSS, a data analysis software, by the researcher.

To ensure the accuracy of the data, the data was checked for errors or missing data following Creswell's (2008) guidelines. First, Qualtrics identified incomplete survey responses. Second, once the data was uploaded to SPSS the data was cleaned by visually checking the data for responses outside of the possible range of answers. Third, SPSS was used to identify maximum, minimum, mean, and standard deviation to help identify irregularities. Different statistical procedures were used depending on the research question (see Table 2).

For the first research question, "What demographic characteristics predict increased levels of cultural intelligence in full-time community college faculty?" descriptive statistics was used to "identify general tendencies in the data (mean, mode, median), [and] the spread of scores (variance, standard deviation, and range)" (Creswell, 2008, p. 190). In addition, *t*-tests were used to compare the mean in this study to that of 10 other published studies on CQ in order to establish a baseline for interpreting scores. Faculty characteristics included gender, age, ethnicity, years teaching, degree level, academic discipline, participation in diversity training during the previous 2 years, number of languages spoken, preparation to engage diverse students, and number of times travelled outside of the United States. For the purpose of analysis, academic

disciplines were organize into nine categories, including liberal arts (American sign language, Chinese, communication studies/speech, English, English as a second language, French, reading Spanish, speech language pathology, and library science); social science (anthropology, economics, history, philosophy, political science, psychology, and sociology); fine arts (art and design, dance, film, journalism, music, photography, radio, television, theater arts); health science (culinary arts, dental assisting, nursing, health occupations, pharmacy technician, physical therapy); STEM (anatomy and physiology, astronomy, biology, chemistry, engineering, geography, geology, mathematics, physics); Business (accounting, business administration, business communication technology; computer information science, law, real estate); counseling; education (education, education technology, child development, health education, physical education); and other disciplines.

For Research Question 2, "What demographic characteristics predict the five conflict management styles in full-time community college faculty?," multiple linear regression was used to determine if certain demographic characteristics predicted an increase in the four factors of CQ. For Research Question 3, "How do the four factors of cultural intelligence predict faculty members' preferred style of conflict management?" multiple regression was used to explore the relationship between multiple components of CQ (independent variable), including metacognitive, cognitive, motivational, and behavioral CQ, and multiple styles of conflict management (dependent variable), including domineering, compromising, avoiding, integrating, and obliging . Specifically, hierarchical

multiple regression was used to determine the strength and direction of the relationship between CQ and conflict management styles. CQ was considered the independent variable and conflict management styles the dependent variable because previous research has established that different cultural and ethnic environments shape norms and scripts for appropriate conflict behavior (Ting-Toomey et al., 2000).

Table 2

Research Questions and Statistical Procedures

Research question	Statistical procedure
RQ1: What demographic characteristics contribute to increased levels of CQ in full-time community college faculty?	Descriptive statistics, *t*-test, and multiple regression
RQ2: What demographic characteristics predict the five conflict management styles in full-time community college faculty?	Descriptive statistics and multiple regression
RQ3: How do the four factors of CQ predict the five styles conflict management in community college faculty?	Hierarchical multiple regression

Role of the researcher. Ryan (2006) identifies several guidelines for the postpositivist researcher. First, the role of the researcher is a "learning role rather than a testing one" (p. 18). Second, postpositivist researchers do not emphasize

an overall truth, rather they place on emphasis on truth and flexibility in interpretation. Third, problem setting can be as important as problem solving; rather than focusing on answers, "coming up with the right questions" is vital (Ryan, 2006, p. 19). Fourth, postpositivist researchers must know and critically reflect on their own epistemology, or their personal implicit theories about life, prior to and during the study.

For this study, several personal factors influenced my role as the researcher. First, my educational background is in speech communication, with a strong emphasis in intercultural communication. I have written courses in intercultural communication for my college, as well as helped to develop curriculum materials for other colleges. One of the fundamental aims of the intercultural communication field is to help individuals increase their cultural competence. As such, I value the study of intercultural communication and believe that developing personal knowledge of factors related to culture and communication can improve the quality of relationships. A second important factor is that I am a certified conflict mediator, and I have served as a volunteer mediator for local courts and communities. As such, I have experienced firsthand that cultural diversity can at times contribute to the development of conflict. Third, I am a faculty member working at community college that has a diverse population. Before I secured my full-time position, I taught at five different community colleges in the greater Southern California region. The experience was interesting because each of the colleges I taught at had a very different ethnic makeup of the student population. Based on the relationships I

have built with students over the years, I know from anecdotal information that many students feel they are the victims of prejudice in the classroom—which for me creates a bias because I think not all faculty have high levels of CQ. Fourth, I recently became a certified CQ Trainer. This experience has provided me with in-depth knowledge of the CQS. Through these experiences and my current position, I have witnessed the personal benefits and challenges of working in a culturally diverse setting. As the researcher, I see my role as a learner— I am trying to expand my personal knowledge of factors related to CQ and conflict in culturally diverse education settings, and I hope this knowledge will have broader application for higher education.

Chapter Summary

This chapter provided an overview of the research design and methodology for the examination of the impact of CQ on community college faculty conflict management style preferences. As the demographics of student populations continue to change, there will be an increasing demand for faculty members with the CQ to effectively engage students. Although colleges remain committed to hiring diverse faculty, this study addresses the fundamental problem that many faculty in higher education lack the skill set necessary to engage culturally diverse student populations. Using a postpositivist framework, this chapter provided an overview of the purpose of the study, and an overview of the proposed setting, sample, data collection, data analysis, and role of the researcher.

CHAPTER 4

FINDINGS

This chapter describes the research findings of this study. The purpose of this study was to understand the degree to which community college faculty members possess CQ and how CQ predicts conflict styles for faculty members who teach in diverse community colleges. Data were collected from full-time faculty members at four large community colleges in the greater Los Angeles area using an online survey. The study combined two surveys to measure faculty CQ levels and conflict management styles. First, this study used the 20-item CQS, which measures the four components of CQ, including motivational CQ, behavioral CQ, metacognitive CQ, and cognitive CQ (Van Dyne, Ang, & Koh, 2008). Second, the research included the use of Rahim's Organizational Conflict Inventory II, or ROCI-II (1983, 1990) to assess five conflict management styles: dominating, obliging, integrating, compromising, and avoiding. Descriptive statistics and multiple regressions were used to answer the following research questions and each sub-question:

1. What demographic characteristics predict increased levels of cultural intelligence in full-time community college faculty?
    a. Which faculty characteristics predict increased metacognitive CQ?
    b. Which faculty characteristics predict increased cognitive CQ?

c. Which faculty characteristics predict increased motivational CQ?

d. Which faculty characteristics predict increased behavioral CQ?

2. What demographic characteristics predict the five conflict management styles in full-time community college faculty?

   a. Which faculty characteristics predict the integrating conflict management style?

   b. Which faculty characteristics predict the dominating conflict management style?

   c. Which faculty characteristics predict the obliging conflict management style?

   d. Which faculty characteristics predict the avoiding conflict management style?

   e. Which faculty characteristics predict the compromising conflict management style?

3. How do the four factors of cultural intelligence predict faculty members' preferred style of conflict management?

   a. How do the four factors of CQ predict the integrating style of conflict management?

   b. How do the four factors of CQ predict the dominating style of conflict management?

   c. How do the four factors of CQ predict the obliging style of conflict management?

d. How do the four factors of CQ predict the avoiding style of conflict management?
e. How do the four factors of CQ predict the compromising style of conflict management?

This chapter begins with a description of the demographics of the sample population. The means, standard deviations, and reliability scores for the independent and dependent variables are reported. Next, the chapter presents the data analysis for each research question.

Demographics

Email invitations were extended to 800 full-time faculty members at four community colleges in Southern California. This study included responses from 317 (39.6% response rate) full-time community college faculty members from the Southern California region. Of the usable responses, 188 participants were female (61.0%), and 117 were male (38.0%), with three declining to state (1.0%). Statewide, California community college faculty are 54% female, so the sample in this study is not representative of the broader state faculty population. Ages ranged from 25 to greater than 75; 30 (9.7%) were 25 to 34 years old, 78 (25.3%) were 35 to 44 years old, 84 (27.3%) were 45 to 54 years old, 99 (32.1%) were 55 to 64 years old, 16 (5.2%) were 65 to 74 years old, and one individual (0.3%) reported 75 or older. Table 3 presents the complete demographics of the participants.

Participants' ethnicities were as follows: Asian or Pacific Islander, 35 (11.4%); Black or African American, nine (2.9%); Hispanic or Latino, 39 (12.7%);

Native American or American Indian, five (1.6%); White, 188 (61.0%); multiethnic, 21 (6.8%); other, 11 (3.6%). The participants' ethnic groups are similar to those as reported at the California Community College state level for full-time faculty: Black or African Americans, 5.8%; Native American or American Indians, 0.9%; Asian, 8.75%; Hispanic or Latino, 13.44%; multiethnic, 0.82%; Pacific Islander, 0.56%; unknown, 5%; and White, non-Hispanic, 64.69% (California Community College Data Mart, 2012).

In terms of language fluency, 208 (68.2%) reported speaking one language, 79 (25.9%) spoke two languages, 15 (4.9%) spoke three languages, and three (1.0%) spoke four languages. Participants reported various international travel experiences, with five (1.7%) having never traveled outside the United States, 127 (41.9%) having travelled outside the United States between one and five times, 69 (22.8%) having travelled outside the United States between six and 10 times, and 102 (33.7%) having travelled outside the United States more than 10 times.

The highest degree of education reported was as follows: Associate degree, three (1.0%); Bachelor's degree, 10 (3.2%); Master's degree, 215 (69.8%); Doctorate degree, 76 (24.7%); Professional degree, four (1.3%). Participants in the study represented 57 different academic disciplines, teaching in the following academic areas: 74 taught in liberal arts (23%), 38 taught in social science (12%), 28 taught in fine arts (12%), 30 taught in health science (10%), 53 taught in STEM (18%), 24 taught in business (7%), 25 taught in counseling (8%), 19 taught in education (6%). In terms of years of service in the

community college system, 35 participants (11.5%) taught 5 years or less; 50 (16.4%) taught between 6 and 10 years; 87 (28.6%) taught between 11 and 15 years; 48 (15.7%) taught between 16 and 20 years; and 85 (27.9%) taught more than 20 years.

When asked specifically about the preceding 2 years, 197 participants (65%) reported having received no cultural diversity training at their institution, and 108 participants (35%) reported having received some form of cultural diversity training. In response to the question "To what extent do you agree with the following statement: I feel well prepared to teach/work in a racially/ethnically diverse environment," 116 (38.0%) strongly agreed, 102 (33.4%) agreed, 35 (11.5%) somewhat agreed, 10 (3.3%) neither agreed nor disagreed, five (1.6%) somewhat disagreed, four (1.3%) disagreed, and 33 (10.8%) strongly disagreed.

Table 3

Community College Full-time Faculty Participant Demographics (N = 317).

Variable	*N*	%
Gender		
Male	117	38.0
Female	188	61.0
Decline to state	3	1.0
Age		
25-34 years	30	9.7
35-44 years	78	25.3
45-54 years	84	27.3
55-64 years	99	32.1
65-74 years	16	5.2
75 or greater	1	0.3
Ethnicity		
Asian or Pacific Islander	35	11.4
Black or African American	9	2.9
Hispanic or Latino	39	12.7
Native American/ American Indian	5	1.6
White	188	61.0
Multiethnic	21	6.8
Other	11	3.6
Number of languages spoken		
One language	208	68.2
Two languages	79	25.9
Three languages	15	4.9
Four languages	3	1.0

Table 3 continued

Community College Full-time Faculty Participant Demographics (N = 317)

Variable	*N*	%
Number of trips outside of U.S.		
Never	5	1.7
Between 1 and 5 times	127	41.9
Between 6 and 10 times	69	22.8
More than 10 times	102	33.7
Highest degree of education		
Associate degree	3	1.0
Bachelor's degree	10	3.2
Master's degree	215	79.8
Doctorate degree	76	24.7
Professional degree	4	1.3
Number of years teaching in community college		
5 years or less	35	11.5
6-10 years	50	16.4
11-15 years	87	28.6
16-20 years	48	15.7
More than 20 years	85	27.9
Cultural diversity training in last 2 years		
Yes	197	65.0
No	108	35.0
Academic discipline		
Business	24	7.0
Counseling	25	8.0
Education	19	6.0
Fine arts	28	10.0
Liberal arts	74	23.0
Social science	38	12.0

Table 3 continued

Community College Full-time Faculty Participant Demographics (N = 317)

Variable	N	%
Health science	30	10.0
STEM	53	18.0

Assumptions Testing

According to Morgan, Leech, Gloeckner, and Barrett (2011), "assumptions explain when it is and isn't reasonable to perform a specific statistical test" (p. 55). When using multiple regression, researchers suggest conducting initial analyses to test the assumptions of normality, linearity, reliability, and homoscedasticity of the data (Osborne & Waters, 2002).

Normality

Regression models assume a normal distribution of the variables (Osborne & Waters, 2002). In order to check for normality, a visual inspection of the histograms was conducted, revealing normality for all four factors of CQ and all five conflict styles. Furthermore, the skewness for each of the four factors of CQ and all five conflict styles was less than ±1.0, indicating approximate normality (Morgan, Leech, & Barrett, 2008). Furthermore, a visual inspection of Q–Q plots showed normal distribution for the four factors of CQ.

Outliers

A visual examination of *z* scores for the four factors of CQ and the five conflict styles revealed four possible outliers greater than ± 3.29; nonetheless, it is common for a few outliers to emerge from large samples and does not make a

"substantive difference in the analysis" (Tabachnick & Fidell, 2010, p. 80). Furthermore, a box-and-whiskers plot was used to examine the range of scores for the four factors of CQ based. A visual examination of the plot revealed two possible outliers under motivational CQ, four possible outliers for metacognitive CQ, no outliers for cognition CQ, and one possible outlier for behavioral CQ.

Linearity

Regression models assume that independent and dependent variables are linear in nature (Osborne & Waters, 2002). In order to examine the linearity of the variables, a visual inspection of scatter plots was conducted. There was weak linearity between all four factors of CQ and dominating and avoiding conflict styles. There was a weak relationship between motivational CQ and the obliging conflict style. Linearity existed between the four factors of CQ and the integrating and compromising styles of conflict management. The assumption of linearity of the variables was supported

Reliability

To assess whether the four factors of the CQS formed a reliable scale, Cronbach's alpha was computed for each factor. The alpha for the four factors of CQ was as follows: metacognition was .84; cognition was .89; motivation was .85; and behavioral was .90. The scores indicate that all four subscales have good internal consistency. To assess whether the five factors of the ROCI-II formed a reliable scale, Cronbach's alpha was computed for each factor. The alpha for the five factors of conflict was as follows: integrating was .83; obliging

was .73; avoiding was .77; compromising was .83; and dominating was .85. The scores indicate that all five subscales have good internal consistency.

Homoscedasticity

The assumption of homoscedasticity is associated with normality. A visual inspection of the regression standardized residual for all demographic variables and all four factors of CQ demonstrated normal distribution of the variables. A visual inspection of the regression standardized residuals for all four factors of CQ and all five conflict styles demonstrated normal distribution of the variables.

First Research Question

The first research question asked what faculty characteristics predict increased levels of CQ. This question consisted of four subquestions: What faculty characteristics predict increased metacognitive CQ? What faculty characteristics predict increased cognitive CQ? What faculty characteristics predict increased motivational CQ? What faculty characteristics predict increased behavioral CQ? To answer these questions, participants completed a survey consisting of demographic questions and the CQS, and the data were analyzed to see what faculty characteristics predict increased levels of the four factors of CQ.

Independent and Dependent Variables

The independent variables for this question include the demographic variables of the participants. The demographic variables for this question include gender, ethnicity, age of participants, years teaching in the community college system, academic discipline, number of times travelled outside of the United

States, number of languages spoken, and participation in diversity training over the previous 2 years. The dependent variables include the four factors of CQ, (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ).

Descriptive Statistics

I ran descriptive statistics to determine community college faculty (*N* = 294) scores on the four factors of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ; see Table 4). The mean score for metacognitive CQ was 5.74, with a standard deviation of 0.89. The mean score for motivational CQ was 5.76, with a standard deviation of 0.94. The mean score for cognitive CQ was 4.47, with a standard deviation of 1.21. The mean score for behavioral CQ was 5.098, with a standard deviation of 1.18. The faculty members in this study ranked from highest to lowest on the four factors of CQ as follows: motivational CQ, metacognitive CQ, behavioral CQ, and cognitive CQ.

Table 4

Faculty (N = 274) Cultural Intelligence Means and Standard Deviation

Variable	*M*	*SD*
Metacognitive CQ	5.74	0.88
Cognitive CQ	4.47	1.21
Motivational CQ	5.76	0.94
Behavioral CQ	5.10	1.18

A one-sample *t* test was conducted on the four factors of CQ to evaluate whether their mean was significantly different from the mean retrieved from nine published research studies on CQ (Ang et al, 2007; Flaherty, 2008; Keung, 2011; Kim, Kirkman, & Chen, 2008; Oolders, Chernyshenkio, & Stark, 2008; Shannon & Begley 2008; Shokef & Erez, 2008; Tarique & Takeuchi, 2008; Tay, Westman, Chia, 2008). Community college faculty scored significantly higher on each of the four factors of CQ than the set of participants in the nine other studies (metacognitive CQ, $t(293) = 16.108$, $p < .001$; cognitive CQ, $t(293) = 7.846$, $p < .001$; motivational CQ, $t(293) = 11.854$, $p < .001$; and behavioral CQ, $t(293) = 7.823$, $p < .001$.

Faculty Characteristics and Motivational CQ

A multiple regression was conducted to investigate how faculty characteristics predict motivational CQ (see Table 6). Faculty characteristics included gender, age, years teaching, degree level, academic discipline, participation in diversity training during the previous 2 years, number of languages spoken, preparation to teach culturally diverse students, and number of times travelled outside of the United States.

The combination of demographic variables to predict faculty motivational CQ was statistically significant, $F(25, 275) = 2.467$, $p \leq .001$. Nineteen percent of the variance in motivational CQ is accounted for by the combination of demographic variables (gender, age, years teaching, degree level, academic discipline, participation in diversity training during the previous 2 years, number of languages spoken, preparation to teach culturally diverse students, and

number of times travelled outside of the United States). Individually, number of times travelled outside of the United States ($p \leq .001$) and perception of preparation to teach in a culturally diverse environment ($p < .05$), were positively correlated with motivational CQ.

Faculty Characteristics and Metacognitive CQ

A multiple regression was conducted to investigate how faculty characteristics predict metacognitive CQ (see Table 6). Faculty characteristics included gender, age, years teaching, degree level, academic discipline, participation in diversity training during the previous 2 years, number of languages spoken, preparation to engage diverse students, number of times travelled outside of the United States, and perception of preparation to teach in a culturally diverse environment.

The combination of demographic variables and faculty characteristics to predict faculty metacognitive CQ was statistically significant, $F(25, 275) = 2.096$, $p < .005$. Seventeen percent of the variance in metacognitive CQ is accounted for by the combination of demographic variables and faculty characteristics. Teaching in STEM fields ($n = 53$) was inversely related to metacognitive CQ ($\beta = 0.195$, $p < .005$). Number of languages spoken was a significant predictor of metacognitive CQ ($\beta = 0.145$, $p = .030$).

Faculty Characteristics and Cognitive CQ

A multiple regression was conducted to investigate how faculty characteristics predict cognitive CQ (see Table 5). Faculty characteristics included gender, age, years teaching, degree level, academic discipline,

participation in diversity training during the previous 2 years, number of languages spoken, preparation to teach culturally diverse students, and number of times travelled outside of the United States.

The combination of demographic variables to predict faculty cognitive CQ was statistically significant, $F(25, 275) = 2.86$, $p \leq .001$. Twenty-one percent of the variance of cognitive CQ is accounted for by the combination of demographic variables (gender, age, years teaching, degree level, participation in diversity training during the previous 2 years, number of languages spoken, preparation to teach culturally diverse students, and number of times travelled outside of the United States). Individually, speaking more than one language ($p < .001$) and number of times travelled outside of the United States ($p \leq .001$) were significant predictors of cognitive CQ. Being a part of the business academic discipline ($n = 24$) was inversely related to cognitive CQ ($\beta = -0.154$, $p < = .05$).

Faculty Characteristics and Behavioral CQ

A multiple regression was conducted to investigate how faculty characteristics predict behavioral CQ. Faculty characteristics included gender, age, years teaching, degree level, academic discipline, participation in diversity training during the previous 2 years, number of languages spoken, preparation to teach culturally diverse students, and number of times travelled outside of the United States.

Table 5

Regression Coefficients at Final Step[a] Predicting Four Factors of Cultural Intelligence (N = 291)

Variable	MO	ME	CO	BE
Demographic variables				
Female	.078	.059	.111	-.087
Ethnicity				
Asian	-.055	.095	.085	.039
Black/African American	.109	.140	.141	.023
Latino/Hispanic	-.071	.003	.072	-.119
Native American	-.077	-.015	.135	.032
White	-.186	-.035	.110	-.195
Multiethnic	-.002	.066	.123	.001
Age	-.130	.053	.075	-.119
Degree				
Associate	.029	-.147	-.085	-.069
Bachelor	-.098	-.144	-.132	-.076
Master	.049	-.071	-.369	.097
Doctorate/Professional	-.037	.034	.496	.054
Discipline				
Business	-.044	-.036	-.154*	.038
CTE	-.001	.026	.031	.058
Education	-.051	.-123*	-.073	-.016
Fine arts	-.043	-.097	-.028	-.071
Health science	-.075	-.038	-.079	-.142*
Liberal arts	.054	.111	.104	.133*
Social science	-.042	.039	-.810	-.100
STEM	-.071	-.195**	-.073	-.105
Being bilingual	.064	.145*	.219**	-.015
Travel outside U.S.	.277***	.031	.183**	.188**
R^2	.189	.165	.213	.171
Final *F*	2.467***	2.096**	2.863***	2.194**

MO = Motivational CQ; ME = Metacognition; CO = Cognitive CQ; BE = Behavioral CQ

The combination of demographic variables to predict faculty (N = 294) behavioral CQ was statistically significant, $F(25, 275) = 2.194$, $p < .001$. Seventeen percent of the variance in behavioral CQ is accounted for by the combination of demographic variables (gender, age, years teaching, degree level, academic discipline, participation in diversity training during the previous 2 years, number of languages spoken, preparation to engage diverse students, and number of times travelled outside of the United States). Individually, number of times travelled outside of the United States ($\beta = 0.188$, $p < .005$), and belonging to the liberal arts (n = 74) academic discipline ($\beta = 0.133$, $p < .05$) were positively correlated with behavioral CQ. Belonging to the health science academic discipline (n = 30) was inversely correlated to behavioral CQ ($\beta = -0.142$, $p < .05$).

Second Research Question

The second research question asked what faculty characteristics predict the five styles of conflict management (integrating, dominating, obliging, avoiding, and compromising).

This question consisted of five sub-questions: What faculty characteristics predict the integrating conflict management style? What faculty characteristics predict the dominating conflict management style? What faculty characteristics predict the obliging conflict management style? What faculty characteristics predict the avoiding conflict management style? What faculty characteristics predict the compromising conflict management style? To answer these questions, participants completed a survey consisting of demographic questions

and the ROCI-II, and the data were analyzed to see what faculty characteristics predict increased levels of the five conflict management styles.

Independent and Dependent Variables

The independent variables for this question include the demographic variables of the participants. The demographic variables for this question include gender, ethnicity, age of participants, years teaching in the community college system, and academic discipline. The dependent variables include the five conflict management styles (integrating, dominating, obliging, avoiding, and compromising).

Descriptive Statistics

I ran descriptive statistics to determine community college faculty scores on the five styles of conflict management (integrating, dominating, obliging, avoiding, and compromising; see Table 6). The mean score for integrating was 5.8 with a standard deviation of 0.71. The mean score for dominating was 3.66 with a standard deviation of 1.23. The mean score for obliging was 4.5 with a standard deviation of 0.80. The mean score for avoiding was 4.0 with a standard deviation of 1.1. The mean score for compromising was 4.88 with a standard deviation of 1.03.

Table 6

Summary of Community College Faculty (N = 277) Means and Standard Deviations of Conflict Variables

Variable	*M*	*SD*
Compromising	4.88	1.03
Avoiding	4.03	1.10
Integrating	5.83	0.71
Dominating	3.68	1.23
Obliging	4.52	0.80

Faculty Characteristics and Integrating

Multiple regression was conducted to investigate how faculty characteristics predict the integrating conflict management style. Faculty characteristics included gender, ethnicity, years teaching, degree level, and academic discipline (see Table 7).

The combination of demographic variables to predict faculty integrating conflict management style was statistically significant, $F(25, 248) = 1.052$, $p \leq .001$. Being male ($\beta = -0.140$, $p < .05$) was the only variable significantly inversely related to with an integrating conflict management style.

Faculty Characteristics and Dominating

Multiple regression was conducted to investigate how faculty characteristics predict the dominating conflict management style. Faculty characteristics included gender, age, years teaching, degree level, and academic discipline.

The combination of demographic variables to predict the dominating conflict management style was statistically significant, $F(25, 248) = .1.910$, $p < .05$. The combination of demographic variables accounted for 15.7% in the variance of the dominating conflict management style. Individually, being male ($\beta = 0.176$, $p < .05$), working in the liberal arts ($n = 74$;$\beta = 0.150$, $p < .05$), and working in the business division ($n = 24$; $\beta = 0.166$, $p < .05$) were significant predictors of a dominating conflict style.

Faculty Characteristics and Obliging

A multiple regression was conducted to investigate how faculty characteristics predict the obliging conflict management style. Faculty characteristics included gender, ethnicity, years teaching, degree level, and academic discipline.

The combination of demographic variables to predict the obliging conflict management style was not statistically significant, $F(25, 248) = 1.016$, $p = .446$. However, teaching in the STEM academic disciplines ($n = 53$) was significantly inversely related with an obliging conflict management style ($\beta = -0.179$, $p < .05$).

Faculty Characteristics and Avoiding

A multiple regression was conducted to investigate how faculty characteristics predict the avoiding conflict management style. Faculty characteristics included gender, ethnicity, years teaching, degree level, and academic discipline.

Table 7

Regression Coefficients at Final Step[a] Predicting Conflict Management Styles (N = 273)

Variable	CI	CD	CO	CA	CC
Demographic variables					
Female	-.140*	.176*	-.041	-.169**	-.118
Ethnicity					
Asian	.117	.018	.111	.147	.103
Black/African American	.108	-.106	-.019	.023	.109
Latino/Hispanic	.140	-.191	-.056	.019	.092
Native American	.000	-.051	-.165*	.018	-.064
White	.159	-.213	-.019	.058	.098
Multiethnic	.169	-.082	-.023	-.113	.053
Years teaching					
6-10 Years	.100	-.136	.105	.023	.189*
10-15 Years	.136	-.058	.044	-.140	.104
11-15 Years	-.021	-.042	.059	.126	.084
16-20 Years	-.010	-.076	.038	.016	.037
More than 20 Years	.063	-.105	.098	.102	.136
Academic discipline					
Liberal Arts	.026	.150*	-.019	.096	.040
Health Science	.044	.025	.033	.025	.030
STEM	-.125	.139	-.179*	.002	-.151*
Social Science	-.072	.119	.051	.125	.028
Fine Arts	.048	.027	.000	-.048	.079
Business	-.105	.166*	.033	.008	.024
CTE	.035	.067	.007	.023	-.041
Counseling	.039	-.081	-.020	-.188**	.003
Education	.023	.121	.020	-.013	.013
Final R^2	.096	.157	.093	.171	.098
Final *F*	1.052	1.852*	1.016	2.051**	1.084

*significant at $p < .05$. **significant at $p < .01$ ***significant at $p \leq .001$.

CI = Integrating; CD = Dominating; CA = Avoiding; CO = Obliging; CC = Compromising

The combination of demographic variables to predict the avoiding conflict management style was statistically significant, $F(25, 248) = 2.051$, $p = .003$. The combination of demographic variables (gender, ethnicity, years teaching, degree level, and academic discipline) accounts for 17 percent of the variance of avoiding conflict management style. From the model, two items were inversely related to the avoiding conflict management style: Male ($\beta = -0.169$, $p < .05$) and counseling ($n = 25$) academic discipline ($\beta = -0.188$, $p < .05$).

Faculty Characteristics and Compromising

A multiple regression was conducted to investigate how faculty characteristics predict the compromising conflict management style. Faculty characteristics included gender, ethnicity, years teaching, degree level, and academic discipline.

The combination of demographic variables to predict the compromising conflict management style was not statistically significant, $F(25, 248) = 1.084$, $p = .362$. From this model, one item significantly predicted the compromising conflict management style. For the full-time faculty, teaching between 6 and 10 years ($n = 50$) was significantly related to an increase in the use of compromising conflict management style ($\beta = 0.169$, $p < .05$), and teaching in STEM ($n = 53$) was inversely related to the use of compromising conflict management style ($\beta = -0.151$, $p < .05$).

Third Research Question

The third research question asked how the four factors of CQ predict faculty members' style of conflict management. This consisted of five

subquestions: How do the four factors of CQ predict the integrating style of conflict management? How do the four factors of CQ predict the dominating style of conflict management? How do the four factors of CQ predict the obliging style of conflict management? How do the four factors of CQ predict the avoiding style of conflict management? How do the four factors of CQ predict the compromising style of conflict management? To answer these questions, participants completed the CQS and the ROCI-II.

For Research Question 3, the independent variables include the four factors of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ) as well as participant demographic variables (gender, ethnicity, and age). The dependent variables for this study include the five types of conflict management styles (obliging, avoiding, dominating, integrating, and compromising). The survey used a 7-point Likert scale to assess scores. The mean score for obliging was 4.5 with a standard deviation of 0.80. The mean score for avoiding was 4.0 with a standard deviation of 1.1. The mean score for integrating was 5.8 with a standard deviation of 0.71. The mean score for dominating was 3.66 with a standard deviation of 1.23. The mean score for compromising was 4.88 with a standard deviation of 1.03.

Cultural Intelligence and Integrating

A hierarchical multiple regression analysis was used to determine the extent to which the four factors of CQ (metacognitive, cognitive, motivational, behavioral) predict the integrating conflict management style, while controlling for age, gender, and ethnicity. Table 8 displays the correlations among the

predictor variables (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ) and the criterion variable (integrating; see Table 8).

The combination of variables, metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ significantly predicted integrating conflict management style, $F(4, 272) = 14.15$, $p \leq .0001$. Seventeen percent of variance of the integrating conflict style is accounted for by the combination of the four factors of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). Integrating conflict style is significantly predicted by metacognitive CQ ($\beta = -0.222$, $p < .05$), and motivational CQ ($\beta = 0.147$, $p < .05$). Behavioral CQ was approaching statistical significance ($\beta = 0.122$, $p = .056$). As compared with the other factors of CQ, cognitive CQ did not significantly predict integrating style of conflict.

The combination of variables to predict integrating conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ was significant when controlling for faculty demographics variables of gender, age, and ethnicity, $F(12, 261) = 5.866$, $p \leq .001$. When controlling for faculty demographics of gender, age, and ethnicity, the four factors of CQ predict 21% of the variance of the integrating conflict management style. Integrating conflict style is significantly predicted by metacognitive CQ ($\beta = 0.222$, $p < .05$), motivational CQ ($\beta = 0.147$, $p < .05$), and gender ($\beta = -0.166$, $p < .05$).

Table 8

Regression Coefficients at Final Step[a] Predicting Conflict Management Styles (N=265)

Variable	CI	CD	CO	CA	CC
Demographic variables					
Female	-.166*	.221**	-.030	-.133*	-.104
Ethnicity					
Asian	.034	.103	.071	.162	.019
Black/African American	.094	-.076	-.001	.007	.104
Latino/Hispanic	.064	-.101	-.080	.018	.026
Native American	-.030	-.019	.146	.062	-.076
White	.038	-.047	-.032	.138	.002
Multiethnic	.116	.029	-.027	-.082	.016
Age	.075	.035	.041	-.036	.070
R^2	.045	.078	.038	.060	.033
Cultural intelligence					
Metacognitive CQ	.222*	-.132	.135	.030	.119
Cognitive CQ	.015	.129	.052	-.034	.139
Motivational CQ	.147*	-.153*	.034	-.094	-.020
Behavioral CQ	.122	.194*	.012	-.036	.092
R^2 *Change*	.167	.037	.037	.073	.073
Final R^2	.212	.115	.075	.074	.106
Final *F*	5.866***	2.833***	1.768	1.738	2.581**

*significant at $p < .05$. **significant at $p < .01$ ***significant at $p \leq .001$.

CI = Integrating; CD = Dominating; CA = Avoiding; CO = Obliging; CC = Compromising

Cultural Intelligence and Dominating

A hierarchical multiple regression analysis was used to determine the extent to which the four factors of CQ (metacognitive, cognitive, motivational, behavioral) predict the dominating conflict management style.

The combination of variables to predict dominating conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ were significant, $F(4, 272) = 2.65$, $p < .035$. Four percent of the variance of the dominating conflict style is accounted for by the combination of the four factors of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). The dominating conflict style is significantly predicted by behavioral CQ ($\beta = 0.194$, $p < .05$), and motivational CQ ($\beta = -0.153$, $p < .05$). There is an inverse relationship between motivational CQ and the dominating style of conflict, as motivational CQ increases, dominating conflict style decreases ($t = -2.012$).

The combination of variables to predict dominating conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ was significant when controlling for faculty demographic variables of gender, age, and ethnicity, $F(12, 261) = 2.833$, $p = .001$. When controlling for faculty demographics of gender, age, and ethnicity, the four factors of CQ predicts 11.5% of the variance of the dominating conflict management style. When controlling for demographic variables, the dominating conflict style is significantly predicted by motivational CQ ($\beta = --0.153$, $p < .05$), behavioral CQ ($\beta = 0.194$, $p < .05$), and gender ($\beta = 0.234$, $p \leq .001$). Motivational CQ is inversely related to the

dominating style of conflict ($\beta = -0.153$, $p < .05$). Being male is positively related to the use of dominating conflict style ($\beta = 0.234$, $p \leq .001$).

Cultural Intelligence and Obliging

A hierarchical multiple regression analysis was used to determine the extent to which the four factors of CQ (metacognitive, cognitive, motivational, behavioral) to predict the obliging conflict management style.

The combination of variables to predict obliging conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ were significant, $F(4, 272) = 2.5$, $p < .05$. Four percent of the variance of the obliging conflict style is accounted for by the combination of the four factors of CQ (metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ). Note that none of the four factors of CQ individually predict obliging conflict style. These results do not indicate that metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ are not useful, rather that no specific individual predictor was evident due to possible overlap of the four factors of CQ or the five conflict management styles (Tabachnick & Fidell, 2007).

The combination of variables to predict obliging conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ was nearing significance when controlling for faculty demographics variables of gender, age, and ethnicity, $F(12, 261) = 1.768$, $p = .054$. When controlling for faculty demographics of gender, age, and ethnicity, the four factors of CQ predicted 3.3% of the variance of the obliging conflict management style.

Cultural Intelligence and Avoiding

A hierarchical multiple regression analysis was used to determine the extent to which the four factors of CQ (metacognitive, cognitive, motivational, behavioral) predict the avoiding conflict management style.

The combination of variables to predict the avoiding conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ were not statistically significant, $F(4, 272) = 1.432$, $p = .22$. None of the four factors of CQ predict avoiding conflict style when all four factors are included. Two percent of the variance in avoiding conflict style scores was explained by this model. These results do not indicate that metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ are not useful, rather that no specific individual predictor was evident due to possible overlap of the four factors of CQ, or because of overlap in the five conflict management styles (Tabachnick & Fidell, 2007).

The combination of variables to predict avoiding conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ was nearing significance when controlling for faculty demographics variables of gender, age, and ethnicity, $F(12, 261) = 1.738$, $p = .059$. When controlling for faculty demographics of gender, age, and ethnicity, the four factors of CQ predicts 7.4% of the variance of the avoiding conflict management style. When controlling for demographic variables, none of the four factors of CQ predicts the avoiding conflict style. Gender significantly predicts avoiding conflict style ($\beta = -0.127$, $p < .05$), indicating that males are more likely to use avoidance as a conflict behavior.

Cultural Intelligence and Compromising

A hierarchical multiple regression analysis was used to determine the extent to which the four factors of CQ (metacognitive, cognitive, motivational, behavioral) to predict the compromising conflict management style.

The combination of variables to predict compromising conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ were statistically significant, $F(4, 272) = 5.1$, $p = .001$. Six percent of the variance in compromising conflict style scores was explained by this model. None of the four factors of CQ was individually significantly related to the compromising style of conflict.

The combination of variables to predict compromising conflict style from metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ was significant when controlling for faculty demographics variables of gender, age, and ethnicity, $F(12, 261) = 2.581$, $p < .05$. When controlling for faculty demographics of gender, age, and ethnicity, the four factors of CQ predict 10.6% of the variance of the compromising conflict management style. None of the four factors of CQ were individually significantly related to the compromising style of conflict; however, the composite of the four factors significantly predicted the compromising conflict style.

Chapter Summary

Chapter 4 presented the results of the data analysis and reported findings for each research question. Descriptive statistics and multiple regression were used to analyze the data and answer the research questions set forth in this

study. The key findings from Research Question 1 indicate that full-time community college faculty have moderately high metacognitive CQ and motivational CQ, and moderate cognitive CQ and behavioral CQ. The key findings from Research Question 1 reveal that the number of languages spoken and number of times travelled outside of the United States were significant predictors of the four factors of CQ. However, the analysis also revealed that gender, age, ethnic group, years teaching, and participation in diversity training in the previous 2 years did not significantly predict CQ scores. The key findings from Research Question 2 indicate that faculty demographic characteristics were significant predictors of the integrating, dominating, and avoiding conflict management styles, but that they did not predict compromising and obliging styles. Furthermore, the results of Research Question 2 indicate that full-time community college faculty report a preference for the integrating conflict management style. The key findings from Research Question 3 indicate that when controlling for gender, age, and ethnicity, there is significant positive correlation between the four factors of CQ and three of the conflict styles. Metacognitive CQ and motivational CQ are positively correlated to an integrating conflict style. Motivational CQ is negatively correlated to dominating conflict style, while behavioral CQ is positively correlated to dominating conflict style. None of the four factors of CQ individually predicted avoiding, compromising, and obliging conflict style. However, the four factors of CQ in combination were significant in predicting a compromising conflict style. In Chapter 5,

interpretations of the key findings, as well as implications for theory and practice, will be discussed.

CHAPTER 5

DISCUSSION

Nationwide, community college student populations have become increasingly diverse, reflecting changes in the broader U.S. population. Scholars agree that increases in student diversity have resulted numerous benefits to colleges and students, including openness to diversity and increased self-confidence (Chang, Denson, Sáenz, & Misa, 2006) and intellectual engagement and development, including problem solving, critical thinking, and writing abilities (Gurin et al., 2002). Nonetheless, increases in the diversity of student populations have also been met with increased faculty–student conflict (Chang et al., 2004; Gurin, 2003; Marin, 2000; Pike & Kuh, 2006; Sidanius et al., 2008; Stephan & Vogt, 2004). It turns out that faculty members may lack the educational background, preparation, or ongoing training necessary to respond to the needs of diverse student populations.

Adding to the challenges facing educators, higher education is being called on to develop graduates with intercultural competence so that they may be competitive in the globalized 21st century (AACU, 2008, 2011). However, research demonstrates that college graduates in the 21st century lack the intercultural competence or knowledge, experience, and training to prepare for the global workplace (Clifford, 2004). If community colleges are to meet the objectives presented by the AACU, faculty need to be intelligent in more arenas

than just academics. Faculty must be flexible to adapt to the changing makeup of community college student populations.

Although student populations have become increasingly diverse, faculty populations do not match those of the students they serve (Murphy, 2014), largely because faculty populations have been slower to change. While students and faculty identify with their cultures to varying degrees, cultural patterns in the United States tend to adhere to European-American values (such as individualism and self-initiative) as reflected by the cultural background of the faculty. Faculty who lack knowledge of their students' cultural backgrounds, combined with insufficient cultural competence and conflict management skills, may alienate students as well as other faculty and administrators, increasing risk of student failure, employee turnover, and job dissatisfaction (Mahon, 2009; Runde & Flanagan, 2010). The fundamental problem addressed by this study is that community college faculty may not be prepared to engage culturally diverse student populations (Valentine et al., 2012). This problem may negatively affect students by increasing faculty–student conflicts and contributing to the student achievement gap.

The purpose of this study was to understand the degree to which community college faculty members possess CQ and how CQ affects conflict management styles of faculty who teach in culturally diverse institutions. This study proposed three research questions:

1. What community college faculty characteristics are associated with increased levels of the four factors of CQ?

2. What community college faculty characteristics are associated with the five styles of conflict management?
3. How do the four factors of CQ predict community college faculty preferred styles of conflict management when engaging culturally diverse students?

In order to address these questions, this study used a quantitative design to examine the relationship between levels of CQ and conflict management styles in full-time community college faculty. This study used the 20-item CQS, which measures the four components of CQ, including motivational CQ, behavioral CQ, metacognitive CQ, and cognitive CQ (Ang, Van Dyne, Koh, & Ng, 2004). The research also used ROCI-II to assess five conflict management styles: dominating, obliging, integrating, compromising, and avoiding. A demographic component of the survey collected information on gender, age, ethnicity, years teaching, academic discipline, languages spoken, travel experiences, diversity training, experiences with conflict, and attitude towards diversity in the classroom.

Interpretations

This section discusses the findings of each research question in consideration of the literature review presented in Chapter 2. Following the interpretations section, the next segment of the chapter discusses the limitations, and implications of each finding for policy, practice, theory, and future research.

Research Question 1

Summary of findings. Despite the recognized importance of cultural competence as a skill for effective engagement of culturally diverse student populations, little research has examined community college faculty members' cultural competence skills. In order to address this issue, the first research question examined full-time community college faculty CQ scores and what faculty demographic characteristics predict the four factors of CQ (metacognitive CQ, motivational CQ, cognitive CQ, and behavioral CQ). In comparison to nine other published research studies on CQ, the participants in this study had significantly higher scores on all four factors of CQ (Ang et al., 2007; Flaherty, 2008; Keung, 2011; Kim, Kirkman, Chen, 2008; Oolders, Chernyshenkio, & Stark, 2008; Shannon & Begley, 2008; Shokef & Erez, 2008; Tarique & Takeuchi, 2008; Tay, Westman, Chia, 2008). The findings in this study indicate that motivational CQ was the highest score, followed by metacognitive CQ, behavioral CQ, and cognitive CQ.

In terms of faculty characteristics that predict increased levels of the four factors of CQ, number of languages spoken, number of times travelled outside of the United States, perception of being prepared to teach in a culturally diverse institution, and academic disciplines were significant predictors of CQ. The analysis also revealed that gender, age, ethnic group, years teaching, and participation in diversity training programs over the previous 2 years did not significantly predict CQ scores. This next section provides a discussion of the

results of the four factors of CQ, followed by a discussion of the faculty characteristics that correlate with the four factors of CQ.

Interpretation. The full-time community college faculty that participated in this study demonstrated relatively high CQ scores as compared to nine other published studies on CQ (Ang et al., 2007; Flaherty, 2008; Keung, 2011; Kim, Kirkman, Chen, 2008; Oolders, Chernyshenkio, & Stark, 2008; Shannon & Begley 2008; Shokef & Erez, 2008; Tarique & Takeuchi, 2008; Tay, Westman, Chia, 2008). In order to create a benchmark for purposes of comparison, the mean scores of the faculty in this study were compared to the means of nine other research studies. The scores of the participants in this study are consistent with other research studies examining educators and CQ (Gohar, 2014; Keung, 2011; Petrović, 2011) that found that teachers and leaders in educational settings exhibit high levels of CQ. There are several possible explanations for the high scores. First, the participants in the current study sample were older and more highly educated compared to participants in the sample comparison group, with the majority of participants in this study possessing either a master's or doctoral degree. In the comparison groups, the majority of participants were undergraduate or graduate university students. The findings of the current study are consistent with the construct of CQ, which suggests that CQ is a flexible ability that can be improved by active participation in education, travel, international assignments, and intercultural experiences (Ang & Van Dyne, 2008).

Second, the participants in this study teach in colleges with very diverse student populations, where faculty and student demographics do not align. It is possible that the experience of teaching in a culturally diverse setting has contributed to the increase in the CQ of the community college faculty. Previous research has found that exposure to other cultures in work and education can increase overall CQ (Crowne, 2008). For example, Franklin-Craft (2010) found that university student affairs administrators who had frequent contact with culturally dissimilar people displayed high levels of CQ. By interacting with culturally diverse groups of students, the faculty experience ongoing exposure to different cultural values, beliefs, and behaviors, which in turn shapes faculty knowledge and understanding about different student populations.

Motivational CQ. As with numerous other published studies on CQ, motivational CQ was the highest score for the faculty in this study, followed by metacognitive CQ, behavioral CQ, and cognitive CQ (Ang et al., 2007; Flaherty, 2008; Keung, 2011; Kim, Kirkman, Chen, 2008; Oolders, Chernyshenkio, & Stark, 2008; Shannon & Begley 2008; Shokef & Erez, 2008; Tarique & Takeuchi, 2008; and Tay, Westman, Chia, 2008). These scores indicate that faculty members are motivated to engage with culturally diverse students and work through the challenges that these relationships can present. Motivational CQ is an integral element of the ability to be effective in cross-cultural educational settings, especially in relation to faculty–student interactions, because motivational CQ reflects the energy and effort to function appropriately in novel cultural settings (Ang, Van Dyne, & Tan, 2012). Previous research has found

that high motivational CQ in teachers is a predictor of improved instructional performance (Gohar, 2014). Gohar (2014) argues that high motivational CQ in teachers indicates that they are more likely to put forth effort and persist in their endeavor, thus enhancing teaching performance. Faculty who possess motivational CQ will have the drive to learn about cultures that they are not familiar with, consider cultural differences between different students, and embrace different pedagogies to promote the success of culturally diverse student populations.

Metacognitive CQ. Faculty metacognitive CQ was the second highest score, indicating that faculty are aware of the cultural dynamics of their interactions with students and checking their cultural assumptions. Metacognitive CQ is essential for faculty members to successfully transfer culture-based knowledge into application for student engagement, as well as instruction, and to reflect on practices that are appropriate for effectively engaging diverse student populations. Imai and Gelfand (2010) note that metacognitive CQ is necessary "when trying to adapt to new cultures, including how to plan learning about the new culture as well as evaluating and monitoring their own progress" (p. 3). Thus, faculty with high CQ may be able to adapt to the cultural backgrounds of their students, learning about their cultures while systematically evaluating their own growth.

Behavioral CQ. Behavioral CQ scores were the second lowest for the participants in this study. While it is important for educators to understand culturally diverse student populations on a cognitive and metacognitive level, and

to be motivated to engage these students, being able to behaviorally act on the knowledge and motivation in a manner that is culturally appropriate is key to effectively serving diverse student populations. The specific verbal and nonverbal components of behavioral CQ will not only influence faculty members' ability to build relationships with students but also be of critical importance for educators because students will evaluate faculty members based on their verbal and nonverbal behaviors (Evola, 2012).

Cognitive CQ. Cognitive CQ scores were the lowest of the four factors of CQ, suggesting that faculty may lack culture-specific knowledge about students' cultural backgrounds. Cognitive CQ was the lowest factor of CQ for the faculty in this study, which is consistent with other research studies on CQ that have found cognitive CQ to be the lowest scoring component (Ang et al., 2007; Flaherty, 2008; Keung, 2011; Kim, Kirkman, Chen, 2008; Oolders, Chernyshenkio, & Stark, 2008; Shannon & Begley 2008; Shokef & Erez, 2008; Tarique & Takeuchi, 2008; Tay, Westman, & Chia, 2008). For example, a study examining CQ using a sample of MBA students in the United States revealed that participants acknowledge the importance of cultural knowledge for their personal success but report lacking culture-specific information (Ahn & Ettner, 2013). It may be that cognitive CQ is the lowest of the four factors because it requires knowledge of multiple and specific cultural practices, values, norms, and beliefs. Although faculty can be expected to be experts in their academic disciplines, this does not mean that this expertise will translate into knowledge about the cultural backgrounds of their students. According to Ting-Toomey and Chung (2005), of

all the factors of cultural competence (knowledge, motivation, and skills), knowledge is the most important dynamic as it influences the other factors of competence. Thus, even though the college faculty members in this study demonstrate high levels of motivational and metacognitive CQ, without the corresponding knowledge of student cultural backgrounds to provide a foundation, faculty may lack the ability to transfer their motivation and strategy to appropriately and effectively engage students. Before drawing any conclusions, it is worth noting that even though behavioral CQ and cognitive CQ were the lowest scores for the participants in this studies, as compared to other studies, the scores in these areas are still high.

The analysis of faculty CQ scores indicates that motivational CQ received the highest scores, followed by metacognitive CQ, behavioral CQ, and cognitive CQ. Furthermore, the participants in this study reported higher CQ scores across the board, as compared to nine other published studies. Now that a benchmark for community college faculty CQ scores has been established, the next section examines faculty characteristics that predict increased CQ scores.

Language and travel. As with other studies on CQ, the number of languages spoken and the number of times travelled outside of the United States. were significant predictors of the four factors of CQ. In this study, speaking more than one language was a significant predictor of metacognitive CQ and motivational CQ. Number of times travelled outside of the United States was a significant predictor of cognitive CQ and behavioral CQ. This is consistent with previous research that found non-work-related international travel, study

abroad, international work experience and speaking more than one language all correlate with higher CQ scores (Ahn & Ettner, 2013; Crowne, 2008; Franklin-Craft, 2010; Shannon & Begley, 2008; Tarique & Takeuchi, 2008). Furthermore, this finding is in line with the framework of CQ that suggests it is a malleable ability that can be improved by active participation in education, travel, international assignments, and intercultural experiences (Ang & Van Dyne, 2008). A limitation of this study is that participants were not asked to identify the type of international travel they participated in, and results may vary depending on the purpose of the travel (business vs. pleasure), the duration (short vs. long-term assignment), and satisfaction with the overall experience (positive vs. negative).

Academic discipline. Faculty members' academic disciplines were a significant predictor of the four factors of CQ. Teaching in liberal arts (communication studies, English, English as a second language, modern languages, and reading) correlates with increases in behavioral CQ, while teaching in health science correlates with lower behavioral CQ. Teaching in STEM (science, technology, engineering, and math) and education were correlated with lower metacognitive CQ, and business was correlated with lower cognitive CQ. This is consistent with previous research on high school teachers that found academic discipline predicts CQ scores, specifically that social studies and language arts teachers have higher metacognitive, cognitive, motivational, and behavioral CQ than teachers who teach in STEM fields (Evola, 2012). That teaching in liberal arts was a significant predictor of behavioral CQ is not a

surprise; behavioral CQ is based on appropriate verbal and nonverbal behaviors and speech acts. Most of the academic disciplines within liberal arts are language based, with several of the fields including world languages, and previous research has established that speaking more than one language increases CQ levels (Shannon & Begley, 2008). Furthermore, an integral part of the communication studies curriculum is intercultural communication, and the behavioral component of CQ emerged from intercultural communication research (Gudykunst et al., 1988). Thus, the emphasis on verbal and nonverbal components in the liberal arts curriculum is likely the source of higher CQ score for faculty in these disciplines.

Health occupations (nursing, physical therapy, dental) was significantly correlated with lower behavioral CQ. Much of the research on cultural competence in higher education comes out of the health care education field (Horvat, Horey, Romios, & Kis-Rigo, 2014). As suggested earlier, CQ scores in this area may be an indication that health occupations faculty scored themselves lower because of their already increased awareness of complex cultural dynamics—in other words, they already know what they don't know (Bhawuk & Brislin, 2000). Nonetheless, it is worthwhile to note that scholars in the health care field have recommended revamping cultural competence curriculum (Betancourt & Green, 2010), as well as providing ongoing training to practitioners and educators alike, to address widespread disparities in the health care of individuals in the United States based on race, ethnicity, and socio-economic class (Smedley, Stith, & Nelson, 2009).

STEM and education academic disciplines significantly correlated with lower scores on metacognitive CQ. This finding is supported by previous research on STEM and CQ (Evola, 2012) that found educators in STEM fields have lower CQ. Furthermore, this finding is in line with scholarly observations of STEM undergraduate pedagogy, which suggest such courses tend "to focus too much on the acquisition of content knowledge and too little on the development of metacognitive skills related to critical thinking" (Eagan, Herrera, Sharkness, Hurtado, & Chang, 2011, p. 5).

Furthermore, scholars stress that the STEM curriculum provides little emphasis on issues related to cultural competence and cultural diversity (Ladson-Billings, 1995; Tanner & Allen, 2007). Research by A. Johnson (2007) found that there are two core education values commonly held by science faculty that contribute to this challenge: science as context free and science as neutral with respect to race, ethnicity, and gender. As Tanner and Allen (2007) note,

> Research in science education is uncovering evidence that scientists, science departments, and universities, many of whom believe that they are earnestly striving toward inclusion and diversity, are in fact doing just the opposite, in large part because those individuals and systems have not had the opportunity or push to examine their own cultural competence. (p. 253)

Education academic disciplines significantly correlated with lower scores on metacognitive CQ. This finding is a bit of a surprise because of the heavy emphasis on cultural competency in K-12 credential programs (Morell, 2010). As

with the health occupation faculty, one of the reasons education academic disciplines scored significantly lower on metacognitive CQ may be that because of extensive training these faculty may be aware of their own limitations in this area (Bhawuk & Brislin 2000). Nonetheless, some scholars argue that the current cultural competence models embraced by education fields are limited by their failure to address sexism, racism, and other oppressions (Abrams & Moio, 2009), thus failing to raise the faculty awareness and reflection necessary for improved metacognition.

An important implication of this line of research is that the culture of an academic department, as well as the academic training and preparation provided to instructors within their fields, may greatly influence individual CQ. Thus, it may be worthwhile for colleges to invest in developing CQ at the micro, departmental level, not just at the individual or organizational level.

Although the link between academic discipline and the four factors of CQ presents an interesting contribution to the literature on CQ, a significant limitation exists with this line of research. Whether there is a significant relationship between academic discipline and CQ may depend on how researchers divide the academic disciplines. It is common to find academic disciplines housed in different divisions at different colleges; in other words, a comprehensive means for categorizing academic disciplines is lacking. Thus, slicing the academic discipline pie in a different way may yield different results. Furthermore, these findings do not suggest that faculty in some academic disciplines are more in need of cultural competence than other disciplines, rather that regardless of the

academic background, all college faculty should receive training in some form of CQ or cultural competence as one potential strategy for addressing racial and ethnic disparities in education. Developing CQ in college faculty across academic disciplines can benefit all students, but may be especially helpful when engaging students who come from different cultural backgrounds than the faculty member.

Diversity training. This study found no correlation between participation in diversity training over the previous 2 years and increased CQ. The relationship between cross-cultural training and CQ scores is complicated (Fischer, 2011; Rehg, Gundlach, & Grigorian, 2012). For example, one study of 110 military and government civilians found that cross-cultural training increased cognitive, behavioral, and motivational CQ (metacognitive CQ was not tested) (Rehg et al., 2012). However, a study of 107 college students showed that brief cross-cultural training sessions actually decreased metacognitive and cognitive CQ scores (Fischer, 2011). The researchers attribute the decline in scores to students' becoming aware of their own cultural competence limits, which scholars consider a common first step to the intercultural learning process (Bhawuk & Brislin 2000). The study adds to the inconclusive relationship between diversity training and CQ, which future studies can investigate in-depth. A significant limitation of this study is that participants were asked if they had participated in any form of diversity training over the previous 2 years; however, they were not asked to specify the type of training, the duration, or the subject of the training,

which previous research suggests are all important variables for understanding the impact of cross-cultural training.

In summary, the results of the first research question provide a benchmark for understanding full-time community college faculty levels of the four factors of CQ. Furthermore, number of languages spoken, number of times travelled outside of the United States, and academic disciplines were significant predictors of CQ. These findings are of value in relationship to the results of Research Questions 2 and 3 because, as previous scholars have argued, individuals with high CQ may "handle work challenges better by using personal resources involving core characteristics of cultural intelligence" (Diao & Park, 2012, p. 7307).

Research Question 2

The second research question examined what faculty characteristics predict conflict management style preferences (integrating, dominating, obliging, avoiding, and compromising). The key findings from research Question 2 indicate that gender, years teaching, and academic discipline significantly predict conflict styles and that community college faculty show a strong preference for the integrating conflict management style.

Summary of findings. The conflict portion of the survey in this study was framed by asking faculty members to identify conflict experiences with students. Ninety-three percent of the respondents reported experiencing conflict with students. The top four conflict issues identified by faculty included grading issues, cheating/plagiarism, attendance issues, and poor student interpersonal

conduct. The findings here are consistent with college student views of conflict with faculty (Tantleff-Dunn et al, 2002). Tantleff-Dunn and colleagues (2002) conducted a quantitative survey of 122 college students on their perceptions of conflict with faculty. Students reported that student–faculty conflict resulted from grade disputes, perceived unfair exam content, professor conduct, perceived teaching limitations, and disagreements over validity of student excuses.

Conflict styles. The results from Research Question 2 showed that faculty members demonstrated a strong preference for an integrating style of conflict management, followed by a moderate preference for compromising and obliging, and weak preference for avoiding and dominating conflict styles. The results of this study are consistent with previous research that demonstrated educators tend to prefer collaborative and/or integrating conflict management styles that focus on the faculty–student relationships (Bartlett, 2009; Meyers et al., 2006; Morris-Rothschild & Brassard, 2006; Rao, 2012). These results are a positive indicator for faculty because studies of college students found that college students perceive integrating as the most effective conflict management style (M. Gross & Guerrero, 2000). Consistent with the tenets of conflict face-negotiation theory (Ting-Toomey, 2005), Rahim (2010) stresses that the most appropriate conflict management style may depend on the situation, with integrating and compromising being best suited for strategic or complex issues, and the other styles for more routine conflicts.

Interpretation. The faculty in this study showed a strong preference for the integrating conflict management style. The integrating conflict management

style emphasizes concern for self as well as the other, collaboration, and problem solving. The findings here are consistent with previous research where faculty reported preferring to use the following behaviors when resolving conflicts with students: communicating respect, clarifying course goals, including students in problem solving, and encouraging classroom community (Meyers et al., 2006). The preference for an integrative approach to resolving conflict with students is not surprising—this preference fits in nicely with some of the primary values of the organizational culture of the California community college system, such as shared governance and student success.

Interestingly, community college faculty members' strong preference for the integrating conflict management style may be an indication that faculty are relying on this approach too much. As Rahim (2010) stresses, each conflict management style may be best suited to certain times, topics, people, and situations, and since the faculty scores demonstrated high preference for this approach it may indicate too much dependence on this approach. In educational settings, relying heavily on an integrative conflict management style could result in trying to solve too many conflicts, trying to solve problems that may otherwise resolve themselves, and devoting too much time to conflict management. Additional research has demonstrated that teachers in other systems, such as K-12, prefer avoiding and compromising styles (Antonecchia, 1983; Fields, 1996). The difference in conflict preferences may be largely due to different situational factors, such as positions in the organization and employee level of status (Ting-Toomey, 2005). In contrast with the K-12 context, the faculty members in this

study reflected on their conflicts with college students, who are usually adults over the age of 18, and there is little parental involvement. In the case of K-12 systems, teachers may take a different approach when negotiating conflict with minors, being mindful that conflict with minor-aged students can lead to conflict with their parents.

Faculty conflict management styles have important implications for student success in education. Research shows that students perceive integrating as the most effective conflict management style and avoiding as the least effective (M. Gross & Guerrero, 2000). Friedman et al., (2000) found that integrating is associated with less conflict, while dominating and avoidance produced more conflict. Unresolved conflict can lead students to drop their classes (Harrison & Morrill, 2004), and drop out of the university (Harrison, 2004b).

Gender. This study found a correlation between gender and conflict management style preference. Females reported preference for using integrating and avoiding conflict management styles. Being male was significantly positively related to a dominating conflict style. Research on gender and conflict styles is largely contradictory (Rahim, 2010). For example, this study is consistent with previous research that found males are more likely to use a dominating conflict management style than females (Brewer, Mitchell, & Weber, 2002; Henderson, 2006). However, a separate study on faculty conflict management strategies and demographic characteristics found no relationship between gender and conflict strategies (Meyers et al., 2006). As Nicotera and Dorsey (2006) observed, research on conflict and gender is "consistent only in its inconsistency" (p. 310).

In a thorough review of the research literature on conflict and gender, Nicotera and Dorsey (2006) concluded that "the search for gender differences in organizational communication and in conflict communication particularly, has little promise to produce any meaningful findings" (p. 312). Nonetheless, gender differences in conflict continue to fascinate researchers. That research continues to discover significant gender differences in conflict management style preferences, although inconsistently, indicates that other factors may be at play, such as gender roles, roles within the organization, organizational cultures, and the other party in the conflict. Individual conflict management styles are a complex process, influenced by multiple variables in addition to gender (Ting-Toomey, 2005). Therefore, in light of the results of this study, community college faculty conflict management styles may be a reflection of the culture of the community college system, the culture of each campus, and the unique culture of each academic discipline, as well as variations in individual perception.

Academic discipline. One of the demographic variables examined in this study was the academic discipline of the faculty members. Of the 10 broad groupings of academic disciplines and conflict management styles, there were significant relationships between business, counseling, liberal arts, and STEM disciplines and differing conflict management styles.

Working in the counseling academic discipline has a significant inverse relationship to the use of the avoiding conflict management style. It is no surprise that counselors score low in avoiding as a group, because central to the community college counselor's role is helping students negotiate academic,

career and personal issues so that they may achieve their educational and career goals (Academic Senate for California Community Colleges, 2012). When interacting with students, counselors may not have the option of choosing avoidance as a strategy, because students are explicitly seeking them out for participatory guidance and problem solving. By definition, the counselor's role is not to avoid problems but to address them.

Liberal arts and business were significantly correlated with an increase in dominating conflict management style. It is not a surprise that teaching in liberal arts and business academic disciplines correlated with an increase in dominating conflict management styles. Within liberal arts, disciplines such as English and communication studies offer courses in argumentative writing, debate, and persuasion, all of which emphasize critical thinking and winning arguments. Business fields offer courses such as business law and negotiations, and the field is known for its competitiveness, all of which is in line with a dominating conflict management approach. Furthermore, the increase in dominating conflict management style by certain disciplines may be a reflection of a strategic repertoire of behaviors that faculty have developed to use based on the nature of the conflict.

STEM academic disciplines were significantly inversely correlated to both compromising and obliging conflict management styles. In comparison to other academic disciplines, faculty members who teach in STEM fields were less likely to use compromising and obliging conflict management styles when interacting with students. The organizational culture of STEM fields may contribute to the

reduced use of compromising and obliging conflict management styles. The STEM fields are often characterized as competitive in nature, with "privileged status [that] is founded on the capacity to be right most of the time" ("How science goes wrong," 2013, p. 12). If the competition that exists amongst the ranks of faculty is extended to problem solving with students, STEM faculty may be less inclined to use compromising or obliging conflict management styles. Granted, STEM courses are extremely academically rigorous; however, in light of low student success rates in STEM fields, these findings may have important implications for student success and may warrant additional research.

Ethnicity. This study examined the relationship between the faculty member's ethnicity and preferred conflict management strategies. The correlation between Native American identity and the obliging conflict management style was inversely related. However, since there were only five individuals that self-identified as Native American, it is difficult to make any generalizations. Thus, the results are too small to make any meaningful interpretations. In fact, previous research has suggested that rather than ethnicity, cultural values (Gudykunst & Nishida, 1986; Kozan, 1999), self-image (Oetzel, 1998), and ethnic identity (Ting-Toomey et al., 2000) are better predictors of conflict management styles.

Years teaching. This study found an inverse relationship between years teaching and the avoiding conflict management style. Faculty members who have been teaching for 10–15 years reported being much less likely to use an avoiding approach to conflict management with students. For many faculty, once

they have taught for several years they may have gained a certain sense of confidence. At this point most full-time faculty have tenure, they should be familiar with faculty and student rights, and they have the experience to back up their positions, thus they may not feel the need to avoid conflicts. However, the findings here contradict previous research that suggests faculty rely heavily on conflict avoidance tactics. To illustrate, one study of college faculty members with an average of 20 years teaching experience found that 61.5% of respondents reported ignoring problems with students (Meyers et al., 2006). Perhaps as faculty gain teaching experience over the years they learn to choose their battles and prioritize which conflicts require active management and which conflicts can be appropriately avoided.

In summary, the key findings from the second research question indicate that community college the faculty member's gender, years teaching, and academic discipline predicted conflict styles. Overall, faculty members reported a preference for the integrating conflict management. Male faculty members were more likely to indicate preference for a dominating conflict management style than were female faculty. Business, counseling, liberal arts, and STEM academic disciplines significantly correlated to the preference of conflict management styles. Overall, the findings are significant because conflict management practices in higher education have been linked to student success (Harrison & Morrill, 2004), yet little research has examined community college faculty conflict management preferences.

Research Question 3

Despite the importance of negotiating conflict with students, little research exists on what predicts community college faculty conflict management styles in culturally diverse institutions. Research the third question set out to examine whether the four factors of CQ (metacognitive, cognitive, motivational, and behavioral) predict the five styles of conflict management (collaborating, dominating, obliging, compromising, and avoiding) for full-time faculty working in community colleges with culturally diverse student populations.

Summary of findings. The key findings from research question three indicate that when controlling for gender, age, and ethnicity, there are significant correlations among the four factors of CQ and three of the conflict styles. The four factors of CQ combined were correlated with integrating, dominating, and compromising conflict styles. Individually, metacognitive CQ and motivational CQ are positively correlated to an integrating conflict style. Motivational CQ is negatively correlated to dominating conflict style. None of the four factors of CQ individually predicted avoiding and obliging conflict style, though in both cases it was approaching significance (see Table 9).

Interpretation. The four factors of CQ in combination were correlated with community college faculty members' preference for using integrating, dominating, and compromising conflict management strategies, while obliging and avoiding behaviors were nearing significance. These findings are consistent with conflict face-negotiation theory that suggests optimal negotiation of conflict must combine knowledge, mindfulness (similar to metacognitive CQ), and

communication skills (similar to behavioral CQ) to appropriately, effectively, and adaptively respond to what can be emotionally charged, identity threatening encounters (Ting-Toomey, 2004). In other words, as the conceptual frame of CQ suggests, all four factors of CQ are significant in combination. Of the four factors of CQ, results indicated that cognitive CQ was not a significant predictor of conflict management preferences. Of the four factors of CQ, faculty scored the lowest on cognitive CQ. Cognitive CQ may be significant, but this was not apparent due to the overlap of the four factors of CQ or overlap in the five conflict management styles.

Integrating. The results of Research Question 3 demonstrate a significant relationship between the four factors of CQ in combination and the integrating conflict management style in community college faculty members. This is consistent with previous research that established that negotiators with overall higher CQ used more integrative information behaviors and cooperative management behaviors (Imai & Gelfand, 2010). The integrating conflict management style is based on a concern for self as well as a concern for others; of the five conflict management styles it is considered the most closely related to a collaborative, problem-solving approach. Faculty members who have higher CQ are more likely to use an integrating approach to conflict management with students.

The combination of the four factors of CQ predicts the integrating conflict management style. Individually, metacognitive CQ and motivational CQ are the best predictors of integrating conflict style. This is consistent with Steinberg's

triarchic model of intelligence that stressed meta-components are necessary for decision making and problem solving (Sternberg, 1985), and are both essential features of an integrating conflict management style. Faculty members high in metacognitive CQ will tend to use culture-specific and culture-general knowledge to mindfully reflect, monitor, and strategize the best ways to resolve conflict issues with students. Faculty members high in motivational CQ may better recognize the benefits of resolving conflict and demonstrate the ability to persevere through conflict with students. As Imai and Gelfand (2010) observe, "individuals with higher motivational CQ enjoy interacting with people from different cultures; thus, are less likely to make ingroup–outgroup distinctions and are more likely to have cooperative motives than individuals with lower CQ" (p. 12).

Dominating. The results of Research Question 3 demonstrate a significant relationship between the four factors of CQ and the dominating conflict management style in community college faculty members. The dominating conflict management style is based on high concern for self and low concern for others. This approach is considered a competitive, win–lose approach to conflict management.

The combination of the four factors of CQ predicts an inverse relationship to the dominating conflict management style, which is largely driven by an inverse relationship to motivational CQ. Individually, there is not a significant relationship between metacognitive CQ and cognitive CQ and dominating conflict management style. Motivational CQ is inversely related to the dominating style

of conflict management, indicating that the higher faculty score on motivational CQ, the less likely they are to use a dominating conflict approach. Research has found that individuals with high CQ tend to be more agreeable (Ang et al., 2006; Kim, Kirkman, & Chen, 2008) and report higher levels of trust regarding culturally different others (Rockstuhl & Ng, 2008), thus emphasizing cooperation over competition when interacting with others. This may indicate that faculty members who score high in motivational CQ have the desire to build positive relationships and the perseverance to attempt collaborative problem solving and that faculty resort to using a more authoritative approach with students only when motivation to solve the conflict decreases.

As faculty behavioral CQ scores increase, the more likely they are to use the dominating approach to conflict. Previous theory and research on CQ suggest that multicultural teams may be less likely to experience conflict if team members have high behavioral CQ (Ang & Van Dyne, 2008). Furthermore, previous research demonstrates that the more individuals in educational settings use a dominating conflict management style, the more likely they are to experience conflict (Friedman et al., 2000). Perhaps, as a faculty member's behavioral CQ increases, the range of verbal and nonverbal communication behaviors also increases, allowing the faculty member to adapt his or her conflict approach as needed by the situation. As noted by Van Dyne et al. (2012), individuals with high behavioral CQ have the ability to adapt their behaviors, such as silence and interaction, proximity and distance, and style of disagreement, depending upon the cultural setting (Van Dyne et al., 2012). An individual with a

wide repertoire of conflict management skills will at times recognize the need to use a dominating approach. Furthermore, it is likely that an individual with high CQ will have the ability to reflect on the conflict situations and adapt behaviorally to the context of the conflict. Thus, that behavioral CQ predicts an increase in the use of the dominating approach to conflict may be an indication of the strategic ability to adapt conflict behaviors to the needs of the situation.

Compromising. The results of the third research question demonstrate a significant relationship between the four factors of CQ and the compromising conflict management style in community college faculty members. The compromising conflict management style is based on moderate concern for self and moderate concern for others. With the compromising style of conflict management, both parties make small concessions to reach a mutually satisfying middle ground.

While there is no single factor of CQ that is the best predictor of compromising, the unique combination of the four factors of CQ predicts increased use of the compromising conflict management style. This finding supports the CQ perspective, which stresses that CQ operates as both a multidimensional construct and independent capabilities, which have application to different outcomes (Ang & Van Dyne, 2008). Metacognition may contribute to an increase in compromising by causing individuals to reflect on the conflict situation and strategize to choose the best approach to resolve the issue. In line with face-negotiation theory (Ting-Toomey, 2005), cognitive CQ may contribute to the use of a compromising conflict management style because individuals with

cultural knowledge "can develop an accurate culture-sensitive perspective and learn to reframe their interpretation of a conflict situation from the other's cultural frame of reference" (Ting-Toomey, 2010, p. 143). Motivational CQ may contribute to a compromising conflict management style because individuals may recognize the value of mutual gain that can be obtained from reaching a compromise when trying to resolve conflicts with students. Behavioral CQ, in combination with the other CQ factors, may enable individuals to display flexibility in their conflict responses.

When examined through a lens of CQ, conflict between faculty and students can foster positive outcomes in relationships. In the context of the multifaceted, diverse community college system, CQ allows the conflict participants to choose the most appropriate response to the conflict incident and can enable faculty members to focus on the common interests of the faculty and student. This in turn can cultivate relational growth for both the faculty member and the student.

Implications

The most important finding from this study is that community college faculty member's levels of CQ predict their conflict management style preferences when interacting with culturally diverse student populations. The results from Research Question 1 indicate that community college faculty have relatively high levels of motivational CQ and metacognitive CQ, with moderate levels of behavioral CQ and cognitive CQ. Adding to the research on antecedents of CQ, the findings from this study indicate that the number of

languages spoken, number of times travelled outside of the United States, and academic disciplines were significant predictors of CQ. The results from Research Question 2 specify that gender, years teaching, academic discipline, and ethnicity significantly predict conflict styles and that community college faculty show a strong preference for the integrating conflict management style. The results from Research Question 3 indicate that CQ predicts integrating, dominating, and compromising conflict management behaviors. In light of the research findings in this study, there are several implications for theory, research, practice, and policy. The implications discussed in this section represent my reflections as a Level Certified Cultural Intelligence Trainer, and a Certified Conflict Mediator who has 20 years teaching experience as a full-time community college faculty.

Implications for Theory

The results of this examination of CQ and conflict management within the context of higher education provides several implications for theory. The findings contribute to the research on CQ and conflict management by identifying demographic characteristics that predict increased or decreased CQ in community college faculty, demographic characteristics that influence conflict management style preferences of community college faculty, and which factors of CQ best predict conflict management styles in community college faculty. This next section overviews contributions to research on CQ and conflict, and suggestions for future research.

This study contributes to the growing body of research on CQ by supporting the contention that CQ operates as both a multidimensional construct and as independent capabilities, which have application to different outcomes (Ang &Van Dyne, 2008). The four factors of CQ work together as a multidimensional construct significantly predicting integrating, dominating, and compromising conflict management styles. In terms of the individual capabilities of CQ, there are four significant relationships: Metacognitive CQ significantly predicted the integrating style of conflict management. Motivational CQ significantly predicted an increase in integrating and a decrease in dominating conflict management styles. Behavioral CQ significantly predicted the dominating style of conflict management. Therefore, the results of this study support the premise that CQ functions as both a multifaceted construct and as independent capabilities, which may have different outcomes.

This study specifically adds to the research supporting the relevance of CQ in educational contexts (Goh, 2012) by linking CQ to the recognized framework of conflict management (Rahim, 2010). The research on conflict management styles in general is well-established, and research on cross-cultural conflict styles is abundant. Nonetheless, this study adds to the research by identifying CQ as a specific predictor of conflict management styles. This study lends empirical support to a significant relationship between CQ and negotiation of conflict in culturally diverse settings.

CQ has been widely studied within the context of international settings (see Ng, Van Dyne, & Ang, 2012, for a review); however, sometimes the culture

closer to home creates the greater chasm. In international settings, it is likely that individuals will expect to face some cultural challenges. Conversely, in the domestic setting of U.S. community colleges, instructors engage culturally diverse student populations on a daily basis, often without the knowledge of how complex cultural dynamics are influencing faculty–student interactions. Scholars have argued that the construct of CQ has the potential to provide insight into domestic work settings characterized by a culturally diverse populace (Earley et al., 2006). While cultural competence is widely represented in education fields, scholars have recently suggested that CQ may specifically help to explain and operationalize the skills needed by educators to work with culturally diverse individuals (Gelfand, Imai, Fehr, 2008; Goh, 2012; Naughton, 2010). This study extended research on CQ by examining community college faculty members' levels of CQ within the domain of higher education, establishing a benchmark for understanding college faculty member's level of CQ.

Several scholars have criticized existing conceptualizations of cultural competence models favored by higher education (Abram & Moio, 2009; Prieto, 2012). Part of the challenge is that there are no generally agreed upon models for assessment and training (Spitzberg & Changnon, 2009). Additionally, the lack of validated measurements that apply to cultural competence for instruction of culturally diverse student populations creates obstacles for meaningful assessment (Ocampo et al., 2003; Prieto, 2012). Scholars argue that the traditional conceptualization of cultural competence favored by the education field is limited in addressing the needs of our diverse student population in that

traditional approaches fail to account for additional factors that may affect instructors' ability to work with students from different cultural backgrounds (Goh, 2012; Paige, 2004), such as problem solving, and strategic planning.

By applying CQ to the context of faculty within higher education, this research also builds on the study of cultural competence as a necessary skill for college educators who serve diverse student populations. It is widely recognized that students vary in the degree in which they identify with their culture, and faculty responsiveness to students' diverse cultural backgrounds may help translate knowledge into effective instruction (NEA, 2012). Cultural competence has been widely studied in K-12 and education health care fields (Diller & Moule, 2005; Horvat et al., 2014), yet limited research has examined college faculty preparation to engage culturally diverse student populations (Valentine et al., 2012). Assessing college faculty member's levels of CQ provides a benchmark for understanding educators' drive, strategies, knowledge, and actions in engaging diverse student populations.

Several scholars have called for more research on conflict management in the context of higher education (Adams, 2006; Blackburn, 2002; Donovan, 1993; Green, 1984; Pritchard, 1985). The majority of research on instructor–student conflict focuses on K-12 (Tantleff-Dunn et al., 2002), with very limited research on conflict in the context of community colleges (Bartlett, 2009). Using Rahim's (2010) organizational conflict management model to examine faculty–student conflict in community colleges adds to the body of research that suggests

understanding conflict in the context of higher education is an important factor for promoting student success.

This study adds to the abundant research on conflict management by identifying factors that predict conflict management style preferences. Furthermore, this study adds to the existing literature on conflict management in higher education by examining how full-time faculty manage conflict with diverse student populations. Specifically, the results of this study indicate that gender, academic discipline, numbers of years teaching, and CQ are all predictors of community college faculty conflict management style preferences. The most significant contributions of this study are the findings that academic discipline and CQ predict conflict management style preferences. These findings support the contention that conflict management styles are learned, contextual, and culturally based (Rahim, 2010; Ting-Toomey, 2005).

Furthermore, this study added to the complexity of research findings on gender differences in conflict management styles. Rather than dismissing gender differences in conflict management style preferences as some scholars suggest (Nicoterra & Dorsey, 2006), research should continue to explore why gender differences keep emerging in conflict management style preferences. As Cupach, Canary, and Spitzberg (2010) observe, there are numerous factors that influence gender differences in conflict management styles, including socialization, perception, sex-role expectations, stereotypes, individual dispositions, prior conflict experiences, and familiarity of conflict participants. The foregoing body of work leads to the question of how the organizational

culture of higher education contributes to this socialization process and the formation of gender expectations about appropriate and effective conflict management approaches. Because faculty–student conflict has serious implications for students' perceptions of their college experience (Harrison & Morrill, 2004; Tantleff-Dunn et al., 2002), and faculty approaches to conflict management can greatly impact the outcome of the conflict (Rao, 2012), it is critical to student success for educators to develop a more in-depth understanding of factors that contribute to gender differences in college faculty conflict management style preferences.

Overall, as Tantleff-Dunn et al. (2002) observed, "successfully navigating the occasionally rough interpersonal seas may help professors and their students to stay focused on their mutual goals of teaching and learning" (p. 202). Although this research adds to the behavioral understanding of conflict management approaches, as previous scholars have argued, the study of conflict management in higher education must move beyond a focus on prescriptive behavioral responses to conflict (Tantleff-Dunn et al., 2002). Studying a list of pre-determined conflict responses is unlikely to guarantee successful conflict outcomes (Cupach et al., 2010). Examining CQ as a predictor of conflict management styles opens the door beyond the rote behavioral component of conflict to provide a broader understanding through a motivational, strategic, and knowledge-based conceptual lens.

This study demonstrates that CQ may be an important mediating factor between conflict management styles and effective conflict outcomes in culturally

diverse settings. Thus, the four factors of CQ (motivation, metacognition, behavior, and cognition) can provide a valuable theoretical framework for enhancing understanding of conflict in culturally diverse settings. Furthermore, this study extends research on the link between theories of cultural competence and conflict management style preferences.

As discussed in Chapter 2, face-negotiation theory provides a critical and theoretical basis for understanding the link between conflict management and CQ. This study lends support to face-negotiation theory by demonstrating that the four constructs of CQ influence conflict management strategy preferences. The theory stresses the need for intercultural face-work competence, based on the components of knowledge, mindfulness, and communication skills.

The knowledge dimension, which emphasizes an understanding of cultural values, face needs, and face-work strategies, is similar to cognitive CQ. In this study, faculty scored the lowest on cognitive CQ, the knowledge dimension, indicating the need to develop knowledge about community college student populations. Developing knowledge of student populations, can lead to an understanding of faculty and student desired conflict outcomes, rules that influence conflict negotiation, and behaviors that lead to successful conflict resolution. The mindfulness dimension, which emphasizes being aware of personal assumptions as well as the assumptions of others, is similar to metacognitive CQ. This study found that metacognitive CQ predicted the integrating conflict management style. The metacognitive component of CQ, like mindfulness, is essential for "understanding how our own cultural worldviews

and value system shape our conflict responses and gut-level reactions, and simultaneously, realizing that there are alternative worldviews and value systems that frame our cultural partners' conflict lens and meaning" (Ting-Toomey, 2010, p. 160). The communication skills dimension is similar to behavioral CQ. In this study, behavioral CQ predicted an increase in the use of the dominating conflict management style. This highlights that high-CQ individuals may have the ability to strategically choose conflict responses, emphasizing appropriate and effective adaptations of verbal and nonverbal skills, and that there is not a one-size-fits-all communication approach to conflict. Face-negotiation theory does not explicitly discuss motivation, though several competence models include motivation as a key component and some scholars argue that it is a subset of Ting-Toomey's mindfulness component (Spitzberg & Changnon, 2009). This study lends support to including motivation as a key factor for understanding conflict management styles, as motivation was a predictor of increased use of an integrating style and decreased use of a dominating style of conflict management.

Implications for Research

The theoretical implications of this study provide several avenues for future research. This study established CQ as a significant predictor of conflict management styles in college faculty, which has important implications for understanding faculty–student interactions. Future research should extend this line of research by examining additional variables that are influenced by faculty member's CQ, such as student engagement, immediacy, and faculty leadership styles. An important value to examine is whether increased CQ scores increase

a faculty member's ability to engage culturally diverse student populations. The faculty in this study self-rated themselves as moderately high in the four factors of CQ, so a natural area for future research is to examine student perceptions of faculty levels of CQ. Furthermore, as research on CQ in educational settings continues to grow, an interesting line of research would be to examine qualitatively how high-CQ faculty members interact with diverse student populations.

In light of the findings in this study, future research should examine the most appropriate and effective conflict management behaviors in relation to a variety of different conflict situations in diverse educational settings. Furthermore, future research should extend the findings of this study to explore in more detail how CQ influences individual conflict perception and process. Specifically, research needs to extend beyond behavioral examinations of conflict, to investigate to a greater extent factors that contribute to motivational, metacognitive, and cognitive dimensions of conflict management.

Implications for Practice

Professional development. Faculty, staff, and student professional development should provide ongoing, annual training in the four factors of CQ and conflict management. Based on the results of this study, faculty are most in need of cognitive CQ, or culture-general and culture-specific knowledge about the diverse student groups being served in the community college system. From a theoretical perspective, CQ is considered a malleable, learned construct that can be strengthened through different training methods (Ang et al., 2007; Earley

& Peterson, 2004; Ng, et al.., 2009; Rockstuhl, Hong, Ng, Ang & Chiu, 2010), therefore, these capabilities can be enhanced.

In order to promote student success and reduce the student achievement gap, colleges should incorporate cultural competency and conflict management training into new-faculty orientations, part-time faculty training, across the curriculum, and ongoing campus flex activities. Due to restricted budgets, limited time, and lack of participation from burned-out faculty, diversity-training initiatives in higher education often come up short. In order to meet the ongoing needs of all types of diversity in higher education, in-depth training must speak to issues of faculty drive and motivation (motivational CQ), cultural awareness, problem solving and strategy (metacognitive CQ), specific cultural information about student populations (cognitive CQ), and detailed verbal and nonverbal applications (behavioral CQ). As Mayhew, Grunwald, & Dey, (2005) explain, "In terms of diversity, the magnitude of an institution's commitment . . . is measured by its willingness to integrate different racial and ethnic perspectives into its curricular initiatives" (p. 408). College campuses' commitment to incorporating diversity-related issues into academics influences the institution's ability to develop a positive campus climate, which in turn encourages student success and learning.

Professional development should extend beyond CQ and include conflict management training for faculty, staff, and administrators. Ninety-three percent of full-time faculty in this study reported experiencing conflict with students, ranging from grading issues to poor student conduct. Other studies have

documented that conflict is a common component in workplace settings. Gmelch and Burns (1991) go so far as to declare that conflict is "sewn into the fabric" of higher education (p. 110). Providing faculty with conflict management training can help instructors learn to navigate the often-bumpy road of faculty–student relationships, as well as to serve as models for students attempting to negotiate conflict issues. The influence of culture on conflict management makes CQ an effective framework for designing a conflict management training program for educators who work in culturally diverse settings. Key elements of conflict management training should include identification of key conflict issues in higher education (with special emphasis on the influence of cultural orientations), individual assessment and reflection, and behavioral strategies for different types of conflict situations. The skill set faculty members derive from conflict management training will not only benefit students but also serve to help facilitate problem solving in all campus relationships.

Furthermore, professional development in the areas of CQ and conflict management are essential for leadership development on community college campuses. According to Perrakis, Campbell, and Antonaros (2009), full-time faculty members fill the majority of administrative and executive leadership roles on college campuses. Although faculty may be experts in their academic disciplines, they may lack the skills necessary for effective leadership. The AACC (2015) identifies six competencies necessary for successful community college leadership: organizational strategy, resource management, communication, collaboration, community college advocacy, and

professionalism. Collaboration emphasizes the need to "embrace and employ the diversity of individuals, cultures, values, ideas, and communication styles" and "demonstrate cultural competence relative to a global society" (AACC, 2015, para. 4). Thus, providing faculty and staff with professional development training in the area of CQ will help to prepare future campus leaders.

The ultimate goal of incorporating CQ and conflict management training into professional development is to promote student success in general and to promote these skills in students in particular. Community colleges must make a concerted effort to build a from-the-ground-up movement by extending CQ and conflict management training to students. An excellent starting point for colleges is to adapt the recently published Intercultural Knowledge and Competence Value Rubric developed by the AACU (2013) and use the rubric to integrate a CQ framework at the course level, as well as in campus wide student-based initiatives, such as new student orientations, focus groups, and student-led organizations.

Study abroad. Research for this study showed that the number of travel experiences outside the United States increased levels of CQ. Colleges may want to consider providing additional support for study abroad programs to encourage more faculty and students to take advantage of these opportunities. Study abroad programs in education have been increasing (Crowne, 2008), but many community colleges fail to participate in such programs because of to low student participation. Colleges may want to partner with other schools to provide faculty and students the opportunity to participate in such experiences. Not only

will these experiences promote CQ in faculty, they also will contribute to students' CQ, preparing them for the global workforce.

Integrate CQ into higher education curriculum. Colleges can integrate the training initiatives discussed above into ongoing professional development. Nonetheless, the significant difference in CQ scores across academic disciplines suggests the need to integrate CQ into higher education instruction in general. The inclusion of CQ instruction is rapidly increasing in different academic areas, from MBA programs to speech language pathology (Griffer & Perlis, 2007; Smith, Shrestha, & Evans, 2010; Westby, 2007). Additionally, scholars are calling for the inclusion of CQ into Educational Leadership programs (Keung, 2011).

Language education. Results for this study showed that the number of languages spoken was linked to higher CQ. Community colleges should consider providing faculty members and students with increased opportunities to study world languages. Most community colleges have robust world language departments, offering courses in languages that are in demand by both the global marketplace and needs of local communities. An innovative way to expose faculty to language instruction would be to increase the number of team-taught learning communities combining specific language courses and other core academic courses. Furthermore, colleges should actively work to develop a campus culture that supports student language learning beyond the necessary transfer requirements.

Hiring practices. In order to continue to promote student success, community colleges must continue their commitment to hiring diverse faculty,

staff, and administrators, while recognizing multiple forms of diversity, such as cultural, ethnic, age, gender, sexual orientation, religious, and socioeconomic class. Colleges need to develop a more sophisticated measure of applicants' cultural competency, a means that goes beyond the traditional "diversity" interview question, to provide meaningful insight into individuals' CQ. Some scholars have advocated giving CQ as much weight at other interpersonal skills in the hiring process, going so far as to suggest that the inclusion of CQ assessment should be part of the screening process (Keung, 2011). There are multiple other ways to screen faculty applicants for CQ, including requesting a writing sample that addresses diversity issues in education, developing role-play scenario interview questions, as well as integrating diversity issues throughout the interview process and raising them in varied contexts in regards to teaching and the campus community. Students should be considered an essential component of this process as their unique cultural experiences have the potential to provide valuable insight to college hiring decisions.

Implications for Policy

Diversity and inclusiveness initiatives in organizations tend to lack the three f's: "focus, funding, and follow-through" (Garr, 2014, p.6). The implications for education policy related to cultural competence and conflict management emphasizes these three elements, specifically cultural competence certification, professional development funding, and diversity and inclusiveness assessment.

Student equity plan. In California, community colleges are now required to implement the Board of Governor's Student Equity Plan. Each college must

develop its own plan, goals, and measurable outcomes to improve student success and close the student achievement gap. Although not a solution to all achievement gap issues, factors of CQ should be integrated into college student equity plans as a means to serve diverse student populations. Integrating the construct of CQ will enhance student equity policies by providing a theory-based framework for measureable outcomes, training initiatives, and ongoing assessment.

Cultural competency and conflict management certifications. Scholars have long noted that faculty in higher education are not provided with formal pedagogical instruction, rather instructors must rely primarily on on-the-job training to develop their proficiency in teaching (Tinto, 1990). In California, the requirement for a community college credential was abolished with the passage of AB 1725. Pedagogical training in general, and cultural competence and conflict management training in particular, may improve faculty engagement of culturally diverse students. This study found that faculty experiences, such as travel outside of the United States, number of languages spoken, and academic training are significant predictors of CQ. Furthermore, this study found that CQ is a predictor of community college faculty conflict management styles. The findings here support the need for comprehensive cultural competence training for community college faculty. In an odd contradiction, California requires all students in K-12 credential programs to complete courses in issues related to educating diverse student populations (Morrell, 2010); however, faculty in higher

education are not required to complete similar programs (Olson & Spidell, 2008). One of the challenges in the community college system is that,

> In marked contrast with the K-12 sector of American schooling, we in higher education have traditionally come to our careers as teachers and managers of learning with little, if any, formal professional training or experience other than in the content of our various disciplines and perhaps employment as graduate teaching assistants. (Gardiner, 2000, p. 1)

As noted previously, there are several avenues for providing cultural competency and conflict management training for educators. Each academic discipline can incorporate cultural competency training into their curriculum, or schools can provide ongoing professional development training. One unique avenue may be for the California State University system's Higher Education departments to offer certificates in CQ and conflict management for higher education. Individuals interested in seeking instructional positions, advancing their career, or seeking leadership positions in community colleges can complete the certificate in addition to their discipline requirements in order to be prepared to serve culturally diverse student populations. Short-term certificate programs such as these will provide the in-depth foundation required of effective cultural competency training, and they can be of value to faculty, staff, and administrators in the community college system.

On a local level, where community-elected boards can set standards for hiring, community colleges should support adopting certificates in cultural

competence as a preferred qualification for hiring and/or salary advancement. Incorporating a cultural competency certificate into preferred qualifications for community college instructional positions would demonstrate colleges' commitment to the mission of serving culturally diverse student populations, provide colleges with additional tools to screen applicants, and enable applicants to provide evidence of training in this important area. Additionally, qualifying such certificates for salary advancement may encourage more faculty members to participate in specialized training.

Traditional diversity training programs, which are often too brief to provide meaningful results, have been criticized for mixed outcomes, such as a heavy emphasis on racism creating unnecessary conflicts and resulting in diversity training fatigue and backlash (Kirton & Greene, 2010). In contrast, the construct of CQ provides a rich foundation on which to build a cultural competence or CQ certificate program that emphasizes increasing self-efficacy, knowledge, and pedagogy for serving diverse student groups. In order to do so, a Cultural Intelligence Certificate Program must include specific instruction in the four factors of CQ, including motivation, metacognition, cognition, and behavior. Motivational CQ curriculum would focus on helping participants develop their self-efficacy, as well as examine the extrinsic and intrinsic rewards of working with diverse student groups. Research has shown that an essential component of diversity training is motivation and that to gain commitment from participants the training must demonstrate why and how such a program will help to improve the institution (Kirton & Greene, 2010). Higher education faculty must be made

aware of the necessity of critical cultural competency to successfully serve diverse populations. Under cognitive CQ, curriculum should emphasize information on California community college student populations, including demographics, cultural value patterns, and education trends. Metacognitive CQ curriculum would emphasize increasing individual awareness and self-reflection and provide different pedagogical approaches for serving the diverse student populations. Finally, the behavioral CQ component would emphasize appropriate and effective verbal and nonverbal behaviors for faculty serving diverse student populations. This training may vary based on the student populations served in different regions. Community colleges should seek both internal campus experts and external cultural competence specialists to develop and implement these types of training programs.

Increase professional development funding. Nationwide, with the economic downturn of the great recession, professional development programs for faculty and staff were severely cut or even eliminated. For example, in California's community college system the state has not funded professional development activities since 2002 ("4C/SD California Community College Council for Staff & Organizational Development Response paper 2002-2003 Governor's proposed budget faculty & staff development fund", 2002). In partial response, the Student Success Task Force made the recommendation to re-energize professional development by providing increased financial support for such endeavors. California has now passed AB 2558 for the establishment of the Community College Professional Development Program to provide state monies

for professional development if the funds are available (Williams, 2014). As Community College Chancellor Brice Harris pointed out in support of the bill, "The diversity of our students also requires that campus personnel be trained and ready to serve a wide range of student needs" (Bray, 2014, p. 4). However, the passage of AB 2558 does not guarantee a set amount of funds to be available for professional development.

At both the state and at local levels, funding must be provided for meaningful professional development for faculty and staff in the community college system. In California, the new Student Equity Plan provides a mechanism for funding professional development activities to support diverse student groups. The Student Equity Plan states:

> Professional development, including funding of consultants to educate faculty and staff on the effects of inequities; methods for detecting and researching inequities and their effects on college programs and local communities; improving the use of data, and effective practices and methods for addressing and improving outcomes for under-served students. ("California Community Colleges Chancellor's Office, 2014, p. 2)

Although promising, the aforementioned initiatives are new, funding levels have not been established, and the actual impact on professional development activities is unknown. Nonetheless, community college boards and campus leadership must actively pursue funding to support on-campus professional development initiatives that focus on the human side of teaching, namely cultural

competence, conflict management, and other crucial components to enhance faculty–student relationships and promote student success.

Cultural competence assessment. Despite widespread commitment to diversity and inclusiveness efforts as indicated by college mission statements, values, and strategic plans, there is a lack of meaningful assessment related to these efforts. Scholars have long acknowledged the importance of assessment for campus diversity initiatives (Milem, Clayton-Pedersen, Hurtado, & Allen, 1998). However, the assessment of existing "diversity measures often relies on a gauge of temporary affective feelings toward the diversity initiative as opposed to solid empirical evidence concerning lasting diversity and inclusion over time" (Ruggs & Hebl, 2012, p. 8). Assessment must identify current campus diversity initiatives (such as training programs and multicultural events), ascertain the measurable outcomes of these initiatives, include all campus populations in assessments, and use the results to inform future initiatives.

Limitations

This study contributes to the research regarding CQ and conflict management styles in community college faculty who serve in culturally diverse institutions. In light of the research findings, this study contains several limitations that warrant addressing.

This study was voluntary and the participants who self-selected to participate may have done so because of their own interest and motivation in serving culturally diverse student populations, and the faculty who chose not to participate may have had different scores. Although the CQS has shown to have

good peer versus inter-rater reliability (Ng et al., 2012), and the ROCI-II was revised to reduce social desirability response bias (Rahim, 2010), there is ample evidence that people overestimate their own abilities when completing self-assessments (Dunning, Heath, & Suls, 2004). Thus, both the self-assessment and the voluntary participation may have resulted in higher scores than if other data collection methods had been used.

This study relied on correlational research to establish whether relationships exist between demographic variables and CQ, demographic variables and conflict management styles, and CQ and conflict management styles. Nonetheless, there are limitations of correlational research. The findings in this study do not indicate a cause and effect relationship between variables; rather the results indicate a relationship exists (Tabachnick & Fidell, 2007). Furthermore, a limitation of correlational research is that there may be additional factors that were not measured or controlled for in this study that are causing changes in the variables (Lomax & Li, 2013). Future research should examine the relationship between different types of cultural competence training and the four factors of CQ, the effects of ethnocentrism on CQ levels, and attitudes about diversity in the classroom and CQ. Furthermore, this correlational research may be limited by the Western-based, five-style model of conflict management, and researchers should explore additional models of conflict management that use a more culturally inclusive approach (Ting-Toomey et al., 2000).

The survey instruments used for this survey in and of themselves had some limitations. The ROCI-II has been referred to as the industry standard for

assessing conflict in organizational settings (Bartlett, 2009), yet other scholars argue that members of different cultural groups view the five conflict styles differently, and thus the instrument may have limitations for surveying culturally diverse populations (Cai & Fink, 2002; Ting-Toomey, 1988). The CQS has been widely touted as a valid, reliable measure of cultural competence. Yet, the survey heavily emphasizes international culture, which may not always apply to the context of domestic education settings. Furthermore, although the survey instrument provided participants questions about conflict with students, a couple of respondents commented that they felt the survey instrument lacked context in which to frame their answers.

Although scholars consider a 40% response rate sufficient for a web-based voluntary survey, there was no way to collect responses from nonrespondents, which may have influenced the survey outcomes (Baruch, 1999; Fan & Yan, 2010). Furthermore, the response rate of the four participating schools was unbalanced, with one of the schools reaching a nearly 70% response rate and the other schools varying between approximately 25% and 35% response rates. Therefore, the responses in this study may heavily reflect one of the participating colleges.

The results of this study are limited to full-time community college faculty who teach in colleges populated by diverse student groups. Based on the participants in the sample, the results may be different for part-time faculty, K-12 educators, university faculty, and for schools with more homogenous student populations. Therefore, this research provides a benchmark for full-time

community college faculty who teach in culturally diverse settings, but the results may not be generalizable to other contexts. Future studies can examine community college faculty CQ in colleges with ethnically homogenous populations, colleges in different states, and colleges of different sizes. Furthermore, based on the significant link between academic discipline and the four factors of CQ, it would be worthwhile for future research to examine this relationship in more detail. For example, in addition to having faculty members complete the CQS, it would be interesting to add a qualitative component asking participants to describe in detail their master's level academic training in regard to issues of culture diversity.

Recommendations

The purpose of this study was to discover if a correlation existed between CQ and conflict management style preferences for community college faculty who work in culturally diverse institutions. The results of this study indicate that of the four factors of CQ, motivational CQ had the highest and cognitive CQ had the lowest correlation. Factors such as number of languages spoken, academic discipline, highest degree attained, and travel outside of the United States were significant predictors of CQ. The findings in this study indicate that the four factors of CQ correlate with faculty conflict management style preferences. Based on the findings of this study, there are four recommendations for policy and practice.

Expand Research on CQ in Higher Education

Previous research has established that CQ is a crucial predictor of success in international settings. Furthermore, CQ is an important predictor of several skills that are essential for educators and students, including effectiveness in diverse work settings (Chen et al., 2012), decision-making (Ang et al., 2007), and trust building (Rockstuhl & Ng, 2008). Recently, scholars have begun to extend research on CQ to the context of education, including leadership in school leaders (Keung, 2011), teacher performance (Gohar, 2014), and impact of multicultural courses on student CQ (Klein, 2010). This study built on previous research by establishing a correlation between CQ and community college faculty conflict management styles. Although theory and research in topics associated with culture, diversity, and conflict are abundant in higher education, the framework of CQ presents an innovative, theory-based advancement that can fill the voids of current theoretical approaches used in higher education. The CQ model has demonstrated significant explanatory power in international settings, but recent application to the context of education illustrates that CQ has the potential to enhance understanding of not only faculty–student interactions but also theories on leadership, student development, and organizational culture.

The development of the CQS advances the study of cultural competence by providing a valid, reliable survey instrument that works in a variety of contexts, including business, government, and education. In order to advance the application of CQ to the context of higher education, scholars should develop a version of the CQS tailored to educational settings. A customized education-

based version of the CQS will not only allow for future assessment of faculty, but colleges can also use the modified version of the CQS to assess global student learning outcomes related to cultural competence and student equity plans. Government and business have asked higher education to develop graduates with intercultural competence so that they can be competitive in the globalized 21st century (AACU, 2008, 2013); however, little systematic research has examined whether college graduates have the cultural competence skills necessary (Clifford, 2004). Adapting the CQS to domestic educational settings has the potential to provide a valuable assessment tool for higher education's global student learning outcomes.

Integrate CQ and Conflict Management into Higher Education Curriculum

Although challenges related to diversity and conflicts are no stranger to higher education, these subjects are often lacking in the curriculum of higher education. Academic disciplines such as communication studies have already developed rich curriculum on intercultural communication and conflict management that can either serve as a model for higher education or offer the opportunity for cross-discipline study. There are several ways higher education leadership programs can incorporate CQ and conflict management into existing coursework. First, the framework of CQ provides a theory-backed, empiricism-based approach that can fill the gap of current theoretical approaches used in higher education. Second, a CQ-based approach to the study of conflict management in higher education can provide educators and future leaders with the skills necessary to succeed in the evolving landscape of the community

college system. College leaders have identified conflict management training as the single most important skill educational leadership programs should emphasize (Brown, Martinez, & Daniel, 2002). Moreover, CQ and conflict management should be reinforced on local college campuses with ongoing cultural diversity professional development for students, faculty, and staff.

Establish Institutionally Supported Ongoing Professional Development

As Bensimon (2007) astutely observed, "When practitioners lack knowledge of their students' cultural lives, they are severely limited in their capacity to adapt their actions and be responsive to the particularities of the situation as these individual students experience it" (p. 453). Although the faculty members in this study demonstrated high levels of motivational and metacognitive CQ, without the corresponding knowledge of student cultural backgrounds to provide a foundation, faculty may lack the ability to transfer their motivation and strategy to appropriately and effectively engage students. The lack of knowledge about student cultural backgrounds not only affects faculty–student interactions but also has long-term implications for the development of campus initiatives designed to serve students. In California, the state has passed AB 2558, and the Student Equity Plan is mandating progress in access and equity for diverse student populations. Local colleges must use this opportunity to provide the professional development necessary for faculty, staff, and administrators to advance student success and narrow the student achievement gap. Colleges should integrate cultural intelligence and conflict

management training into new-faculty orientations, part-time faculty training, ongoing campus flex activities, and higher education certificate programs. Training in CQ and conflict management may improve faculty engagement of culturally diverse students. Faculty experiences, such as travel outside of the United States, the number of languages spoken, and academic training are significant predictors of CQ, thus reinforcing the basic need for inclusive cultural competence training for community college faculty, staff, and administrators. There are numerous avenues for on-campus diversity initiatives. On-campus diversity training can benefit from inviting diversity experts to campus to conduct training, but such training also would benefit from in-house faculty experts conducting ongoing campus workshops. Using the four factors of CQ, on-campus diversity initiatives should identify educational issues that stem from cultural differences, develop culturally informed education practices, and advance culturally informed education strategies to promote success.

Develop Student-Driven CQ and Conflict Management Initiatives

Aikenhead and Jegede (1999) coined the phrase "cultural border crossing" to describe what happens to students when they move from their personal lives to the world of school and the often-accompanying culture clashes they experience. In order to facilitate this transition, and to encourage the development of cultural competence in students, colleges need to embrace student-driven initiatives that celebrate diversity. Colleges should actively provide students with opportunities for culture and conflict enrichment through workshops (such as CQ, conflict management, and leadership training), campus activities

and events celebrating diversity, and coursework. Part of this initiative should be to include students in professional development activities on CQ and conflict management whenever possible. Previous research has established that exposure to even one diversity course has positive effects on student cognitive development (Bowman, 2009), and exposure to general college diversity promotes civic engagement (Bowman, 2010). Furthermore, through their own experiences and perspectives, students have the ability to inform campus diversity initiatives. All students should be considered when attempting to develop a campus climate that celebrates diversity, so that nimble "cultural border crossing" is practiced by all members of the community.

Summary of the Dissertation

The purpose of this study was to discover if a relationship exists between CQ and conflict management style preferences for community college faculty who work with culturally diverse student populations. The results of this study indicate that community college faculty members have moderately high levels of the four factors of CQ. Of the four factors of CQ, motivational CQ was the highest and cognitive CQ was the lowest. Factors such as number of languages spoken, academic discipline, and travel outside of the United States were predictors of increased CQ. Faculty characteristics of academic discipline, years teaching, and gender were predictors of conflict management style preferences. The findings in this study also indicate that the four factors of CQ correlate with faculty conflict management style preferences. Community college faculty members report relying heavily on an integrating approach to conflict

management. Based on the findings of this research study, there are four recommendations: expand research on cultural intelligence and conflict management within domain of higher education, integrate cultural intelligence and conflict management into higher education curriculum, establish institutionally supported ongoing professional development in cultural intelligence and conflict management, and develop student-driven, campus-level CQ and conflict management initiatives. These recommendations for future research and action are in line with the multiple missions of the community college system and are designed to serve the ever-evolving student population.

Not much has changed since Shulock (2001) rallied over a decade ago that "leaders in the California community colleges need to understand the enormous diversity in the student body in terms of ethnicity, age, language, preparation for college work, learning styles, and educational goals" (p. 4). This call for action is in line with the AACC (2006, 2015) core values, which affirm diversity as essential for an enriching educational experience and seek to foster a culture of equity and inclusion. Thus, there is no question that higher education must take the appropriate steps to equip our faculty to effectively serve the burgeoning diversity of our community college student populations. Developing CQ and conflict management skills in faculty will help community colleges embrace their mission of providing a student-centered approach to meet the needs and promote the success of our culturally diverse population.

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APPENDIX A

DEMOGRAPHIC SURVEY INSTRUMENT

Part I: Please provide the following demographic information:

1. What is your gender?
   - Female
   - Male
   - Decline to state

2. Which race/ethnicity best describes you?
   - Asian / Pacific Islander
   - Black or African American
   - Hispanic or Latino
   - Native American or American Indian
   - White
   - Multiethnic
   - Other

3. Education: What is the highest degree or level of school you have completed? *If currently enrolled, highest degree received.*
   - Trade/technical/vocational training
   - Associate degree
   - Bachelor's degree
   - Master's degree
   - Professional degree
   - Doctorate degree

4. Age: What is your age?
   - 18-24 years old
   - 25-34 years old
   - 35-44 years old
   - 45-54 years old
   - 55-64 years old
   - 65-74 years old
   - 75 years or older

5. In what academic discipline do you currently teach? (Drop down menu from the California Community College Academic Discipline Minimum Qualifications List)

6. How many years have you taught in the community college system, including years served as part and full-time faculty?

- 0-5
- 6-10
- 11-15
- 16-20
- 20 +

7. Have you received any form of cultural diversity training in the past two years at your institution?

- Yes
- No

8. How well prepared do you feel you are to teach/work in a racially/ethnically diverse environment?

1	2	3	4	5	6	7
Not prepared						Very Prepared

9. How many languages do you speak at a fluent/proficient level?

- 1
- 2
- 3
- 4
- 5 or more

10. How often have you travelled outside of the United States?

- never
- 1-5 times
- 6-10 times
- More than 10 times

11. Have you ever experienced a *disagreement or conflict* with a student over the following items (choose all that apply)?

- Grading issues (exam, paper, final grade)
- Lack of preparation for class
- Late paper submission
- Attendance issues
- Tardiness
- Cheating/plagiarism
- Problems related to group work
- Student perception of unfair content/items on exam
- Student perception of unfair scoring
- Student unclear of course scheduling and due dates
- Student challenging curriculum
- Student unclear of assignment requirements
- Student provided unacceptable excuse
- Student interpersonal conduct (rude, insulting, disruptive)
- Student perception of discriminatory/prejudicial treatment
- Student behaves in discriminatory/prejudicial manner towards other students/faculty
- Other

APPENDIX B

CULTURAL INTELLIGENCE SCALE

To Whom It May Concern:

I am writing to request permission to use the Cultural Intelligence Assessment for my dissertation research. I am a doctoral student in the Educational Leadership Program at California State University, Fullerton. This past February I had the honor of becoming a Level 1 Cultural Intelligence Certified Trainer under the guidance of David Livermore.

After reviewing literature cultural intelligence, I believe that the CQS is the most appropriate for my line of research. My research is examining the relationship between levels of cultural intelligence (high, moderate, low) and preferred styles of conflict management by faculty in culturally diverse academic settings.

I am also requesting permission to modify the questionnaire as needed (by the analysis of field test data with my participants) by modifying existing items to fit the specifics of my research objectives and subsequent activities.

Full credit will be given to the authors of the CQS as the source of the items that I elect to use in my research both in my dissertation and in any academic manuscripts that are produced from my research and subsequent activities.

Your support of this research project is greatly appreciated. Please let me know if there is additional protocol that I need to follow to receive permission to use the CQS. If you have any questions, you can email me at ahnagao@csu.fullerton.edu or call me at 714-309-3440.

Sincerely,
Angela Hoppe Nagao
Doctoral Candidate, CSU Fullerton

APPENDIX C

RAHIM'S ORGANIZATIONAL CONFLICT INSTRUMENT II

Dear Dr. Rahim:

I am writing to request permission to use the Rahim Organizational Conflict Inventory for my dissertation research. I am a doctoral student in the Educational Leadership Program at California State University, Fullerton. My dissertation is examining conflict management styles of communication college faculty in relation to levels of cultural intelligence.

After reviewing literature on conflict management, I believe that the ROCI-II is the most appropriate for my line of research. My research is examining the relationship between levels of cultural intelligence (high, moderate, low) and preferred styles of conflict management by college faculty in culturally diverse academic settings.

I am also requesting permission to modify the questionnaire as needed (by the analysis of field test data with my participants) by deleting items, adding items, and/or modifying existing items to fit the specifics of my research objectives and subsequent activities.

Full credit will be given to the authors of the ROCI-II as the source of the items that I elect to use in my research both in my dissertation and in any academic manuscripts that are produced from my research and subsequent activities.

What is the cost for using the ROCI-II for dissertation research with a population of around 500 participants?

Your support of this research project is greatly appreciated. Please let me know if there is any additional protocol that I need to follow to receive permission to use the ROCI-II. If you have any questions, you can email me at ahnagao@csu.fullerton.edu or call me at 714-309-3440.

Thank you for your time and consideration.

Sincerely,
Angela Hoppe Nagao
Doctoral Candidate, CSU Fullerton

APPENDIX D

LETTER OF INFORMED CONSENT

Dear Colleague,
I am writing to ask your help in advancing research on how community college faculty engage culturally diverse student populations. My name is Angela Hoppe Nagao and I am a faculty member in the department of Speech Communication at Cerritos College. I am also a doctoral student under the direction of Dr. Jerome Hunter at California State University, Fullerton. I am researching the impact of levels of Cultural Intelligence (CQ) on community college faculty conflict management styles.

I know faculty members are very busy this time of year, but a few minutes of your time will greatly help me with my study. You were selected as one of a small group of faculty because of your position as a full-time faculty member in the California community college system. Your involvement in this study consists of taking 10-20 minutes to complete a 60-question survey. Would you please fill out the survey in its entirety? Please answer the questions based on your interactions with your students. Your participation is very important to the success of this study.

Win an iPAD: Although there is no compensation for participation, individuals who complete the entire survey will be entered into a drawing to win an iPAD Air. Survey participants may add their name and contact information at the end of the survey to be entered into the random drawing. The data for the drawing will be removed from the survey data upon download in order to maintain anonymity of participants.

Purpose of the Study: This research will contribute to our understanding about how faculty members interact with culturally diverse student populations. Improving CQ and conflict negotiation skills may help close the student achievement gap and promote culturally intelligent leadership on community college campuses. This study may be helpful to inform best practices and professional development opportunities on your campus.

Benefits and Risks: Participants may benefit from increased understanding of intercultural interactions and conflict management styles. Participants may gain further understanding and information that may be helpful to future faculty student interactions.
This protocol contains no foreseeable risks. It may be possible, as a result of participating in this survey, that you will have more of an awareness of unpleasant thoughts associated with intercultural interactions and conflict management.

Confidentiality: Research records will be kept confidential to the extent allowed by law. Data will be kept on a password protected computer system. Digital records will be kept indefinitely. Hard copies will be shredded after three years. Results will be used for publication and presentation purposes.

The researcher will take precautions to protect participant identity by not using the names of participants or schools in writing the dissertation or follow up publications. To ensure anonymity a number of safeguards in handling the data will be used. First, dating coding will involve the use of numbers to identify schools and results. Second, Qualtrics survey software enables the anonymizing of respondents.

Right to Refuse: This survey is voluntary and you may withdraw at any time without penalty or loss of benefits or services. You may also choose not to answer any question with which you are not comfortable.

Contact information: If you have any questions or comments, please feel free to contact me at ahnagao@csu.fullerton.edu. You may also contact my faculty advisor, Dr. Jerome Hunter, at jehunter@fullerton.edu. If you have questions about the rights of human research participants contact the CSU Fullerton IRB Office at (657) 278-7640 or irb@fullerton.edu.

Conflict of Interest: As the researcher of this study, I have no financial (or otherwise) conflict of interest relating to results of this study.

Consent Clause: I have carefully read and/or I have had the terms used in this consent form and their significance explained to me. By proceeding with this survey online, I agree that I am at least 18 years of age and agree to participate in this project. You may print out a copy of this consent form to keep.

Your participation will greatly help me with this study. Many thanks in advance!

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