Teachers' Beliefs and Their Manifestations:

An Exploratory Mixed Methods Study of Cultural Intelligence in Pedagogical Practice

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Dedication

This paper is dedicated to the teachers and students of my study site. Your words and experiences are the flesh and bones of this study and make it real for teachers, teacher educators, and future researchers. This paper is dedicated to the teachers who go into classrooms every day and care about the children they teach.

Abstract

This study utilized mixed methods to investigate the beliefs and practices of 18 classroom teachers within a single school site and explored the applicability of Cultural Intelligence (CQ) to unpack the teachers' navigation of cultural diversity within their classrooms. The study employed a demographic survey, CQ assessment instrument, semi-structured interviews, and classroom observations to address the four research questions: How do teachers at different levels of CQ development teach culturally diverse students? How do teachers at different levels of CQ development enact intercultural capabilities? To what extent does the construct of CQ align with the beliefs and practices of effective culturally relevant teachers? What is the nature of the relationship between CQ and culturally relevant pedagogy? The CQ assessment score data was utilized to differentiate and categorize participants into high-, medium-, and low-CQ groups. The groups interview and observation data were analyzed for differences, if any, between groups, convergence and divergence with the CQ construct, and applicability of CQ to understanding teachers' beliefs and practices. The results present some convergence with the CQ construct and differences between teacher CQ groups in regards to teachers' beliefs and practices with cultural diversity in their classrooms. Teachers within the high-CQ teacher group expressed more nuance understanding of culture and its role in teaching than their lower-CQ colleagues. Teachers in the high-CQ group also enacted more classroom practices that were closely aligned with culturally relevant pedagogy than their lower-CQ peers. The research may indicate a potential new direction for preparing teachers to understand the role of culture and navigate cultural diversity within their classrooms.

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CHAPTER 1

Introduction

Prelude

Today I am observing the classroom of a young middle school reading teacher. Their dark brown hair is pulled back into a pony tail and they are dressed in stylish casual clothes and Toms. The teacher is energetic and constantly moving in the classroom, as if in a rush to fit all of the day's content in, and the class typically moves from activity to activity without delay or wasted time. By the school's standards, this teacher is a seasoned veteran having taught in this school for seven years after being placed here for Teach for America. The teacher uses software on their computer to track classroom behaviors and frequently uses positive behavioral intervention and supports (PBIS) with rewards of computer or free time for the students. The room walls are covered in student resources.

Their classroom décor is all about their students with resources covering the walls and filling the bookcases. When you walk into the classroom, the right wall above the whiteboard has the course goals in big letters. Over the digital whiteboard math terms are grouped by color. On the wall opposite the door is a word wall that the teacher updates every unit. The words are in bold letters with definitions underneath. Some of the words are covered up today by a large piece of black roller paper since the students have a test. The class's readings and daily current events activities coincide with the word wall.

In the left corner is a reading area with bean bag chairs, an Ikea arm chair, cushions, and book shelves with paperback sets arranged by reading level. A large bookcase dominates the rest of the wall—filled with text books, and fiction and non-fiction books arranged by Lexile level in a sort of mini library created by the teacher. The back wall has a set of low work tables with a row of Macintosh computers. The bulletin board above the computers is covered in green and blue construction paper. On the bulletin board are posters for student recognition such as "Math

Masters" and "Terrific Time-on Taskers" with note cards with student names beneath them to celebrate their progress in class.

Today's class starts with pictures of the day drawn from a newspaper website. The students shout out responses to the teacher's questions about the pictures' events or people. The teacher asks follow-up questions periodically and selects students by drawing popsicle sticks with students' names written on them out of a small sea foam green garden pail. Today, a student wants to talk about the police shooting that happened not far from the school four days earlier. An unarmed African-American man was killed by a police officer and Black Lives Matter protests followed at the police precinct. The teacher says to the student "[we] haven't talked about [name of the African-American man] in here yet" and then tells the student that there is a lot that we do not know. The student persists with their questions about the shooting until a student changes the topic to the terrorist attacks in Paris and ISIS.

Later in class, the teacher disciplines the same student who had the questions about the shooting for talking over other students in class. The scolding is immediate and sharp. At the end of class, the teacher approached me and told me how they were trying a new discipline strategy—the student they disciplined was an African-American boy. The teacher tells me later that they were told during a meeting by the assistant principal that the quick and sharp reprimand works for this population and that there needed to be a re-establishment of the relationship in the next 30 seconds. While we are talking, the student comes back to ask the teacher for help with finding a book. Earlier, he asked the teacher to see who was first logging into the reading software. The teacher tells the student that they will help him and touches the student on the shoulder; the relationship seems to be repaired. The teacher confides to me that they do not like this strategy and that it feels "off" to them. They don't want to be harsh but they are trying it.

As we talked, I asked the teacher if it would work with some of the other students—and I pointed to the two girls who sit at the front of the classroom. The teacher said no, and wondered if

it was because they were raised by white mothers. The teacher then thinks out loud about perhaps it is just finding out what communication norms work for each students as opposed to blanket statements about Black mothers do this and white mothers do this. Later in the day the teacher found me in my usual space in the school's media center office and we chatted some more about their classroom and what happened. The teacher related to me more about the assistant principal's advice, in particular, that care may look different to some kids than what teachers may understand or have experienced. In this way, according to the assistant principal, the quick and direct reprimand may look like care to the student. As our talk ended, the teacher seemed to be weighing the advice of the administrator and their recent experience in the classroom.

During the next day's current events, the students have questions about Allah, Islam, and ISIS but the teacher rushes past their queries saying "we will just see" and then moves to the class reading leaving the student questions and the lingering topic of the police shooting from yesterday unresolved. The teacher and I talk about the current events at the end of the class period and the teacher tells me that they are worried about how to engage with issues like terrorism or Black Lives Matter both in terms of their preparation and potential bias. As a result, they tell me that they just try and stick to the facts. In terms of the shooting, they express that more should be talked about it but perhaps more in the older grades and that they are not entirely sure how to bring it up in class. As our conversation winds down, the teacher expresses that they care about fixing the achievement gap and that is why they got in to education and teaching at this school. They share with me that it felt like this is where they could make a difference. They confide in me their frustration with some of her peers who have "All Lives Matter" on social media (Facebook in particular), how they can hold these views and that it must affect how they come to work with their students and wonders why they are at this school (TF observations, November 19 and 20, 2015).

These interactions over two days in November with a teacher at the research site in many ways exemplify the struggles in United States (US) education practice and scholarship, especially in regards to how teachers can best navigate cultural differences in their classroom, teach content that is relevant to their students, and help their students engage in critical evaluation of sociocultural issues. The experience of the teacher is also typical as they expressed their reason for entering teaching was to make a difference in students' lives and raise achievement. This is a teacher who cares about their students and puts considerable effort into their teaching; however, the complexities of the classroom and of the issues leave them feeling uncertain as to how best to proceed. In some ways their situation can be looked at as a teacher with good intentions, an interest in the issues, but obstacles that hinder the execution of their goals.

Statement of the Problem

Many scholars in US education point to current disparities in educational opportunities and achievement between demographic groups, increased diversity in the students attending public schools, and a teaching corps that remains overwhelmingly white, suburban and middle class (Gay, 2009, Gay & Howard, 2000; Ladson-Billings, 2009; Moule, 2005). Since the 1980s, many scholars in the United States have addressed the need for teachers to be better equipped to meet the pedagogical needs of the diverse students and how to communicate with the communities in which they work in order to drive achievement (Gay, 2000; Ladson-Billings, 1995; Villegas & Lucas, 2002). To address the disparities in academic achievement between white students and their non-white peers, and the cultural mismatch between teachers and students, education researchers and teacher training programs have focused attention on developing increased awareness of cultural differences, incorporating culturally diverse materials into their curriculum, building critical consciousness of societal and institutional inequality, and encouraging self-reflective practices to address educator attitudes about difference.

In addition, calls for schools to increase students' intercultural competence—awareness of culture combined with cognitive, affective, and behavioral capabilities to effectively negotiate intercultural situations—to meet the needs and challenges of globalization in education and work resound in both the popular and scholarly literature (Beard & Hill, 2008; Binkley, Erstad, Herman, Raizen, Ripley, Miller-Ricci, & Rumble, 2012; Kay & Greenhill, 2011) and in curricular initiatives such as developing 21st century skills. The incorporation of an intercultural competence dimension to the 2018 Programme for International Student Assessment (PISA), combined with the increased prevalence and reach of international schools with expressed intercultural missions, led by the International Baccalaureate (IB), into non-Western contexts raises important questions about what these students learn, how educational programs imbue them with intercultural concepts and skills, and whether teachers are equipped to meet this challenge.

In both of these contexts teachers are being increasingly asked to develop their intercultural competence in order to work effectively with diverse students (Banks, Cochran-Smith, Moll, Richert, Zeichner, LePage, Darling-Hammond, Duffy, McDonald, 2005, p. 237) and to teach students how to understand and navigate cultural differences. The task of developing teacher intercultural competence raises significant questions. What is known about teachers' levels of intercultural competence? How prepared are teachers to teach their students about intercultural competence? The literature on how teachers conceive of cultural differences, understand their own attitudes towards difference, and how they can develop these capabilities is limited. My dissertation research seeks to answer these questions. In preparation for this research, I explored three initial questions in the scholarship on teaching and culture:

1) How do scholars approach individuals' ability to understand and engage with cultural differences?
2) How do current models can be used to assess and develop intercultural competence?

3) What are the potential implications of these models on teacher professional development?

Purpose of the Study

My intention in this study is to understand how highly interculturally competent teachers conceive of cultural differences and how they navigate these differences in the complex and multifaceted act of teaching. Through this study I wished to add to the scholarly body of literature on Cultural Intelligence (Earley & Ang, 2003; CQ), and more specifically to address the gap on qualitative studies on this construct. Existing validation studies for CQ form a robust platform for exploration into how CQ is experienced and practiced by teachers. My study also endeavors to make a practical contribution to the practices of classroom teachers by unpacking the behaviors and the thinking behind the behaviors so that teachers can develop their own intercultural capabilities. I also hope that this study may contribute to discourse about how in-service and pre-service teachers may be best prepared to engage with the cultural diversity in their classrooms.

Research Questions

There are four key questions addressed in this study.

1) How do teachers at different levels of CQ development teach culturally diverse students?
2) How do teachers at different levels of CQ development enact intercultural capabilities?
3) How does the construct of CQ align with the beliefs and practices of effective culturally relevant teachers?
4) What is the nature of the relationship between CQ and culturally relevant pedagogy?

Similar to the study conducted by Ladson-Billings (1995, 2009), in which the teaching practices of highly successful teachers of African-American elementary school teachers were examined in order to formulate a theory of culturally relevant teaching, this study seeks to explain and demonstrate how these high CQ teachers build relationships with culturally diverse students and engage them in learning. Also similar to Ladson-Billings' (1995, 2009) study, this study also examined the beliefs and practices of a group of teachers, in this case teachers with high intercultural competence as measured by the CQ self-assessment, a rigorously validated assessment instrument with high predictive validity. These teachers' beliefs and classroom practices formed an initial model for how CQ may be enacted in the classroom and its potential intersectionality with culturally relevant pedagogy. The final research question addresses this intersection and builds on the first research question which seeks to begin the compiling of qualitative data about CQ's applicability and use in education. As of the time of this dissertation, the majority of the research on the construct has been quantitative validations studies and studies applying the CQ construct in non-educational contexts. This study seeks to explore CQ's potential applicability to the professional development of teachers and to use CQ as a means unpack the nuanced practices of teachers as they teach their culturally diverse students.

Study Significance

This study is significant because existing models to help teachers navigate cultural differences are inadequate and do not address the underlying understandings and meanings teachers assign to cultural differences. Addressing how teachers understand cultural differences, providing a means of assessment paired with a framework for conceptualizing how to navigate cultural differences, plus real-world examples of high CQ teachers has deep implications for the preparation of teachers in the classroom and teacher candidates. Through this research, I hope to better enable teachers to make classrooms, lessons and curricula relevant to students, aid in their

ability to build relationships across the pervasive demographic mismatch between teachers and students.

Through this research I seek to understand why some teachers are able to connect with students, as this is an essential part of creating inclusive and welcoming schools, and thereby also addressing academic learning. My questions seek to get at how these teachers are able to build these connections and then to help other teachers and teacher educators develop these capabilities. While existing models strive to help teachers connect with students, create relevant curriculum, develop social justice mindset, it fails to address and assess how teachers think about, understand, and experience cultural differences in their schools and communities. This study proposes to identify high CQ teachers and unpack their understanding and classroom practices in working with culturally diverse students.

Developing teacher intercultural competence is only one facet of addressing achievement gaps, affirming culture, or developing these capabilities within students; addressing broader questions around closing the achievement gaps is beyond the scope of this paper. Additionally, larger scholarly debates concerning whether intercultural competence can be assessed or developed, how culture can be known, or the assessment of particular pedagogical approaches are topics beyond the space that this study allows.

Definition of Terms

Terms such as *cultural competence* and *intercultural competence* are used to describe the capabilities individuals need to work with populations different than themselves and are used variously in the studies. While there are some differences in the context in which they are applied, the terms have considerable commonality. Particularly prevalent in the first body of literature which focuses primarily on teachers working within the United States public schools, scholars refer to *cultural competence* as the ability of teachers to communicate effectively with and teach

diverse student populations, develop empathy in connecting with communities, as well as build "certain personal and interpersonal awarenesses and sensitivities, learning specific bodies of cultural knowledge, and mastering sets of skills that, taken together, underlie effective cross-cultural teaching" (Moule, 2005, p. 5). Moule and other authors discussed within this paper liken the development of cultural competence to a journey that requires awareness of the self in addition to gaining cultural knowledge.

Similarly, the concept of *intercultural competence* has been defined in the literature, but variously refers to the "critical knowledge and skills that enable people to be successful within a wide range of culturally diverse contexts" (Cushner, 2011, p. 606) and includes behavioral and affective components. Particularly within the initial literature on the DMIS and IDI, scholars refer to the response individuals have to difference as *intercultural sensitivity*; however, the term is largely used to denote an individual's attitudes and worldview. Despite the variance in definitions, "many of the disciplinary roads lead to a similar place" (Bennett, 2009, p. 122), and in this paper the term *intercultural competence* will be used across the literature to refer to "appropriate and effective communication and behavior in intercultural situations" (Deardorff, 2009, p. xi).

Origins of the Study

My initial interest in pursuing this research topic originated during my time in India while on Fulbright Distinguished Award in Teaching grant. While interacting with other expatriates, I noticed that some individuals adapted and thrived in their new context while others were miserable, frustrated, and could not wait to get back to their home countries. What I wanted to know was what enabled some people to adapt so easily and if it could be developed in others. I started envisioning this at the time as a sort of ability or capability that could ultimately be developed through training. Through coursework at the University of Minnesota I was introduced to the scholarship on intercultural competence and assessment measures that began to address my

questions. It is this literature that informs the latter two bodies of scholarship in chapter 2 of this study.

The application of intercultural competence in teaching emerged while teaching a course on human relations in education and while serving as a teaching fellow in a year-long teacher education course. Both courses focused on preparing teachers to navigate cultural difference in their future classrooms. Why some teacher candidates struggled with, or even resisted, course content was a topic of frequent discussions with students, other teaching fellows, and the lead instructors of the course. These discussions led me to question and examine the limitations of current frameworks for teacher preparation for navigating cultural differences. During one course session in the spring of 2015, one of the lead instructors (who also serves my advisor) and I spent time discussing with the teacher candidates the limitations of the framework they were immersed in and presented alternative models for how individuals develop intercultural competencies and the use of intercultural competency assessments. At the close of our lesson, we informally polled the students about whether they might find the assessments and frameworks useful in developing their abilities to connect with students. Out of over 120 students in the classroom, all but four indicated their interest. At the next meeting of the professional learning community that I lead as part of the year-long course, the teacher candidates were eager to learn more about the assessments and how they could be used to better enable them to more effectively connect with culturally diverse students and communities in their schools.

I continued to probe into teacher candidate sentiments about the usefulness and applicability of intercultural competence models and assessments the following fall. In one of my teacher licensure classes I conducted a small study which situated intercultural competence research alongside scholarship on culturally relevant pedagogy as a potential complement to the professional development of teacher practices. I had hoped that this might also help students turn a reflective gaze towards their own beliefs and their understanding of their culturally diverse

students. Overwhelmingly the teacher candidates found the pairing personally useful and relevant to their development of practice. The results of this investigation are currently in press (Kennedy, in press). The experience in India and continued conversations with teacher educators and candidates drive my interest in this study and the hope that his study will make a difference in how teachers connect with the students in their classrooms.

The relevance of this research is underscored by the pressing need for teachers to understand and value the experiences, knowledge, and perspectives of their culturally diverse students. At home, the demographic data on students and teachers is clear. As student populations change as a result of diasporas, globally mobile workforces or changing patterns in urban populations teachers need to be equipped to successfully work with culturally diverse populations. This need is especially acute since teacher demographics remain static despite the increasing cultural diversity in the school populations. Combined growing achievement gaps between cultural groups (Banks, Cochran-Smith, Moll, Richert, Zeichner, LePage, Darling-Hammond, Duffy & McDonald, 2005; Ladson-Billings, 2006; Noguera, 2008; Howard, 2015) and research findings which show teachers' poor capabilities in understanding and working with cultural diversity (Mahon, 2006; DeJaeghere & Cao, 2009; Yuen & Grossman, 2009), there is great urgency to research intercultural competence training for teachers.

CHAPTER 2

Review of the Literature

Introduction

The classroom is warmly lit by white string lights strung through the trusses in the ceiling, upright torchiere lamps, a desk lamp and an overhead shaded hanging light. The front of the room is covered by a whiteboard. The windows above it are covered in student paintings—a unicorn, Pegasus, dragons. The side of the room has a window to another classroom. Paper covers the other side of the glass and the teacher has used the glass to write the class schedules, assessment dates, and school schedule. At the back of the room are two large book cases with materials and a quarter map on top. Next to the book cases are a row of computers. Two framed small story quilts hang over the table. On the other side wall is another bookcase filled with children's books and foreign language dictionaries. A book case is filled with more resource books and photos of the teacher's family—their partner and two children. On top of a metal cabinet by the door sits a framed batik painting of two women carrying vessels on their heads. The students are seated at tables facing the front whiteboard. There are 14 students in this small and comfortable room and the class is comprised of students who are almost entirely from Mexico and a few from the Republic of Honduras. One student is from Togo which means that only the teacher and this student are the only non-native speakers of Spanish. The students are a mix of grades, spanning 6th through 9th. The students in this class have been in the country from under a year to just one month. The teacher is fluent in French and has lived in francophone Africa while working on development projects prior to their teaching career.

In today's class, the students work on breaking down parts of a story they read about a family with six daughters and who are now expecting a son. One group breaks down the story on individual whiteboards and reads them to the other half of the class. As the students read, the teacher's speech toggles back and forth between English and Spanish. Upon the teacher's

admission, the teacher's Spanish is developing alongside the students' English proficiency and they learn from each other. I have watched this teacher speak in Spanish and then pause to ask students how to say a phrase or conjugate a verb. The students unfailingly and enthusiastically jump at the chance to teach.

During the class, the students speak to the teacher in Spanish and English, and use Spanish almost exclusively to help each other with explanations and meaning in the classroom. At one point to talk about whether the family is lucky to have six daughters, the teacher struggles with the word for lucky, she asks the kids for help. She repeats the phrase and uses it with a student. The classroom has the feel of a community as both teachers and students engage in helping each other learn. The teacher frequently sits at the student tables so they are at the same height as the students. The teacher jokes with the students, they joke back. There is a lot of giggling in the classroom in between activities. During a transition moment in class, a student sticks all the dry erase markers together in a train. The teacher jokes back that they will have to "use my superhuman strength" and separates them. The teacher makes eye contact with the student and the child beams. When the teacher sets up for the activity, the student sticks the markers back together again. This is a game between the two of them (LD observation, December 1, 2015).

The teacher in the above vignette fluidly shifts back and forth between social relationships, with their students, at times being the formal instructor and authority while at others the convivial adult community member and fellow language learner. This teacher also exhibits and ability to shift between English, French, and their newly developing Spanish. In their interview, the teacher possessed a wealth of knowledge about student home lives and experiences with issues such as immigration status and trauma, and also formal academic knowledge about the role of language in understanding and making meaning. As I watch them teach I try to picture myself as a new teacher observing their classroom and how I would be amazed at the ease in

which this teacher navigates the cultural aspects of their classroom and potentially overwhelmed in wondering how I would ever be able to develop these capabilities.

I embarked upon this study to investigate how teachers navigate the cultural differences in their classrooms. I wanted to see how teachers connected with their students and created relevant lessons, perhaps to find my own set of "dreamkeepers" like those found in Ladson-Billings' (1995, 2009) groundbreaking scholarship and then to potentially tease apart how teachers developed their practices. I wondered about conceptualizing teaching as a pedagogical and intercultural act by utilizing knowledge from the field of intercultural relations in order to potentially help teachers understand themselves, their students, and the interactional space of their teaching practices.

To investigate the intercultural capabilities of teachers I examined several bodies of literature. Scholars in the first group conceptualize intercultural competence through a knowledge, skills, and attitudes model focused largely on increasing teachers' knowledge in order to develop sociocultural awareness, critical consciousness, and the ability to effectively serve as cultural bridges for their students and communities in which they teach. This approach, though widely used in United States' teacher education programs, lacks an undergirding theory for guiding or explaining the process by which individuals develop intercultural competence.

The second group of scholars bases their work on Bennett's Developmental Model of Intercultural Sensitivity (DMIS) and its accompanying intercultural assessment instrument, the Intercultural Development Inventory (IDI). Bennett's model provides a framework for understanding an individual's attitudes towards cultural difference and presents a developmental path for developing intercultural competence. Studies in this group consider both how the DMIS and IDI conceptualize and assess intercultural competence and how these have been used to assess and affect teacher intercultural competence.

Scholars in the third body employ a theory of how individuals understand and develop their capabilities in intercultural competence, but they utilize a model grounded in research on intelligence rather than constructivism. Scholars in the Cultural Intelligence (CQ) body conceive of intercultural competence within a four-factor model encompassing cognition, metacognition, motivation, and behavior. Similar to the DMIS, CQ includes assessment as a key component of its model. Unlike the DMIS, though, CQ does not present intercultural competence in a linear development model but incorporates a multifaceted model of factors that can be developed in individuals. Similar to the IDI, the CQ has been tested across a wide variety of individuals and contexts. Particularly salient for this exam is the testing conducted in non-Western contexts. The CQ model has been broadly employed in business and higher education settings and is supported by a robust empirical research base. My research proposes to be an early contributor to the body of CQ research on K-12 educational sites.

Developing the Intercultural Competency of Teachers

Knowledge, skills, and attitudes

The first group of scholars label their approaches differently—culturally relevant pedagogy, culturally responsive teaching, multicultural education—but they share similar beliefs about what teachers need to know, and the skills and attitudes teachers must possess in order to work with diverse student populations. The literature in this body is rooted in theories of social justice pedagogy, multicultural education, Freirean critical pedagogy, and constructivism, especially the multiple perspectives of knowledge and the role of culture and experience on knowledge.

In this body of scholarship, heavy emphasis is placed upon teachers' knowledge of cultural concepts, specific cultural knowledge of the groups that they will teach and the communities in which their schools are situated, as well as knowledge about social disparities and

inequality. From this base of knowledge, teachers act as cultural translators or bridges for students to decipher and navigate schools and institutions. Success in these models is predicated upon the ability of teachers' ability to be self-reflective about their position in society, to have developed a critical consciousness about schools and social institutions, and hold attitudes that accept and affirm students' culture and cultural identity (Howard, 2003 & 2012).

Ladson-Billings' (1995) foundational study of the teaching practices of eight exemplary teachers of African-American youth was built upon the broad social justice reforms in American teacher education and put forth a pedagogical theory to address the "specific concerns of educating teachers for success with African-American students" (1995, p. 466). In building her pedagogical theory, Ladson-Billings proposes *culturally relevant pedagogy* as a theoretical model that works to increase student achievement through effective teaching practices, "but also helps students to affirm their cultural identity while developing critical perspectives that challenge inequities that schools (and other institutions) perpetuate" (1995, p. 469).

Culturally relevant pedagogy as conceived by Ladson-Billings (1995) is based upon the practical concerns of teaching practice. Her theoretical model is rooted in the work of scholars who investigated grounded theory in educational research (Atkin, 1973; Glaser & Strauss, 1967; Lutz & Ramsey, 1974; Smith, 1978) and an action research approach (Cochran-Smith & Lytle, 1992; Elliott, 1991; Stenhouse, 1983; Zeichner, 1990) "where teachers look reflectively at their practice to solve pedagogical problems and assist colleagues and researchers interested in teaching practice" (Ladson-Billings, 1995, p. 470).

From her study of the eight teachers, Ladson-Billings conceived of a continuum of teacher behaviors along three propositions for cultural relevant pedagogy (1995, p. 478). In the first theme, culturally relevant teachers conceive of themselves as professionals who give back to the community through their profession. These teachers hold high expectations for their students and believe that all students can succeed. In the second theme, Ladson-Billings posits that

culturally relevant teachers build equitable social relations within the classroom fostering a community of learners and encouraging a collaborative classroom environment where students are responsible for each other's academic success and learning. The third theme embodies how culturally relevant teachers engage in the process of making meaning out of knowledge and help their students critically evaluate epistemological claims.

Geneva Gay's (2002) *culturally responsive pedagogy* continued Ladson-Billings' conceptualization of teacher behaviors for teaching marginalized youth, and advocated "using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively" (2002, p. 106). Similar to Ladson-Billings' culturally relevant pedagogy, Gay's model is also based on research (Au & Kawakami, 1994; Foster, 1995; Hollings 1996; Ladson-Billings, 1994) that demonstrated that students find schooling more meaningful and perform better when they are taught in a manner that is connected to their experience and culture (Gay, 2002, p. 106).

While Ladson-Billings focused on teacher attitudes, Gay (2002) prescribed a knowledge, skills, and attitudes model to help teachers cross cultural divides and work effectively with diverse student groups. The foundation of Gay's model is on teachers' explicit knowledge of general cultural knowledge—for example, how different cultural groups socialize gender roles (2002, p. 107)—and the skill required to translate knowledge into the three layers of curriculum: *formal* lessons, *symbolic curriculum*, and the *societal curriculum* (2002, pp. 108-109). Gay articulated that teachers must be aware of the power of symbols and messages such as "mottoes, awards, celebrations, and other artifacts that are used to teach students knowledge, skills, morals, and values" (2002, p. 108) and use these to reinforce their culturally responsive formal curriculum.

Gay stressed the importance of communication skills and teacher knowledge of cultural communication styles and how cultural elements affect interpersonal communication, thoughts

and construction of meaning (Cazden, John, & Hymes, 1985; Porter & Samovar, 1991). Gay recommends that teacher education programs instruct candidates about communication styles and how they intersect with such things as values, cultural nuance, body language and vocabulary (2002, p. 111) in order to serve as decoders and bridges to help students develop their critical capacity. Banks, Cochran-Smith, Moll, Richert, Zeichner, LePage, Darling-Hammond, Duffy, and McDonald (2005) built upon Gay's cultural bridging concept citing research on the method that found a positive effect on achievement of marginalized youth (Gandara, 2002; Irvine, 2003; Ladson-Billings, 1994). The research emphasis that teachers' development of knowledge of "self and others (students, parents, community) is an essential foundation for constructing, evaluating, and altering curriculum and pedagogy so that it is responsive to students" (Banks et al., 2005, p. 245) is of particular importance for this literature review.

Banks et al. (2005) stipulated that teachers must develop the capability to learn from their students in order to avoid essentializing or stereotyping the cultural groups of their students. Banks et al. advocate teachers' learning "how to learn from their students and members of the communities where they teach, borrowing strategies from anthropology and sociology" (2005, p. 247) in order to have more nuanced information about student experiences from which to work. Linked to constructivist conceptions of teaching, Banks, et al. advocated shared meaning making between teachers and students, combined with intercultural communication skills that enable teachers to make the curriculum relevant to the students and engage in dialogue with students and their communities.

Like Gay and Ladson-Billings, Banks et al. stated that development of a sociocultural consciousness is important for teachers in order to "realize that the worldview they may have grown up with is not universal" but a product of their experience within the context of such factors as class, gender, and culture (2005, p. 253). Developing this sociocultural consciousness enables teachers to understand multiple perspectives, to gain insight into how culture affects

interactions, and as a result create more "affirming and positive attitudes towards students" (Banks et al, 2005, p. 253). Sociocultural consciousness is linked to the attitudes Ladson-Billings (1995) found in her successful teachers, specifically teachers' ability to withhold judgment about students' abilities to learn.

Nieto's *multicultural education* model (2010) also focused on teacher attitudes and practices to act as bridges between sociocultural contexts and affirm students' cultures in order to help drive achievement (2010, p. 25). Nieto's model specifically emphasized the social justice aspects of teaching diverse students and reflects Freirean pedagogy as she defined multicultural education as "embedded in a sociopolitical context and as antiracist…and that is characterized by a commitment to social justice and critical approaches to learning" (2010, p. 26). Nieto's model contends that multicultural education is transformative for students, teachers and communities. Teachers undergo a personal transformation as they develop a multicultural perspective, moving to "create more productive ways of working with others" and then challenging policies and practices of schools (Nieto, 2010, p. 26).

In order to teach diverse students, Nieto states that teachers need to become multicultural first. Nieto views becoming multicultural as a process that entails a "profound shift in attitudes…putting into practice a multicultural view of the world" (2010, p. 177) combined with cultural-general and cultural-specific knowledge about the students and communities with which they will work. The unique contribution of Nieto's model is that teachers must not just have knowledge about their students but transcend their own worldview and "*identify* with them, *build* on their strengths, and *challenge* head-on the many displays of privilege and inherent biases in the schools in which they teach" (Nieto, 2010, p. 183).

Gay (2009) points to the need to address underlying beliefs in pre-service teachers. Like Nieto, Gay addressed the need for teachers to examine their beliefs and attitudes about cultural difference and the populations they will teach, as well as the values that undergird their teaching

practices and schools (Gay, 2009, p. 144). Also like Nieto, Gay characterizes this as a transformation where previously held beliefs are shed and new "beliefs that are more compatible with embracing and promoting cultural diversity in P-12 curriculum and instruction" (Gay, 2009, p. 144) take their place. To instill such a transformation, Gay pointed to her efforts to challenge and engage pre-service teachers' assumptions and beliefs about cultural difference with video analysis, critical readings, practice lessons and reflective writing assignments.

Although the scholars in this first body clearly establish the need for teachers to be interculturally competent and offer evidence of the benefits of their approach for students and communities, the approach lacks a unifying theoretical basis for how teachers develop this capability or any mechanism for evaluating their development. Sleeter (2011) contended, in her critique of culturally relevant pedagogy and teacher training, that in these models teachers are either assumed to hold the values of cultural acceptance and social justice or that knowledge of difference and sociocultural context are adequate enough to change their underlying attitudes or worldviews. However, how teachers engage with difference or the process by which they become more interculturally competent is not addressed by this body's knowledge, skills, and attitudes model. The model does not have a means to assess how teachers think about cultural difference, nor their values or attitudes about difference.

Addressing the lack of a theoretical framework and assessment measures, McAllister and Irvine (2000) suggest utilizing models that incorporate the process of developing intercultural competence and the underlying attitudes of teachers towards difference as a "framework for understanding resistance as well as providing appropriate support for effective interventions" (McAllister & Irvine, 2000, p. 4). Similarly, Cushner (2011) suggests that teacher preparation could borrow from intercultural relations' research on how individuals develop the capabilities to navigate cultural differences in order to help train teachers to engage with diverse populations in their classrooms. Cushner states that training must address the attitudes that teachers have about

difference and an understanding of how culture influences individuals' experiences before work can begin developing skills or changing social institutions (Cushner, 2011, p. 605). Additional models from intercultural relations that consider how individuals conceive of cultural difference and address the process by which individuals can develop the capabilities to be more interculturally competent will be discussed in the next two sections.

The DMIS, IDI, and teacher professional development

The second body of literature shares the knowledge, skills, and attitudes scholars' constructivist interpretation of the subjective meaning of experience and a foundation in a grounded theory approach. However, Bennett's Developmental Model of Intercultural Sensitivity (DMIS) provides a contrasting view of intercultural competence and provides a means to address the development of teachers' intercultural competence. Bennett (1986) sought to create a model to explain how groups would respond to intercultural training and posited a six-stage developmental model. The DMIS is based upon a phenomenological approach and conceptualizes both the subject's cognitive and metacognitive development about difference into its intercultural framework (Bennett, 1986; Bennett & Bennett, 2004).

Bennett's (1986) developmental model conceptualizes a progression of individuals' psychological and cognitive distance or tolerance towards cultural differences through six stages: Denial, Defense, Minimization, Acceptance, Adaptation, and Integration. Bennett characterized the six stages and divided them into the phases of ethnocentrism (Denial, Defense, Minimization) and ethnorelativism (Acceptance, Adaptation, Integration) and then offered strategies to develop individuals' capacity to progress to the next stage. Moving from Denial to Minimization is characterized by first a denial of difference, then superiority of one's own culture followed by a type of universalism where there is an awareness of difference but "they are experienced as relatively unimportant compared to the far more powerful dictates of cultural similarity" (p. 184).

In the latter ethnorelative developmental stages cultural differences are now respected and the conception of culture moves from a static object to a more fluid process actively created by individuals (p. 185). As individuals move to Adaptation and Integration they are better able to place themselves in other worldviews and then to ultimately assume difference into their identity. The training applications Bennett prescribes follow similar pattern moving from awareness of difference to increasingly complex cultural concepts and an unpacking of assumptions. Training "emphasizing the practical application of ethnorelative acceptance to intercultural communication" (p. 192) and increased development of empathy or application of intercultural communication skills to real world situations leads to cultural mediation and the end of the progression.

Bennett prescribed training applications follow a similar pattern moving from awareness of difference to increasingly complex cultural concepts and an unpacking of assumptions. Training to emphasize increased development of empathy or application of intercultural communication skills to real world situations leads to increased facility to reconcile and adapt to new cultural situations. Like Ladson-Billings and the scholars in the first body, increasing a person's experience with cultural difference and creating more sophisticated cultural categories produces a greater sensitivity to cultural difference. Increased awareness of one's worldview, Bennett contended, complements the categorization of experience as it enables individuals to "realize that one *is* construing in a particular cultural way" (1993, p. 25) within a field of other worldview alternatives.

The DMIS was created through a grounded theory approach, utilizing concepts from cognitive constructivism on the construction of experience and cognitive complexity as well as the ability to differentiate and sort experiences into increasingly refined and complex categories. In intercultural competence, Bennett applied this concept to explain the ability of some individuals to become more sensitive based on the increased complexity of their mental

categories regarding cultural difference (Bennett & Bennett, 2004, p. 73). The final concept Bennett borrowed from cognitive constructivism is experiential constructivism, which the DMIS translates as the "ability to have an alternative cultural experience" (Bennett & Bennett, 2004, p. 74) meaning that individuals are able to understand the worldview of other cultures and "gain the ability to create an alternative experience that more or less matches those of people in another culture" (Bennett & Bennett, 2004, p. 74). Bennett differentiated the DMIS from knowledge, skills, and attitudes models like the one stated by Gay (2002), Banks et al. (2005), and Nieto (2010). While Bennett agreed that a certain level of knowledge is necessary to understand a culture's worldview, it is more important that the obstacles of the prior stage are resolved (Bennett & Bennett, 2004). Thus, the DMIS focuses on underlying ideas or worldview and views knowledge, skills and attitudes as expressions of a particular stage in an individual's development (Bennett, 2004).

Bennett (1993) stipulated that the model contains cognitive, behavioral and affective dimensions, but that the separation "of the dimensions is not always clear for each stage, nor should it be since development is multidimensional" (Bennett, 1993, p. 26). Instead of a linear progression of knowledge influencing attitudes and then attitudes informing behavior, Bennett saw more complex and overlapping responses to difference working towards developing the ability to categorize and integrate cultural experiences. Similarly, though the DMIS presents a linear progression of movement through stages, Bennett was careful to state that it "is not assumed that progression through the states is one-way or permanent" (Bennett, 1993, pp. 26-27). However, Bennett also argued that since the DMIS is developmental model and addresses the way obstacles to cultural sensitivity are resolved, reverting back to prior stages is unlikely. Conceptualizing and categorizing differences is key in the DMIS as Bennett stated that differences "*once they are defined as cultural*, will be treated in more or less the same way as familiar differences" (1993, p. 27).

Bennett's developmental model formed the basis for the Intercultural Development Inventory (IDI) created by Hammer, Bennett and Wiseman (2003). The authors stated that while prior studies highlighted the importance of intercultural understanding, Bennett's DMIS "suggested an underlying theoretical framework…for conceptualizing intercultural sensitivity and competence" (Hammer, Bennett and Wiseman, 2003, p. 422). Hammer, et al. carried out a two-stage instrument development process, creating pilot instruments accompanied by interviews and assessment by Paige, Jacobs-Cassuto, Yershova and DeJaeghere (1999). Paige et al. assessed the IDI again in 2003. The 1999 study found the IDI to be a valid assessment of the DMIS and free from the influence of social desirability, while the 2003 study assessed for reliability and predictive validity. Paige et al. found the IDI to be reliable but that the factors did not fit exactly with Bennett's DMIS. However, the authors did find that the variables projected to predict intercultural development such as intercultural experience, language-culture study, friends and socialization in other cultural groups did "differentiate respondents' intercultural development in the predicted direction" (Paige, Jacobs-Cassuto, Yershova and DeJaeghere, 2003, p. 478) and with no social desirability bias. Paige et al. discussed some of the reasons for the lack of a complete match with Bennett's DMIS but overall found that "the factor analyses provide strong empirical support for the broader two-factor (ethnocentric and ethnorelative) structure of intercultural sensitivity that the IDI is purporting to measure" (Paige, Jacobs-Cassuto, Yershova and DeJaeghere, 2003, p. 483).

Hammer's 2011 study built on the earlier studies of Paige et al. (2003) and Hammer et al. (2003) and provided further validity testing of the IDI with expanded and more culturally diverse samples from the previous studies. In the 2011 study, Hammer refined the original DMIS model based on the results, and the data gathered served as the basis for the third version of the IDI. Hammer found that the findings from this study "complement previous results that demonstrated that the IDI also possesses strong content and construct validity across cultural groups" (Hammer,

2011, p. 474). To assess the validity of the IDI, Hammer administered version 2 of the IDI to large pool of 4,763 subjects from 11 cross-cultural samples. Non-native English speakers were given back translated copies of the IDI in their native languages. Through confirmatory factor analysis (CFA), Hammer found that the DMIS model had a good fit with the data collected from the IDI samples. Reliability coefficients from the data indicated good inter-item reliability for the DMIS scales, as well as scales for Developmental and Perceived Orientations, across the samples. The two scales are reflections of individuals' responses to the questions on the assessment measure. The Perceived Orientation score indicates individuals' personal assessment of where they fall on the Intercultural Developmental Continuum. The Developmental Orientation reflects their actual assessed worldview orientation (Hammer, 2009).

Research on Bennett's DMIS and the IDI in education consist of studies on the intercultural sensitivity of students (Straffon, 2003) and both in-service and pre-service teachers (Bayles, 2009; Westrick & Yuen, 2007; Yuen & Grossman, 2009). The studies on teachers' intercultural sensitivity are significant for this paper as they found teachers to be in the ethnocentric stages of the DMIS with tendencies to minimize cultural differences. Building upon these results are studies which addressed how teachers conceive of culture differences and the implications for staff training (Mahon, 2006) and two studies that examined the effects of a professional development program based on the DMIS (DeJaeghere & Cao, 2009; DeJaeghere & Zhang, 2008).

The study by DeJaeghere and Cao (2009) is of particular interest for this paper as it bridges research conducted on the effects of teacher in-service and pre-service training on teaching practices and conceptual models about the process of developing intercultural competence. In the study, a school district utilized Bennett's DMIS as a conceptual framework for its staff development program. The researchers initially administered version 2 of the IDI to 86 teachers from 7 elementary schools in the district prior to professional development. Flexible

site-based professional development activities based on the DMIS and IDI scores were implemented to increase teacher intercultural competence (DeJaeghere & Cao, 2009, p. 440). A follow-up IDI assessment was given to teachers between 2.5 and 3.5 years following a series of professional development workshops and activities.

Results of the preliminary IDI assessment indicated, like the other studies on teachers utilizing the IDI, that the district teachers' mean developmental scores (103.87) fell within the Minimization stage of the DMIS (85.00-114.99). Following the professional development activities, the researchers found significant increases in the mean scores of teachers (110.77), increasing one half of a standard deviation. The researchers analyzed the developmental scores for statistical significance, magnitude of effect size, and also utilized *t*-tests to examine the changes in specific variables such as gender, years of teaching experience and level of intercultural experience (DeJaeghere & Cao, 2009, p. 442). Analysis of the results between the two IDI assessments indicated that an "ongoing DMIS/IDI guided professional development initiative can considerably increase educators' intercultural competence" (DeJaeghere & Cao, 2009, p. 444). The researchers also stipulate the significance of their study on preparing teachers for working with diverse populations. The study demonstrated how a school incorporated a developmental model for engaging with cultural difference and matched it to its vision and programming for staff development. Pairing the DMIS and IDI assessment enabled teachers to conceptualize the process of developing intercultural competence and provided a means to assess this development.

Despite the empirical strengths of the DMIS and IDI and the success of interventions in educational settings, both the model and instrument do have limitations. Greenholtz (2005) raised the issue of cultural and linguistic transferability of the IDI. Noting that the IDI is back translated into languages besides English, Greenholtz questions whether the concepts of the instrument would also translate and thus ensure the integrity of the measure and its data. Specifically,

Greenholtz noted the differences in the data from a Japanese language version IDI he and his team created and administered to a sample (n=400) of native Japanese speakers compared to results from the original IDI study (Hammer, Bennett, & Wiseman, 2003). Greenholtz reported that his translation team struggled with items on the IDI, finding that some items "were conceptually nonsensical in Japanese culture, despite the fact that the words could be translated" (p. 86). Greenholtz cited similar difficulties in conceptual translation in two other studies on native Japanese language speakers (Yamamoto, 1998; Yamamoto and Tanno, 2002). While both a factor analysis and principal component test indicated that the translated version Greenholtz's team created matched the English version of the IDI well, the data revealed that over a quarter of the items on the instrument did not "map to their predicted IDI stages" (p. 85). Similar to the results found in a study conducted by Yamamoto (1998) conducted on a similar Japanese population Greenholtz found that his subjects' data more closely aligned with Japanese norms and methods of categorizing the world. While Hammer's (2011) most recent study addressed some of these concerns Greenholtz's questions may warrant further investigation.

Matsumoto and Hwang (2013) evaluated the validity of 10 intercultural competence assessment instruments based on five criteria: criterion reliability and validity, number and size of cross-cultural samples, additional methods of measurement in validity testing, predictive validity, and incremental validity. In their evaluation of the IDI, the authors noted the mixed construct validity results from the original tests conducted by Hammer, Bennett, and Wiseman (2003) to subsequent studies by Paige et al. (2003), Greenholtz (2005) and Hammer (2011). In these tests, Matsumoto and Hwang stated, the items on the IDI did not always match Bennett's model. Additionally, the authors criticized the IDI as an instrument due to its limited ecological validity testing ("test predicts measures of desired outcomes that serve as criterion variables", p. 851) and absence of mixed methodologies to assess the validity of the instrument. While Hammer's 2011 study added a larger sample to the body of evidence on the IDI, additional testing with varied

measures and further cross-cultural sampling outside of western settings may potentially improve the instrument's value in assessing intercultural competence.

The potential of using an intercultural model to inform teacher training is indicated in the studies by DeJaeghere and Zhang (2008) and DeJaeghere and Cao (2009). However, continued research in the field of education is needed as the number of studies on teachers and students outside of study abroad are comparatively few. Although utilizing a theory of intercultural development such as the DMIS and an assessment instrument like the IDI could address critical shortcomings of the traditional knowledge, skills, and attitudes approach (e.g. culturally relevant pedagogy), the limitations of the DMIS and IDI suggest a need for an additional model and means of assessment. Thus, the next section of this paper will examine a third body of literature rooted in conceptualizations of intelligence that is just beginning be researched in education and shows potential in helping teachers become more interculturally competent

Cultural Intelligence (CQ)

The third body of literature conceptualizes intercultural competence differently and is rooted in research on multidimensional conceptions of intelligence (Early & Ang, 2003). Cultural Intelligence (CQ) is similar to, yet conceptually distinct from, other constructs of intelligence such as emotional and social intelligence. CQ conceptualizes a subject's ability to deal with cultural diversity effectively with a four-factor construct. Earley and Ang (2003) defined CQ's four domains as metacognitive CQ, cognitive CQ, behavioral CQ, and motivational CQ. Viewed as an aggregate construct of capabilities, CQ's four factors complement each other as a construct for describing the "variability in coping with diversity and functioning in new cultural settings" (Ang & Van Dyne, 2008, p. 4). CQ is assessed through a variety of methods: a 20-question online survey instrument, peer evaluation, and newly developed multimedia situational judgment tests (Ang, Van Dyne, & Tan, 2011, p. 596). Ang and Van Dyne (2008) described CQ as state-like,

being similar to other forms of intelligence as it is "malleable and can be enhanced through experience, education, and training" (2008, p. 8) as opposed to personality traits which tend to be stable over time. As such, Ang and Van Dyne stated that while other instruments such as the IDI include both plastic capabilities and more permanent traits such as attitudes and personality, CQ's instruments assess only the abilities.

The four factor model of CQ contains cognitive, behavioral and motivational aspects. Cognitive CQ includes knowledge about other cultures, but also "includes knowledge of oneself as embedded in the cultural context of the environment" (Ang & Van Dyne, 2008, p. 5). According to Ang and Van Dyne, cultural knowledge sets the stage for understanding context and behavior. Metacognitive CQ is an "individual's level of conscious cultural awareness during cross-cultural interactions" (Ang & Van Dyne, 2008, p. 5). The metacognitive factor is important within the CQ construct as it prompts reflection about intercultural experiences and challenges prior knowledge leading to a reassessment of intercultural strategies. Reassessing strategies is related to Motivational CQ, the ability to learn about cultural differences and devote energy towards better performance in intercultural situations (Ang & Van Dyne, 2008, p. 6). Ang and Van Dyne stated that Motivational CQ is built upon the expectancy-value theory of motivation (Eccles & Wigfield, 2002) that entails both the "expectation of successfully accomplishing the task and the value associated with accomplishing the task" (Ang & Van Dyne, 2008, p. 6). In this way, the expectation of success and its perceived value propel individuals to expend effort towards examining their thinking and behavior in order to be more successful in intercultural situations. Behavioral CQ entails the individual's capability to "exhibit appropriate verbal and nonverbal actions when interacting with people from different cultures" (Ang & Van Dyne, 2008, p. 6). Ang and Van Dyne stated that behavior complements knowledge and motivation as it is the only aspect of CQ that is visible to others in intercultural communication.

Van Dyne, Ang, and Koh (2008) tested CQ as a construct and developed a valid measurement instrument in six studies of over 1500 subjects. The studies led to the development of the Cultural Intelligence Scale (CQS) and established the assessment scale's stability, reliability and test validity. The first study documented by Van Dyne, Ang, and Koh (n=576) detailed the development of the CQS and resultant 20-item self-reported measure. Confirmatory factor analysis (CFA) found the four-factor CQ model had both a good fit to the data and compared to alternative models, internal consistency and reliability.

The second study (n=447) assessed the generalizability of the model and instrument across samples. Structural equation modeling in this study again revealed a good fit of the four-factor model to the data and strong internal consistency. The third study (n=204, subset of sample in study 2) assessed the model's generalizability and stability across time. Participants were initially assessed with the 20-item CQS instrument and then re-assessed with the same instrument after coursework and experiential learning activities on cultural issues four-months later. Through CFA of the CQS's measurement invariance, the authors found the CQS to have test-retest reliability and evidence that the factors were responsive to training (Van Dyne, Ang, & Koh 2008).

While the initial three studies were conducted on students in Singapore, the fourth study (n=377) assessed the generalizability of the CQS in a sample drawn from undergraduates in an American university. After conducting tests of invariance on the data, the authors found the "same four-factor structure holds across the two countries (Singapore and the United States)" (Van Dyne, Ang, & Koh, 2008, p. 26). Van Dyne, Ang, and Koh next assessed the generalizability of the model though development of a peer-observer CQS (n=142). In the CFA of the self-reported and peer-reported measures, the authors found high reliability, convergent validity and discriminant validity. Subsequent analysis of the data through a trait-correlated method model provided additional evidence for convergent and discriminant validity of the scale

across both measures. The final study conducted by the authors examined the divergent and incremental validity of the CQS. Participants in studies 2 (n=447) and 4 (n=377) completed an additional questionnaire that "measured cognitive ability, EQ [emotional intelligence], CJDM [cultural judgment and decision making], interactional adjustment, and mental well-being" (Van Dyne, Ang, & Koh, 2008, p. 31). The authors found that the four-factor CQ model was distinct from the other questionnaire factors and was incrementally valid "in predicting cultural judgment and decision making, adjustment, and mental well-being" (Van Dyne, Ang, & Koh, 2008, p. 35). The six studies demonstrated the rigorous process of CQS development, a stable structure, multiple means of measurement, and generalizable findings across time, culture and measure. CQS and the four-factor structure were shown to be a reliable measure with discriminant, incremental and predictive validity.

Ang, Van Dyne, Koh, Ng, Templer, Tay and Chandrasekar (2007) built on the validation work on the CQ with additional cross-cultural samples and measures "finding strong support for the validity and reliability of the CQS across samples, time and countries (Singapore and the USA)" (2007, pp. 359-362) and the predictive validity of CQ. The first study detailed by Ang et al. examined a cross-cultural sample from the United States and Singapore (n=593) and tested the predictive capacity of the four-factor CQ model on CJDM and cultural adaptation. The American sample subjects completed online assessments of CQ, EQ and personality, followed by participation in CJDM scenarios. The Singaporean participants completed three sets of survey instruments on CQ CJDM, cultural adjustment and cognitive ability. Both populations self-assessed their personal intercultural experience. CFA found an acceptable fit between the sample data and four-factor CQ model. Analysis of the correlations between the CQ factors and other factors demonstrated both convergent and discriminant validity, supporting the authors' hypotheses.

In order to triangulate the results of the previous study, Ang et al. conducted a second study on a sample (n=98) of international business managers. The study's measurements consisted of a case analysis and task performance assessments complemented by peer evaluations and survey instruments for CQ and cognitive ability. Additionally, social desirability was controlled in this study through a short form of the Marlowe-Crowne assessment for social desirability. The follow-up study produced findings similar to the previous study in terms of fit, convergent and discriminant validity. Both studies found that the four factors of CQ successfully predicted both CJDM and cultural adaptation. Additionally, the second study found CQ to be a more significant factor in CJDM and task performance "over and above sex, citizenship, cross-cultural experience, dyadic similarity, general mental ability, rhetorical sensitivity and social desirability" (Ang et al., 2007, p. 355).

Ang et al.'s third study was conducted in the field outside of an academic setting on international information technology professionals (n=103) who worked for a consultancy in Singapore and their supervisors. Online questionnaire data was gathered from both participants and their supervisors. Participants' questionnaires consisted of items on their cultural adjustment and well-being, while their supervisors were asked to evaluate their employees' task performance and cultural adjustment. Participants also completed the 20-item CQS. CFA indicated a good fit between the employee reported data and data from the supervisor measures. Similar to the previous two studies, the CQ factors demonstrated discriminant validity. Behavioral and motivational CQ were found to be predictors of self-reported and supervisor rated task performance. Overall the three studies conducted by Ang et al. utilizing multiple measures and across different settings reinforced the generalizability of the CQS across contexts. Additionally, the authors found that the CQ model is effective as a predictor of intercultural success beyond "other individual characteristics previously shown to influence intercultural effectiveness" (Ang et al., 2007, p. 362).

In the most recent study, Van Dyne, Ang, Ng, Rockstuhl, Tan and Koh (2012) sought to "examine the nomological network of the sub-dimensions" (p. 308) implying that the traits are identifiable, quantifiable, and universal through statistical analysis and testing. Through this work Van Dyne et al. (2012), refined the CQ model by proposing 11 sub-dimensions that further develop each of the four factors. Building upon research on self-awareness and metacognition (O'Neil and Abedi, 1996; Triandis, 2006), the authors added planning, awareness and checking assumptions to the metacognitive CQ factor. The authors expanded the cognitive CQ factor to include both cultural-general knowledge (Bennett 1991; Triandis, 1972) and context-specific knowledge (Morris, Kwok, Ames & Lickel, 1999; Triandis, 1994). Motivational CQ is developed further in order to demonstrate the intrinsic (Deci, 1975) and extrinsic motivation (Ryan & Deci, 2000) of individuals to adapt to new cultural situations, and their confidence in dealing with these new circumstances (Bandura, 1997, 2002). Within the behavior CQ factor, the authors incorporated the studies on communication norms from Sue, Bucceri, Lin, Nadal and Torino (2007) with research on intercultural communication and behavioral flexibility (Gudykunst & Kim, 1984; Ylänne, 2008) to "emphasize the complex flexibility required for effective intercultural interactions" (Van Dyne et al., 2012, p. 306). Together, the sub-dimensions comprise what the authors refer to as the Expanded Cultural Intelligence Scale (E-CQS). Van Dyne et al. (2012) examined preliminary data and CFA to determine the fit of the new 11-factor model and found that the fit of the 11-factor E-CQS model "was a significantly better fit than a four correlated first-order model" (2012, p. 307) while reliability testing found all the sub-dimensions to be correlated with the initial four factors.

Although Matsumoto and Hwang (2013) raised questions similar to those raised by Greenholtz (2005) regarding conceptual transferability of translations and point to some "mixed findings using pre-post tests of the efficacy of intercultural training using CQ as an outcome measure" (2013, p. 866), the authors cited the significant breadth of studies establishing CQ's

construct validity across a wide variety of cultural contexts. Similarly, Matsumoto and Hwang (2013) reported the "considerable evidence for the concurrent and predictive ecological validity of the CQ with samples from multiple cultures" (p. 856) and additional evidence supporting CQ's strong construct validity across cultural settings.

Understanding Intercultural Competence: Traits, Attitudes, and Capabilities

Leung, Ang, & Tan (2014) contribute to the discourse around intercultural competence by anatomizing current conceptualizations of intercultural competence research and an evaluation of models and measurement instruments. The authors noted that while consensus exists on a broad definition of intercultural competence the numerous models vary widely in their contents, and disciplinary origins such as personality, counseling, global leadership, or intercultural communication. Leung, Ang, and Tan (2014) categorize the contents of these varied intercultural competence models into three domains: 1) traits or personality characteristics, 2) attitudes or worldviews, and 3) capabilities (p. 491-492). While the models are distinct in their conceptualization of intercultural competence, Leung, Ang, and Tan (2014) trouble the notion of how the models may influence each other and specifically note the research indicating the potential for traits to be viewed as an antecedent to attitudes and capabilities (Ang & Van Dyne, 2008; Ward & Fischer, 2008; Sri Ramalu, Shamsudin, & Subramaniam, 2012) which can be seen in the authors' figure below (2014, p. 498).

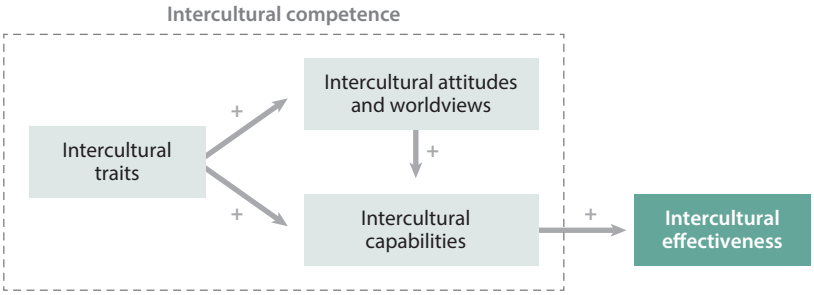

Figure 1

A general framework of intercultural effectiveness.

Figure 1. Leung, Ang, & Tan's (2014) model of the relationship of traits to intercultural capabilities.

While similar to Deardorff's (2006) view that traits and attitudes may influence individuals to develop intercultural capabilities, Leung, Ang, and Tan (2014) extend the analysis and put forth that traits may predispose or motivate individuals towards specifically seeking out intercultural experiences and thereby affecting intercultural attitudes and worldviews. The implication is that models that conceptualize and measure intercultural competence through traits or attitudes and worldviews are incomplete as they fail to consider both what individuals can do in intercultural situations and the potential interaction between the models' contents. The figure is also significant as it points to the intercultural competence models' shared objective of predicting intercultural effectiveness. The significance of this shared objective, specifically the potential outcomes of intercultural effectiveness, is discussed later in this section.

Leung, Ang, and Tan (2014) evaluated five models of intercultural competence (global leadership competency, global mindset, multicultural personality, DMIS, CQ) and the related measurement instruments. The global leadership competency model was selected based on its broad conceptualization of intercultural competence, while the other four models were selected based on their prevalence in the field of research (p. 492). The authors situated the models in within the content categories of traits, attitudes and worldviews, and capabilities and noted that

two of the models (global leadership competency and global mindset) and their assessment instruments combine elements from each the different categories.

Similar to Matsumoto and Hwang's (2013) evaluation of 10 intercultural competence instruments Leung, Ang, and Tan (2014) evaluate the five models and instruments based on construct validity, equivalence across cultures, and predictive validity. In the analysis of the CQ model the authors' specifically highlighted the importance of motivation and its close relationship to cognition. The authors' note that motivation in this model determines the energy individuals will direct towards understanding cultural differences (p. 495) and that intelligence models "that ignore the role of motivation are fundamentally incomplete" (p. 495). In the findings of the evaluation, Leung, Ang, Tan (2014) matched Matsumoto and Hwang's (2013) analysis and reported the strength of CQ's applicability across cultures and predictive power.

Leung, Ang, and Tan (2014) extended Matsumoto and Hwang's (2013) analysis and examined the conceptualization of intercultural effectiveness through psychological, behavioral, and performance outcomes and categorized the research on each of the models into the three outcomes. Additionally, the authors' noted the lack of research on performance outcomes and the related needs for research to investigate both how and in which contexts intercultural competence translates to performance. In this light, the authors indicate that only CQ has the empirical base to address these twin concerns (p. 498).

However, Leung, Ang, and Tan (2014) also examined three approaches to how intercultural competence is measured specifically self-reported measures, informant-based measures, and performance-based measures. The authors note the prevalence and importance of self-reported measures in intercultural competence research and then trouble the issue of accuracy, in particular method and measurement variance. Leung, Ang, and Tan (2014) highlighted that measurement and method variance both reveal different aspects of a construct and provide meaningful information about individuals that "informs theory-driven research" (p.

503). To assess intercultural competence measures the Leung, Ang, and Tan (2014) advocate using predictive validity to determine whether a model and instrument are well-suited to measure a particular aspect of intercultural competence. The authors state that informant- and performance-based measures are less common in intercultural competence research and point to the calls for greater diversity in assessment measures in the scholarship (Deardorff, 2006; Gelfand et al., 2008). While some progress has been made recently to create alternative instruments to complement self-reported measures Leung, Ang, and Tan (2014) single out the uniqueness and innovation in CQ research on developing alternative measures (Van Dyne et al., 2008; Kim & Van Dyne, 2012) especially situational judgment tests (Rockstuhl, 2013) compared to other models.

Leung, Ang, and Tan (2014) cite research on the varied application of intercultural competence models in training applications and the mostly positive effects on the development of intercultural competence. The promising results of training applications in the development of intercultural competence in individuals, the authors state, calls for new research into identifying the effective elements in training (p. 508). This new research is targeted at practitioners and Leung, Ang, & Tan (2014) suggest several directions to guide training and application research such as on-the-job training paired with coaching and mentorship, situated learning and learning communities, and experiential learning based on Kolb's learning theory model. Within these approaches, an emphasis is placed on support, guidance, and performance in intercultural contexts.

Most significantly for this study, Leung, Ang, and Tan (2014) argue that despite knowing a good deal about generalized intercultural traits, attitudes, and capabilities that predict the potential of an individual to be successful in an intercultural setting, more research is needed into what individuals do in specific contexts, what the authors refer to as "in situ intercultural competencies" (p. 511). The authors' model below (Leung, Ang, & Tan, 2014, p. 511) illustrates

how the generalized competencies need to be paired with training in context specific behaviors to achieve a successful outcome.

Figure 3
Proposed model for in situ intercultural competence.

Figure 2. Leung, Ang, & Tan's (2014) model of the development of in situ intercultural competencies

While the authors acknowledge that the context specific competencies do not guarantee success and that there are other factors that contribute to successful intercultural interactions they do state that identifying and developing the competencies necessary for specific contexts has significant value for practitioners and training applications. Specifically, the identification of context specific competencies will aid in the development of relevant, practical, and task specific training methods. There is a clear need for research to uncover and explain the in situ competencies for teachers in culturally diverse classrooms with significant implications for teacher professional development.

Summary and Existing Gap in the Literature

Too often teacher professional development in intercultural competence has focused solely on race and emphasized teacher knowledge. Current research indicates that educators' underlying values and assumptions must also be addressed with means of assessment to help inform training and aid in the development of teachers' intercultural capabilities. Additionally, how culture is conceptualized and an expanded view beyond race is necessary for teachers to effectively work with their schools' populations. The pressing need for increased teacher

intercultural competence due to factors such as the demographic imperative, persistent achievement gaps, and the need to educate students for an increasingly globalized world is clear. The recent research into the incorporation of intercultural competence models to develop teachers' capabilities presents a significant step towards helping educators build effective relationships with their students and communities. However, this research is still left lacking in its focus on the attitudes and worldviews of teachers, neglecting the development of educator capabilities in navigating intercultural contexts. In this light, current scholarship evaluating current intercultural competence models presents CQ as a compelling construct for the process of developing the intercultural capabilities in teachers.

CQ's substantially researched theoretical grounding in intelligence, capabilities focus, deep body of empirical research and statistical analysis combined with the testing of the instruments across a wide variety of cultures lends credibility to the model and assessments and therefore confidence for research in my topic area. At this time of this paper research utilizing CQ in education is just beginning, however the strengths of the model, specifically the nomological network, validation studies, and testing in different cultural contexts leads me to investigate the application of this construct in an educational context. This study seeks to contribute a currently absent qualitative component to the scholarly body of research on CQ by unpacking the practices of high CQ teachers and identifying in situ intercultural competencies in an education context. The in situ competencies and investigation of teaching practices with the CQ framework will also contribute to teacher professional development.

CHAPTER 3

Method

Introduction

In HD's social studies class, the students will conduct a debate on whether the Dakota should sign the 1851 treaty of Traverse des Sioux. This learning activity is to help students understand the tensions within the Sioux community and between the new white settlers and the Dakota leading up to the 1862 United States-Dakota War. It is the sixth grade class's first debate of the year. The classroom is divided into two groups—the Dakota on one side, the settlers on the other. The students prepared in class over the past two days—the teacher checks their preparatory work or "entry ticket." Any student who did not finish, moves to the back of their section to finish before they can join the debate. As the students filter into the classroom the teacher goes around the class with a box of pencils, checking in to see if anyone needs one. The teacher does not take collateral like phones or shoes or IDs like other teachers—they just give the student what they need without a word except to ask if they need one if they observe that a student's hand is empty.

The teacher clarifies that a debate is different than a discussion or argument— "it may be different than what you've seen on TV recently, too" referencing the recent presidential primary debates and states that these debates have been more like arguments. The teacher walks the students through the order, rules, and structure of the class debate. As part of the structure, the teacher also reminds the students about Accountable Talk (using conversation stems like "I disagree" and "I noticed that") stating that "this is what makes it different than an argument." The teacher talks about disagreement and respect, specifically the use of evidence to disagree. They also remind the students that the ground rules are that they must use Accountable Talk in their responses. They tell the class that they will help with this activity but there will also be two student moderators. To help the students, the teacher posts Accountable Talk prompts on the board.

The teacher also discusses with the students that he will be using two playing cards to remind students that are speaking a lot that they need to take a break for the number of turns on the card so their group members can also share their ideas in the activity. While students who receive a card take a break from speaking, the teacher discusses with them strategies for how they can continue to participate, for example, by finding relevant information for their group's responses and taking notes. The student moderators are selected and they will they will be in charge of keeping track of points. Students earn points in the debate activity for using Accountable Talk and evidence or ask a question or build off another's point and can lose a point for going off topic. The students move to opposite sides of the classroom and sit with their teams. The moderators sit in desks at the front of the classroom. The teacher stands outside the teams

The debate begins and the Dakota win the coin toss and open with their statements about why think the treaty is unfair. The students all use Accountable Talk. The students on the white settler side listen intently and quietly. The settlers next get to make their opening statements. With the settlers opening statement the class becomes more tense the Dakota begin to visibly react to their classmates' words. The teacher reminds the Dakota that they need to listen and should take notes in order to craft their responses. The students comply with the teacher's request and listen but the emotion is still hot even if it is restrained.

The debate moves into the question and rebuttal round and quickly issues of fairness regarding treaty being in written in a language that the Dakota did not understand. At this point the emotions are in full force and students start to talk over each other. The teacher lets it go for a minute and then brings the class back together and uses the chaos as a teaching moment to talk about what needs to happen so the debate can go more smoothly and so students can really hear each other. The debate continues in fits and starts as the students wrestle with following the rules, their emotions, and having their points heard. The teacher calls for a pause again, recognizing the

emotion of both positions. The teacher requests that they would like them to talk about the evidence and supporting their positions.

The teacher keeps the students moving and encourages them to use evidence, but the teacher allows the students to use slang. There is a lot going on in this lesson and it can be potentially viewed as a complex balancing act of developing academic skills, inviting student voices, cultural awareness, and critical inquiry. The teacher emphasizes the use of evidence and listening and releases their grip on expression of emotions and language. This is less about the students' experiences with the material and how they make and express meaning in the content.

As the debate progresses the students seem to find more confidence and facility in the format. The students' enthusiastic participation becomes more orderly as they call on each other, raise their hands and wait for speakers to finish their points before interjecting their views. The students police each other for participation even when the debate becomes very heated as they remind each other to listen to and respect each other's perspectives. The teacher at points reinforces the students' monitoring of each other's behavior telling them that the structure is about encouraging academic participation and getting their classmates to engage "so check yourself." The teacher reminds the entire class that some people have only had a chance to talk once or twice. He distributes one of the playing cards to a student. The students referred to this as the yellow card.

The debate draws to a close and the teacher asks the students to prepare their groups' "drop the mic statements" in their closing arguments. The students prepare and deliver their closing arguments. There is a lot of tension between the groups. At the close of the debate, once the final statements are done, the teacher discusses with the students the challenge of how people had to argue a side that they personally disagreed with. He commends them because it is difficult. Only two students wanted to argue on the settler side when the class was originally divided. The teacher seeks feedback from the students about what they thought went well during the debate

and what could be better. The teacher also engages the students about what they taught each other during the debate. During this discussion between teacher and students, the moderators tabulate their scores and make their decision about the winner. In the final tally, the moderators announce, the settlers won the debate. There are the expected groans and shouts but no grumbling about unfairness or the unjustness of the moderators' decision. The teacher brings the students quickly back to order and reminds them that the debate was a class activity and that disagreements were about the material not the person or their beliefs and asks them to be respectful to each other once they leave class (HD observation, December 11, 2015).

In the observation vignette above, the teacher engaged their students in a critical inquiry activity that helped develop their listening and dialogue skills. The students practiced understanding others' perspectives both in the content and in a debate and engaged with sociocultural issues. Throughout the lesson, the teacher's voice was a guide but it was the students' voices and meanings which predominated. The teacher allowed the students to be wholly immersed in the experience with minimal interference. The teacher also asked the students to scholarly in their engagement with each other by integrating their classroom learning into their responses and to be respectful and inclusive of each other within the classroom community.

As I sat in the classroom, I knew that the teacher scored highly on the CQ assessment instrument. However, knowing the teacher's CQ assessment scores provided me with little understanding of how they conceptualized their practices, how they viewed students and engaged them in the classroom. What I wanted in this study was insight into how teachers, like HD in the above vignette, understood their teaching and students. I wanted to get an in-depth look into their actual classroom behaviors, and I wanted to know if and how the CQ assessment might be reflected in their practices.

Research Design

Qualitative research approach. To answer the research questions, a multiple case study on a purposeful sample of teachers at different levels of CQ development in a public high school was conducted. The district and school selected for this study are led by building and district administrative personnel who have partnered with the University of Minnesota's Teacher Education Redesign Initiative course that addresses the diverse learners teacher licensure requirement. Examining the practices of teachers across the range of CQ development will provide in-depth knowledge regarding how teachers at different levels of intercultural competence understand cultural differences in their teaching and interactions with students. Compared to earlier quantitative validation studies, qualitative studies are able to convey both the "externally observable behaviors *and* internal states (worldviews, opinions, values, attitudes and symbolic constructs" (Patton, 2002, p. 48) and provide an in-depth look into the lived experiences beyond the statistical data.

In this study I approached the teachers' beliefs and practices utilizing a social constructionist lens to uncover the complexity and meanings or interpretations that participants make about phenomena as seen through their viewpoint (Patton, 2002; Creswell, 2013). This approach is particularly salient for the study of intercultural capabilities as the social constructionist approach relies upon how participants make meaning out of experiences formed "through interactions with others…and through historical and cultural norms that operate in individuals' lives" (Creswell, 2013, p. 25).

For adding to the scholarly body of research on CQ, the multiple case study approach and social constructivist lens is particularly vital for capturing the meanings that teachers assign (Creswell, 2013) to their practices with culturally diverse students. The multiple case study provides an in-depth understanding and window into the experiences of participants through an examination of several types of data and conveys rich description of cases and emerging themes

(Creswell, 2013). The multiple case study is particularly useful for capturing the diversity of teacher practices and perspectives across participants and sites on a single issue (Creswell, 2013).

A single school site was selected for this study to provide for richer contextual knowledge of the building's population and community. The single study site provided more opportunities for me as the researcher to both deepen research relationships with participants and gain emic insights into their practices and also to be present for illustrative events and interactions with students (Yin, 2014). The focus on a single site and intensive observation period described below also afforded me the opportunity to witness how the community responded to events such as the Paris terror attacks and the shooting of an unarmed African-American man by police not far from the school. In addition, the single site may limit outside influences such as differences in administrative practices and student populations across cases.

Focus groups could contribute to a future study where the teachers profiled in this initial study form a community of practice and engage on how they make meaning of teaching practices or how they conceptualize their teaching practice with culturally diverse students. However, the participant observation in this study captures, especially for practitioners, what the teachers actually do in their classrooms during a school year as well as how they think about their practices.

Participant and site selection procedures. Purposeful sampling based on teachers' initial CQ self-assessment scores was employed to determine who would comprise the participant group. This sampling method was chosen in order to capture a deep understanding of a range of teachers' experiences, meanings and practices in order to provide other educators a window to the teachers' practices and transfer the knowledge to other contexts (Patton, 2002; Yin, 2014) and to illustrate the variety of practices and perspectives in the classrooms (Creswell, 2013). The teachers were drawn from the secondary school in a district with which the University of Minnesota has an existing relationship through the pre-service teacher preparation program and

alumni relationships. The district in this study is a strong proponent of culturally responsive pedagogy, working with outside experts such as the Pacific Education Group previously, and has with an interest in the applicability of CQ to education. The school and its current administrators have worked in the past with the University of Minnesota's teacher licensure program's diverse learners course and a university-district partnership program for teacher induction. The year-long diverse learners course is part of the university's teacher licensure program and specifically addresses the complex role of culture within schools and utilizes culturally relevant pedagogy as part of its teacher candidate preparation. The teachers in this study were not known to me prior to the data collection.

Research site. The research site is a grade 6-12 secondary school situated within a first-ring suburb of a large Midwestern city. The school district serves just over 2000 students in its single elementary school (grades pre-K-5), secondary school (grades 6-12), alternative learning center (grades 9-12), and online school (grades 6-12). The secondary school's relatively small population of 816 is majority non-white according to the National Center for Educational Statistics with white students comprising 16.67% of the student body. Black students (including both African-American and African populations) make up 41.67% of the student population. Hispanic students comprise 21.08% of the population followed by Asian students (16.17%). American Indian students and students identifying as two or more races represent 1.47% and 2.94% of the population respectively. The school has an overwhelmingly high free and reduced lunch eligible population at 82% of the student body. The school's population demographics are similar to the district as a whole and roughly mirrors the area of the large city that it abuts. The teaching faculty, like many schools in the United States, is predominantly white. Demographic data reported by the faculty was compiled from an anonymous survey which is included in Appendix B at the end of this paper. The survey results concerning faculty demographics are included in the following chapter.

Instrument. As a CQ Certified Facilitator, I offered the CQS self-reported online instrument free of charge to the entire secondary schools teaching faculty (n=62) accompanied by a demographic survey (Appendix B). Teachers were initially informed of the assessment during a faculty meeting in early September 2015 in which I explained the purpose and nature of the study, invited the entire staff to participate, informed teachers about the voluntary nature of the study and their ability to not participate or opt out any point in the study without consequence. Teachers were informed about the confidentiality protections of the study and received Institutional Review Board information and disclosure paperwork. Teachers were then notified by email about the assessment and provided instructions on how to take the online self-reported assessment. Teachers were informed that their assessment results would be sent to them individually to either their school or private email account or, if they preferred, in a hardcopy format after the study data collection phase was completed. Following the data collection, all teachers received their individual reports and were then debriefed in a group interpretation of results at a faculty meeting in January 2016. Individual feedback sessions on their reports were offered free of charge to all assessment participants. Out of the school's entire teaching faculty, 52 of the 62 teachers (83.87%) elected to take the online CQ assessment. In addition to the teachers, the school's principal and media center specialist also took the CQ assessment. The school's assessment profile and a comparison to world wide norms was created by the Cultural Intelligence Center and is provided in the quantitative results chapter. The Cultural Intelligence Center is the sole provider of access to the CQ assessments and provides training for individuals who wish to administer the assessments. The world wide norms compiled in the Cultural Intelligence Center's profiles are derived from the results of assessments provided by the Center. The data the Cultural Intelligence Center uses for the world wide norms is used with the consent of assessment takers. Additional reporting of the study's sample is also included in the following results chapter and in statistical tables and charts in the Appendix section (Appendices D and E).

Participant pool. Individual CQ assessment results were compiled and grouped into high-CQ, medium-CQ, and low-CQ cohorts for subsequent interviews and classroom observations. The high-CQ cohort was bounded by teachers who scored in the top quartile of at least two CQ factors and within the middle two quartiles for the two other CQ factors. The medium-CQ cohort was bounded by teachers who scored in the top quartile in no more than one CQ factor and at least two factors within the middle two quartiles. The low-CQ group was bounded by teachers who scored within the middle two quartiles for no more than two factors and whose remaining factors fell within the lower quartile range of scores. Potential participants for the study were recruited for the interview and observation portion of the study initially by email. The school's instructional coach facilitated visits to all of the school's professional learning community meetings in order to follow-up on the information presented in the faculty meeting, address questions about the study, and recruit additional participants.

CQ assessment results and compiling of CQ assessment data began in September 2015 followed by cohort identification and invitations to participate in the interview and observational portion of the study. The data on teachers and their practices began in October of 2015 with initial semi-structured interviews about how teachers conceptualized working with cultural differences in their teaching practices. The interview protocol can be found in Appendix A. Classroom observations and interviews with the sample pool of teachers began in October 2015 and continued through December 2016. One additional teacher, with permission from the school administration, was allowed to continue several observations into January. Member checks of the interviews and preliminary observation results were conducted between December 2015 through January 2016 with study participants to confirm the accuracy of the transcripts, classroom observation notes, and that the preliminary interpretations represented the teacher experiences and perspectives.

Methods and data collection procedures. In this multiple case study, five types of data were collected and analyzed to uncover the thoughts, behaviors, and motivation of teachers: (1) CQ assessment data; (2) survey; (3) semi-structured interviews; (4) classroom observations; and (5) informal interviews with the teachers.

Initial data and emic understanding. Initial data collected on the teachers was in the form of the CQ assessment scores. This quantitative data established the score profile of both the school and the pool of study participants. Following the CQ assessment instruments, a school wide demographic survey (Appendix B) was administered during the teachers' professional learning community meeting times. Semi-structured interviews were conducted with each participant in the sample pool (Appendix A). The purpose of the semi-structured interviews was to gain an in-depth emic understanding of how teachers teach within their culturally diverse classrooms and to orient my observational research towards particular focal areas and practices. The semi-structured interview maintains the same line of questioning through the interviews (Patton, 2002, p. 343) but especially important for this preliminary stage of the research provides flexibility to pursue or probe deeper on topics salient for the study.

Observations. The semi-structured interviews were followed by an intensive 2-month period of observations of classrooms spaces where students and teachers interact at the site. Each teacher worked with me to build a schedule of 10 classroom observations of the same class period (48 minutes per period). Observations were typically carried out over a 2-3 week timeframe. Out of the scheduled 180 classroom observations, 174 were completed owing to factors such as teacher or dependent illnesses and emergency meetings. While the interviews provided much insight into the teachers' conceptualizations and understanding of cultural differences in their own vocabulary, the information is still gleaned second-hand. Observation in the teachers' spaces provided rich descriptive data on the settings and practices.

The initial categories for observation were based upon the four CQ factors (cognition, metacognition, motivation, behavior) and the 11 sub-dimensions (cognition: business, values and norms, socio-linguistic, leadership; metacognition: planning, awareness, checking; motivation: intrinsic, extrinsic, self-efficacy; behavior: speech acts, verbal, non-verbal). Additionally, Ladson-Billings' (1995, 2009) components of culturally relevant pedagogy (equitable relationships and shared responsibility for learning, high expectations, making meaning, and critical evaluation) were used as additional categories for observation based upon both the district's focus on culture and pedagogy and themes that emerged during the interviews. Observation provided the potential to have conversations directly related to practices and instances in the teachers' spaces and on topics that may not have been raised in the interview guide or on themes that the participants may not have wanted to raise in the interview setting (Patton, 2002, p. 263). Additionally, the observations provided opportunities to examine teacher practices for evidence of CQ factor enactment in areas such as student-teacher interactions and lesson content and structure as well as potential divergent practices.

The 2-month intensive site visit schedule typically entailed being in the school for 5 full-length school days per week and consisted of classroom observations, formal and informal interviews, and memo writing. The rationale for this shorter duration but highly time-intensive period was to better acclimate the students and teachers to the presence of me as a researcher in the building and classroom spaces. The frequency of the site visits was also designed to lessen the intrusion of my presence and help build rapport with students and teachers as well as gain an emic perspective of the building and district. The intensive observation schedule did include a mid-study check prior to the Thanksgiving holiday break with my advisors to re-assess research questions and examine the data for emerging themes. During this check, the study's original research questions were determined to align with the preliminary interview and initial observation findings.

Informal interviews. Complementing the observations, informal interviews were an integral component of the data collection and provided a deeper understanding of the patterns, demographics, and practices in these teachers' classrooms. The informal interviews were used to gather data immediately following an instance and provided additional nuance and depth to classroom examples and descriptions of practices such as incorporating student perspectives into lessons. These informal interviews provided flexibility to adapt questions to the setting and individuals, and allowed me as the researcher to gain additional clarification of previous interview responses (Patton, 2002, p. 342). Data from these sources was gathered in field notes and research memos. Throughout the data collection process, initial categories and observations were checked against an ongoing analysis strategy of memo-writing (Yin, 2014) to capture emerging patterns and themes.

Data analysis procedures. Prior to data analysis, the interviews were sent to a transcription service. I examined the transcripts against the original recordings for accuracy and then sent them to the study participants for their review. Individual face-to-face member check meetings were conducted with all of the participants to discuss the interview transcripts and share initial observation findings. The accuracy of the initial findings and observations were assessed with the participants during these meetings and served as a check that my analysis and conclusions were grounded in their language and experiences. At these individual meetings, participants were also updated about the progress of the study, had opportunities to ask questions and also served for me to gather any additional insights or thoughts from the participants about the research topic, their interview, and observations.

Interview transcripts were initially coded in Nvivo software to aid in the identification of themes. The prefigured categories of the CQ four-factor construct and its sub-dimensions along with the categories from Ladson-Billings' (1995, 2009) culturally relevant pedagogy with additional categories (teacher student relationships [TSRs], knowledge of student home lives,

culturally relevant materials) drawn from observations, informal interviews, field notes and member checks served as initial codes. Matrices of the code frequencies in the transcriptions were tabulated in Nvivo in order to identify patterns and initial entry points for analysis.

Analysis of the code matrices indicated that teacher interviews data focused on two CQ categories (CQ Drive, CQ Strategy), three culturally relevant pedagogy categories (making meaning, equitable relationships, and critical evaluation), knowledge of student home lives, and TSRs. The categories above served as analytical entry points to examine the thoughts and practices of teachers. The coded transcripts from the initial categories above were next analyzed for additional emergent sub-categories in order to unpack the multi-layered and complex process of teaching. The final coded transcripts were checked against field notes and research memos (Creswell, 2013) written during the data collection and member checks for fidelity to participants' voices and experiences.

Observation data was coded in Nvivo in a similar fashion, initially using the prefigured categories from CQ, culturally relevant pedagogy, TSRs, knowledge of student home lives, and culturally relevant materials. Code matrices were created in order to determine areas of data concentration for initial entry points into the data, to identify potential areas for further analysis and sub-category development, and to check for convergence or divergence with the interview data. An examination of the observation node matrices revealed a concentration of data around one CQ category (CQ Action), three culturally relevant pedagogy categories (equitable relationships, making meaning, critical evaluation), and TSRs. The interview transcripts were re-examined and analyzed for additional sub-categories and checked against field notes and memos for fidelity to participants' experiences.

The data from individual cases were analyzed and interpreted for convergence with the CQ four-factor model and noting were the data diverged from the model. Data analyzed in this manner provided additional internal validity evidence for the body of scholarship on CQ (Yin,

2014). Individual case analysis was followed by a cross-case synthesis for convergent themes that emerged across the participants' cases (Yin, 2014). The cross-case synthesis created a framework from the prefigured and emergent codes to draw generalizations from the data. A data audit was conducted at the end of the data analysis with my advisor and another committee member to assess the data, and to confirm the dependability of the assertions made in the analysis (Lincoln & Guba, 1985).

The final framework is presented in the form of a theory-building structure (Yin, 2014) that fits the exploratory nature of this case study and is displayed in Tables 8-15 in the final discussion chapter: convergent practices with the CQ model, divergent practices from the CQ model, and a preliminary model for culturally intelligent teaching in the classroom (Figure 23). The convergent practices consist of the CQ factors that emerged during the data collection and analysis with short descriptions of practices from the interviews and observations. Each of the four factors of the model are further developed in unique sections with observational data, interview quotes, analysis and interpretation in the CQ results chapter. Divergent practices are displayed in Tables 14-15 whose thematic categories emerged from the field data. Similar to the sections on convergent practices, the divergent practice themes are developed in unique sections accompanied by observational data, interview quotes, analysis and interpretation in the CQ results chapter. The final generalizations are presented as a CQ practices model for educators detailing and evaluating the data gathered based on CQ's four-factors and its potential relationship with culturally relevant pedagogy. Alternatives and divergent data are discussed as avenues for further research.

Conventions utilized in data reporting. In this study, teachers are identified by initials alone and individual's gender and ethnicity are not revealed. The small and tightly knit school faculty combined with the school community's intense interest in this study's findings, especially by the building and district administration, were the chief considerations in the manner which to

report the data. In this small secondary school with few teachers of color, if participants' gender or ethnicity were revealed the individuals would be easily identified, thus undermining the anonymity participants were guaranteed during the study. This anonymity allowed participants the opportunity to be open and vulnerable about their beliefs and practices without worry of potential administrative evaluation or consequences to their professional standing in the district. While this convention of using only participants' initials and omitting gender and ethnicity in the reporting may lead to assumptions of whiteness as the norm for the participants' beliefs and practices in the classroom, the need to protect the individuals' anonymity both in terms of research ethics and in order to conduct subsequent research at the school site with the trust of the faculty provided the rationale for this choice.

Significance

This study is significant as it makes two important contributions to the body of research on CQ. Research on CQ up to the writing of this study has been exclusively quantitative and this study informs scholarly research on the construct by exploring how individuals enact the four-factors through qualitative research methods. Additionally, this study is an exploratory study for the application of CQ research in K-12 education. This study may indicate new paths for pre-service teacher preparation and professional development models of culturally relevant pedagogy by discovering the practices of exemplary teachers in navigating cultural differences in their classrooms, schools, and the communities they serve. The current culturally relevant pedagogy model lacks an undergirding theory for how individuals understand and view cultural differences. CQ on the other hand combines a framework for how individuals develop intercultural capabilities with a rigorously validated means of assessment. Applying the CQ construct and assessment measures with case study examples drawn from a range of teachers at different CQ levels of development has potentially deep implications for the preparation of pre-service teacher

candidates and the professional development of teachers currently in the classroom. Through this research, I hope to better enable teachers to make classrooms, lessons, and curricula relevant to their students, aid in their ability to build effective educational relationships across the pervasive demographic mismatch between teachers and students, their families and communities.

This study sought to understand why some teachers were able to create inclusive classrooms, build connections with students and enact pedagogy that foregrounded student voices and experiences. The research questions seek to unpack the beliefs and practices of teachers in order to help other teachers and teacher educators understand and develop these capabilities. While existing models strive to help teachers connect with students, create relevant curriculum, develop social justice mindset, they fail to address and assess how teachers think about, understand, experience, and navigate cultural differences in their schools and communities. This study endeavored to unpack teachers' thinking and classroom practices in working with their culturally diverse students.

Limitations

Despite my experience in the classroom, I was acutely aware during this study that I entered student and teacher spaces as an outsider. I entered schools as an observer and as a middle-aged, middle class, white male academic. The teachers I studied work in a school contexts and with students who are in some ways very different than the ones from my own teaching experiences which were largely in affluent, suburban or international settings. I could relate to some of the participants' stressors or about the work such as administrative demands or difficult parents. I was able to connect with my participants about aspects of teaching practice such as establishing relationships with students, but when it came to the experiences with our students, in particular obstacles to learning, our experiences were very different. I worked very hard to capture the voices of my participants, to build trusting rapport, and be open to their experiences. Teachers introduced me to their classes not as a researcher, but as a teacher. Despite this seeming

collegial status, my positionality may have limited what the teachers revealed to me. Despite the common ground I shared with the participants, I still came to the school every day as a representative of a university.

The construct and instrument I selected does not claim nor does it reveal all the complexities of teaching. CQ presents a look into how individuals navigate culture, but does not address other capabilities that teachers need to be successful in their practice such as emotional resiliency, creativity, or content knowledge. Finally, though the school, its teacher and student population demographics, and challenges is very similar to many schools in the United States the data collected in this study is exploratory and by its nature may not be generalizable to other contexts.

Positionality

As an experienced classroom teacher I am sensitive to the need for applied research to help teachers with their practice as well as research for scholarly contributions. My teaching experience also contributes to my belief that teacher voices must be part of the scholarship and discourse in education. As a scholar interested in how individuals navigate cultural differences I approach my research through a social constructionist lens knowing the important role that culture has in constructing how we make sense of experiences and that "strikingly diverse understandings can be formed of the same phenomenon" (Crotty, 2011, p. 47). In studying schools and experiences of teachers I find the social constructionist lens useful due to understand how the experiences, beliefs, and worldviews of teachers and students interact within the classroom space. Understanding how culture infuses the process by which both teachers and students organize the world and make meaning out of the school experience is crucial in my view if teachers are to make their courses relevant for their students.

Despite my positioning as a constructionist, this study utilizes a positivistic assessment instrument to identify teachers for the study. I approach the construct and the assessment instrument with a critical but open mind. While I may question epistemologically the ability of an instrument or construct to reveal an objective truth, I am mindful that the construct and instrument are supported by a robust research methodologies and present useful tools to help individuals conceptualize their own journey to develop intercultural competence. I do feel that this study and the exploratory qualitative data gathered will help add to the explanatory power of the construct especially in its application to K-12 education.

CHAPTER 4

Survey and CQ Assessment Results

Introduction

It is the last day of the English class's study of the novel *Sula* by Toni Morrison and the last day of my observations of this class, too. On the classroom whiteboard the teacher has written on the day's agenda "Goodbye to our visitor" and the students brought in treats. As the class transitions from passing time to the formal class period, the students, teacher and I load up plates and chat while we all find our ways to our seats. I thank the students for letting me be part of their community for the past few weeks. One of the student replies that they were happy to have me and that he wants to let me know that I fit in and was part of their community in a very genuine way. I am going to miss this class; the students know my name (I have been given nicknames, too) and stop to talk with me in the hall to share their post-graduation plans and ask questions about my research.

To conclude their study of *Sula,* the students read and will discuss the original *New York Times* book review. One of the students slips a copy of the review and preparatory discussion questions on to my table and whispers that I will be expected to participate today—I have been given five minutes to prepare. As I furiously read the book review and take notes on the questions, the teacher engages the students about what they think will be the best method to use in order to assign a discussion grade and what are the characteristics of good participation. As the students and teacher continue to work their way through their snacks, the class talks about ways that everyone can participate and their responsibility to each other for what a quality discussion and learning experience will look like (LG observation, November 13, 2015).

Within these brief few minutes in a teacher's class a lot happened in terms of community, shared responsibility for learning, and student engagement around a novel which was used to explore some of the complexities of race, adolescence, and identity. The teacher in the above

observation vignette formed a community of learners who understood their shared responsibility for learning. The students are equal members in this community and are engaged in the articulation of the qualities of good academic discourse as well as how to involve all voices in the classroom. The teacher is positioned not as the source of knowledge but as the classroom coach or facilitator who is present to focus student effort, provide guidance on scholarship, and set the stage for community engagement through materials and prompts. Over weeks in this classroom I was able to see and inquire about how the teacher created this environment, how they approached their teaching, and investigate potential patterns in how Cultural Intelligence (CQ) manifested itself in teaching practices.

Being on site almost daily for a concentrated period of time enabled me to get to know the teachers in the study well and, like the vignette above, fit into classroom communities. I was a fixture in the building, seen in the halls, seen talking with teachers or student in the commons, and with a space in the media specialist's office. I chatted over lunches with some of the education aides and teachers. Students invited me to participate in their discussions, gave me nicknames, and shared with me their interests, post-graduation plans, sports accomplishments, and even asked questions about my study. Both teachers and students knew me as a teacher—teachers introduced me often as a teacher doing research on teaching. Despite being an outsider from the university, my identity as a teacher allowed me to connect with the educators and students in the building on the routines, stresses, and workings of schools. The intensive time spent in interviews, observations, and informal connecting with faculty, staff, and students afforded me a type of insider status, too. In an optional faculty meeting, I shared with the teachers and administrators present that I felt strange being asked to share my opinion since I was an outsider. The teachers and principal laughed at the idea and stated that that was hardly the case.

The nature of the study's intensity, combined with the multiple forms of data gathered, allowed me to form multifaceted cases for each teacher comprised of data about their classroom

experience and intercultural capabilities, insights about the role of culture in teaching, and observed pedagogical behaviors in the participants' language and experiences. The student's comment in the opening vignette alludes to my situatedness in the school's community. Teachers in each CQ group in the sample contributed then a case of cases, aggregate experiences and practices across disciplines that provide nuanced insight into the underlying understandings and common practices of teachers at each level.

Although the quantitative data, interviews, and observations provided in-depth information and diverse perspectives on the teachers' beliefs and practices, teaching is a complex and multifaceted act of relationships, knowledge, and pedagogy. In this chapter, and the chapters that follow, the complex wholes are pulled apart and components are held up for analysis to understand aspects of practice so that researchers, teachers, administrators, and teacher educators can both make sense of what teachers did in the classroom and, if interested, build upon the findings and conclusions of this exploratory study. The data at times do not fracture neatly into isolated compartments, but often connect to other areas of analysis in a webs of pedagogical practice.

Quantitative Survey Data

Demographic survey responses. Prior to the teachers' CQ self-reported assessment window in September, teachers completed a demographic survey (Appendix B) during their allotted professional learning community time. Out of the school's 62 teachers, 57 (91.93%) completed the survey along with the school's media specialist (total n=58). The survey questions gathered responses regarding the teachers' demographic data such as number of years teaching, age, last degree completed, and licensure area in a multiple-choice format in which respondents selected the option which best fit them. Using SPSS software, frequency tables were created for the responses in order to generate a statistical picture of the school's teaching faculty. Data from

the demographic survey presented a picture of a teaching faculty very comparable to many schools in the United States serving similar racially diverse student populations.

As seen in Table 1 below, most teachers at the school (58.6%) taught for 8 years or fewer with the largest group possessing 6-8 years of experience in the classroom. Equal amounts of

Table 1

Years of Experience

Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2 years experience	8	13.8	13.8	13.8
	3-5 years experience	12	20.7	20.7	34.5
	6-8 years experience	14	24.1	24.1	58.6
	9-11 years experience	4	6.9	6.9	65.5
	12-14 years experience	5	8.6	8.6	74.1
	15-17 years experience	6	10.3	10.3	84.5
	18-20 years experience	1	1.7	1.7	86.2
	over 20 years experience	8	13.8	13.8	100.0
	Total	58	100.0	100.0	

teachers reported that 0-2 years of experience and also over 20 years of experience (13.8% each). In terms of education, the overwhelming majority of teachers at the school (67.2%) reported

Table 2

Academic Degree

Degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B.A.	13	22.4	22.4	22.4
	B.S.	6	10.3	10.3	32.8
	M.Ed.	24	41.4	41.4	74.1
	M.A,	13	22.4	22.4	96.6
	M.S.	2	3.4	3.4	100.0
	Total	58	100.0	100.0	

having earned master's degrees. While many of the teachers possessed an advanced degree, a

Table 3

Years at School Site

Yrs@School

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2 years at school	20	34.5	34.5	34.5
	3-5 years at school	18	31.0	31.0	65.5
	6-8 years at school	3	5.2	5.2	70.7
	9-11 years at school	1	1.7	1.7	72.4
	12-14 years at school	4	6.9	6.9	79.3
	15-17 years at school	4	6.9	6.9	86.2
	18-20 years at school	2	3.4	3.4	89.7
	over 20 years at school	6	10.3	10.3	100.0
	Total	58	100.0	100.0	

sizeable majority of teachers (65.5%) had been in the school for fewer than 6 years with the largest overall percentage (34.5%) having taught at the school for 2 years or fewer. A small percentage, but the third largest group overall, (10.3%) of teachers reported teaching at the school for more than 20 years. The teaching faculty is comparatively young, with the vast majority (72.4%) reporting their age at 36 or below. Despite the low number of years of experience, the teaching staff's largest age group were teachers between the ages of 33 and 36 (25.9%), followed by those between 29 and 32 (20.7%) as seen in the table below.

Table 4

Age of Teachers

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	4	6.9	6.9	6.9
	21-24 years old	3	5.2	5.2	12.1
	25-28 years old	8	13.8	13.8	25.9
	29-32 years old	12	20.7	20.7	46.6
	33-36 years old	15	25.9	25.9	72.4
	37-40 years old	4	6.9	6.9	79.3
	40-44 years old	1	1.7	1.7	81.0
	45-48 years old	2	3.4	3.4	84.5
	49-52 years old	3	5.2	5.2	89.7
	53-56 years old	4	6.9	6.9	96.6
	over 57 years old	2	3.4	3.4	100.0
	Total	58	100.0	100.0	

Questions regarding faculty gender and racial identities were open-ended questions and most teachers wrote their preferred identities. The language from the responses displayed below and frequency table come from how the teachers themselves answered the questions regarding their identities with two exceptions. First, two teachers responding with "Scandinavian" as their

Figure 5

Teacher Racial or Ethnic Self-Identification

Racialethnic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	6	10.3	10.3	10.3
	White or Caucasian	45	77.6	77.6	87.9
	Black or African-American	2	3.4	3.4	91.4
	Latino	1	1.7	1.7	93.1
	Mixed race--more than 1	4	6.9	6.9	100.0
	Total	58	100.0	100.0	

racial or ethnic background were included in the "white or Caucasian" ethnic group as defined by

the participants. It needs to be noted that the term Caucasian is not used in scholarly discourse due to its roots in 19th century pseudoscientific race studies. The teachers themselves applied this term to their own identities despite the term's disuse. Second, teachers who reported their racial identity as more than one group, such as one participant who responded "African-American/white" were aggregated into a mixed racial identity group. Overwhelmingly, the teachers reported their racial or ethnic background as white or Caucasian (77.6%), while much smaller percentages reported their background as mixed race (6.9%), Black of African-American (3.4%), Latino (1.7%). Six teachers also did not to respond to the question (10.3%). In terms of gender, teachers who identified as female on the survey were the largest group (51.7%) with males as the next largest group (36.2%). Six teachers left the question blank (10.3%) while one teacher identified as gender queer (1.7%).

Table 6

Teachers' Self-Identified Gender

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no response	6	10.3	10.3	10.3
	male	21	36.2	36.2	46.6
	female	30	51.7	51.7	98.3
	gender queer	1	1.7	1.7	100.0
	Total	58	100.0	100.0	

Teaching and culture survey responses. The initial survey also inquired about teachers' perceived importance of culture in their teaching practices. Teachers were able to select options on a Likert-type scale with options ranging from culture being the most important consideration in teaching to not important at all. A frequency table of responses was created to capture the respondents' answers. The vast majority of teachers (74.1%) responded that culture was the most or one of the top considerations in teaching. Of this group, only a small percentage (5.2%) indicated that they felt that culture was the most important consideration, roughly equal to the

group that expressed that culture was neither more nor less important than other issues (6.9%). A single teacher (1.7%) indicated that culture was less important than other considerations, while 17.2% of the respondents expressed that while culture was important there are other more pressing concerns in teaching.

Following the question on the importance of culture in their teaching practices, teachers were provided with a list of 9 items on how culture enters into their teaching practices such as

Table 7

Importance of Considering Culture in Teaching

Consider

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Most important consideration in teaching	3	5.2	5.2	5.2
	One of the top considerations in teaching	40	69.0	69.0	74.1
	Important consideration but there are others that are more pressing	10	17.2	17.2	91.4
	Not more or less important than other considerations in teaching	4	6.9	6.9	98.3
	Less important than other considerations in teaching	1	1.7	1.7	100.0
	Total	58	100.0	100.0	

room decoration, teaching materials, and communication with student inside the classroom. Teachers were able to select all that they included in their practices. Individual item responses were tabulated and the results were compiled into frequency tables. The data from the teachers' responses are stated below. Frequency tables for each item are in Appendix C at the end of this paper. Despite the considerable majority of teachers who expressed that culture is an important consideration in teaching, there was less consistency in how culture entered in to their practices.

Teachers were split on the use of room decoration as part of their cultural teaching practices with just over half responding that they do use the classroom space as part of their practice (56.1%). Teachers were more in agreement about classroom materials with the overwhelming majority (72.4%) reporting that they use teaching materials in class as part of the cultural teaching practices. Similarly, 74.1% of teachers reported using lesson activities to address culture in their teaching—the same percentage as teachers who believed that culture is one of the most or most important consideration in teaching. Interestingly, a smaller number of teachers (62.1%) responded that they use assignments with an even smaller number (50%) seeing classroom routines as part of their cultural teaching practices. Teachers responded culture entered into their communication with students both in and outside the classroom (87.9% and 77.6% respectively) and with families (72.4%). Fewer teachers saw the culture of their students entering into outside classroom activities (29.3%).

The survey also contained two open-ended responses about teachers' work experiences outside of teaching and significant incidents that informed their understanding of culture's role in teaching. Responses varied considerably with some teachers not reporting any experiences that informed their views of culture and teaching (15.5%) with two additional teachers (3.4%) who cited work experiences abroad but did not express how these experiences informed or affected how they see culture in the classroom. One group of teachers (32.8%) described instances with their current or former students that re-shaped the way they considered themselves as teachers or their teaching, with two (3.4%) additional teachers commenting how their work during student teaching with an ethnically different cooperating teacher or analyzing communication breakdowns during their first two years of teaching affected their practice. A small number (8.6%) responded that the influence of graduate coursework or professional development affected their thinking about the role of culture in teaching. A similarly small number (6.9%) described experiences where they were either taught or worked in environments where they were an ethnic

minority. Three teachers reported competing views in terms of how they see culture, one stating that it has not been a priority. Another stated that their identity as a multiethnic person enables them to understand the cultures and perspectives of students and the other stating that as a member of a non-white ethnic group, culture infuses their entire life. The remaining respondents (22.4%) provided brief or very general responses to the questions such as their first year of teaching, attending a cultural event, seeing changes in students over time, enforcing school policy, and listening to students. The responses may have had considerable depth of meaning behind them; however, the anonymity of the survey and brevity of the responses made sussing out the meaning impossible.

The overall picture of the school is a young and somewhat experienced teaching staff that is ethnically and racially different than their students. The teachers in this school hold that culture is an important aspect of their practices and reported a variety of ways that this belief is enacted in the classroom. The survey responses provided an interesting base from which to explore how teachers' perceptions of their classroom teaching aligned and intersected from teachers' self-reported intercultural capabilities. The interviews and classroom observations provided an additional opportunity to explore how the teachers understand and navigate culture in their teaching practices.

School Site CQ Self-Assessment Data

Following the CQ self-rated assessment, the Cultural Intelligence Center was asked to compile a report for this study on the participant CQ self-rated assessment data (Cultural Intelligence Center, 2015). As stated earlier, 52 of the school's 62 teachers took the online self-reported assessment as well as the school's media specialist and principal (N=54). The graphs below show the aggregated data for all 54 of the individuals who took the assessment. Of the assessment participants, 33% (n=18) were male and 67% (n=34) were female. As noted above, the demographic survey I collected indicated that one of the participants identified as gender

queer, a category not available on the online self-reported assessment. Shown below is the report's graph of the comparison of the school's teaching faculty CQ assessment scores compared to the world wide norms of the assessment. Teachers' self-reported scores were very similar to

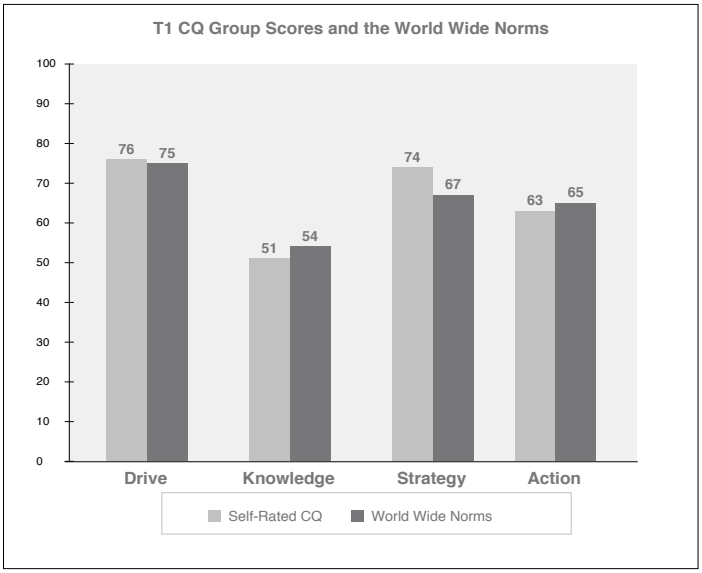

Figure 3. Research site CQ scores compared to world wide norms.

the world wide assessment norms in terms of their CQ Drive, differing by a single point. Similarly, both the teachers' self-assessed CQ Knowledge and CQ Action were only 2 and 3 points below the world wide norm, respectively. What is notable from the above graph is the difference between the teachers' self-reported CQ Strategy score versus the world wide norm—a difference of 7 points.

This difference in CQ Strategy is also seen in the report's graph below (Cultural Intelligence Center, 2015) which breaks down the groups of teachers into the high, medium, and low categories based upon the word wide score results. The graph breaks down the scores for each CQ domain into the top quartile (high), middle two quartiles (medium), and bottom quartile of domain scores (low). As can be seen below, while teachers at the school site assessed their CQ Drive, Knowledge and Action capabilities in roughly normalized distributions, their CQ Strategy

scores were heavily weighted towards the high range of scores with 46% of teachers assessing themselves with scores that placed them in the top quartile of the world wide norms.

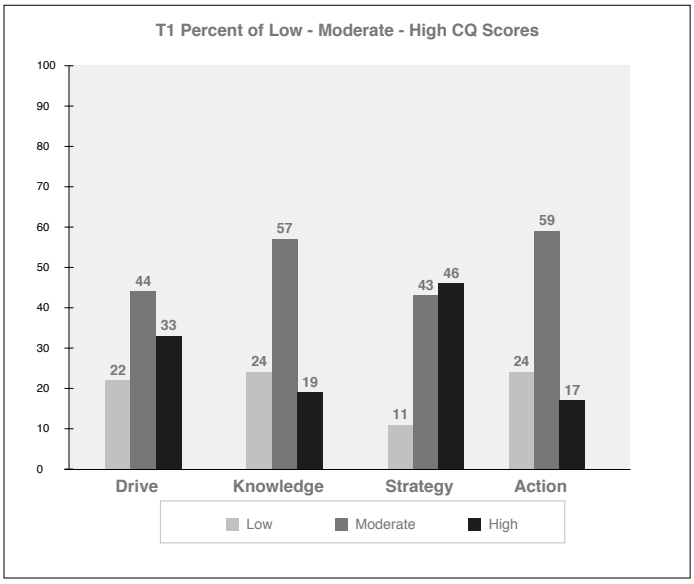

Figure 4. Distribution of research site CQ scores by quartile.

However, as a group, the teachers' self-assessed scores placed them within the middle two quartiles compared to world wide norms for all of the CQ domains as can be seen in the reports' graph (Cultural Intelligence Center, 2015) of self-assessed scores below.

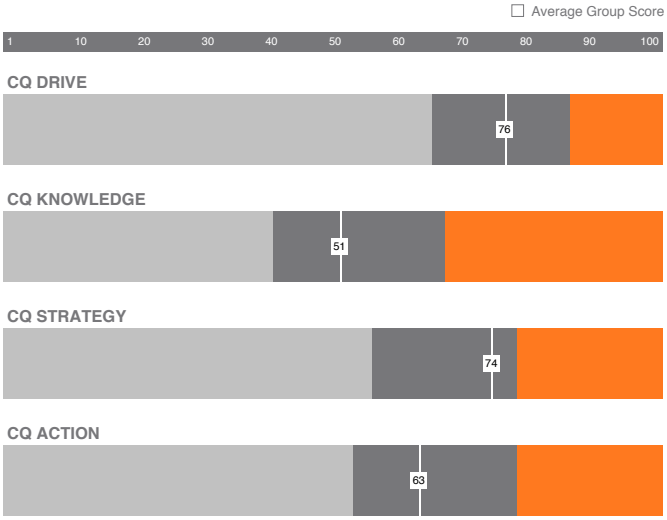

Figure 5. Research site CQ assessment scores by quartile.

Overall, with the exception of CQ strategy, the school's average assessment scores fell within the middle two quartiles of the world wide norms of all CQ assessment takers with roughly normal distributions of scores across world wide norm quartiles for each CQ domain.

Participant Sample CQ Self-Assessment Data

Participant pool. While all teachers in the school were invited to complete the demographic survey and self-reported online CQ assessment, a smaller sample pool was recruited for the interviews and observations. The sample for the study comprised of 18 teachers (total n=18; 34.62% of the assessed teacher pool; 29.03% of the entire teaching faculty), nine of which reported self-assessed CQ capabilities in the top quartile for at least two of the CQ domains and none in the lowest quartile. An additional six teachers had at least two self-assessed scores in the middle two quartiles and not more than one in the lowest quartile. The final group in the study sample were three teachers with at least two self-assessed CQ scores in the lowest quartile. This smaller sample spanned all the academic departments at the school except for business and technology education and physical education and consisted of two science teachers, two social studies teachers, a world language teacher, an art teacher, three English teachers, two English-language learner (ELL) teachers (one of which is also licensed to and has experience in teaching world languages), four special education teachers, a performance music teacher, and two math teachers. The average years of teaching experience for the sample was 7.54 years with a range of 2 years to 18 years in the classroom. Further, the high CQ group's average years of experience was lowest out of the three groups at 5.56 years, followed by the medium CQ group with 8 years, and then the low CQ group with 9.

The pool included 11 female teachers (61.11%) and seven male teachers (38.89%) roughly equaling the distribution of female and male teachers who completed the online CQ self-assessment—65.38% female, 34.61% male (Cultural Intelligence Center, 2015). It needs to be noted that the online self-reported CQ assessment only allows for participants to indicate male or

female for their gender. The participant pool did not share dissatisfaction with the categories on the assessment, either choosing not to divulge their preferred gender identity to me or to not raise the issue with the assessment. Additional categories in the demographic survey that I provided to participants allowed for teachers to define their gender in their own terms.

Overall, while the sample is weighted towards the high end of the CQ scores with nine participants, the sample's medium-CQ group's mean scores closely matched the site's mean scores across the dimensions. Due to the small size of the sample, the descriptive statistics do show variability in the scores, especially in the low-CQ group. Despite this limitation, the quantitative data did reveal notable differences in CQ self-reported assessment scores between teacher groups within the sample and potential emerging patterns for further inquiry. In particular, two of the CQ dimensions, CQ Drive and CQ Strategy, presented stark contrasts between groups especially in the sub-dimensions of CQ Drive-Intrinsic Interest and CQ Strategy-Awareness. These contrasts were further borne out in the interview and classroom observation data. Detailed descriptive statistics for the group is included in Appendix D at the end of the study. A comparison table of study participants' CQ dimension and sub-dimension self-reported assessment scores by individual participant and teacher CQ group (high-CQ, medium-CQ, low-CQ) is also included in Appendix E at the end of this study.

CQ self-assessment score data. The teacher sample's self-reported assessment data for the CQ Drive dimension demonstrated large differences in mean scores between groups. The mean high-CQ teacher sample was 89.44 (*SD*=9.69) compared the medium and low CQ samples of 75.17 (*SD=13.45*) and 56.34 (*SD*=5.86) as can be seen in the box plot below. Additionally, the box plot shows that the clustering of scores between groups as well as the broad range of scores and exceptionally low outlier especially for the medium-CQ group. However, despite these, the

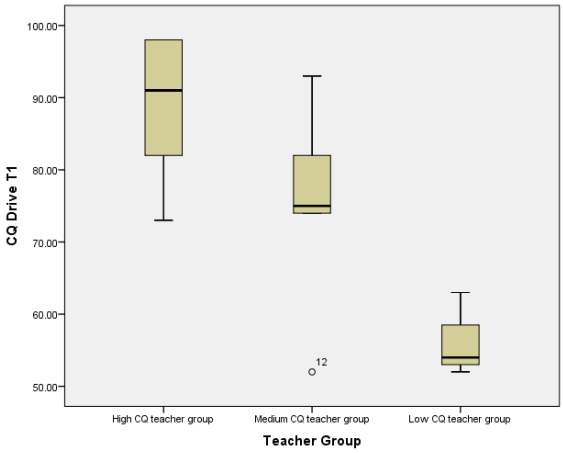

Figure 4. Sample CQ Drive assessment scores.

median and mean score within the medium-CQ group are almost identical (*M*=75.17, *m=75*). For this CQ dimension, the medium-CQ group's self-assessed mean score is just below the school's mean score of 76. While all but three of the high-CQ group's scores were in the top quartile of the world wide norms, all of the low-CQ group's scores were in the bottom quartile. Medium-CQ group scores were mixed, with one teacher in the top quartile, another in the lowest, and the balance falling within the middle two quartiles. This pattern was repeated in the CQ Knowledge data, but more in how the teachers understood and enacted behaviors in the classroom.

In examining the CQ Drive sub-dimension Intrinsic Interest the difference between groups is more pronounced with the high-CQ group mean at 93.56 (*SD*=8.26) compared to the medium- and low-CQ groups' means of 76 (*SD*=12.65) and 43.44 (*SD*=24.54). The box plot

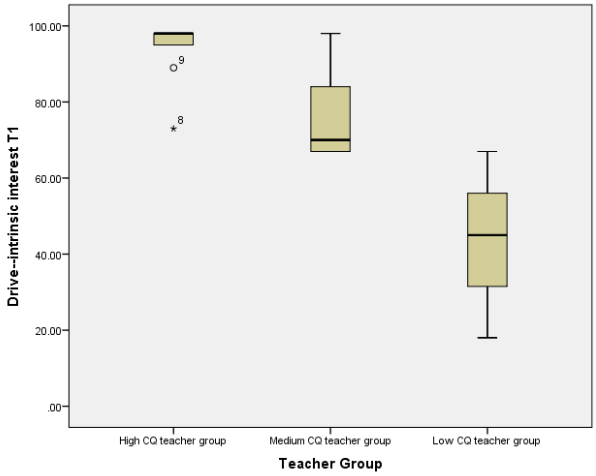

Figure 5. Sample CQ Drive sub-dimension Intrinsic Interest assessment scores.

above shows the concentration of the high-CQ group scores at the upper ends of the assessment scale with two outliers. The pattern's potential significance emerged in the interviews as teachers differed considerably in their motivations for working in the school and with culturally diverse student populations.

The sample data for the sub-dimension Extrinsic Interest presented less stark contrast as the high-CQ group's mean score was 80.56 (*SD*=26.67) while the medium- and low-CQ group's means switched order and were 65.33 (*SD*=24.24) and 70.67 (*SD*=6.35) respectively. The box plot highlights the very broad spread of scores within the high- and medium-CQ group. The CQ

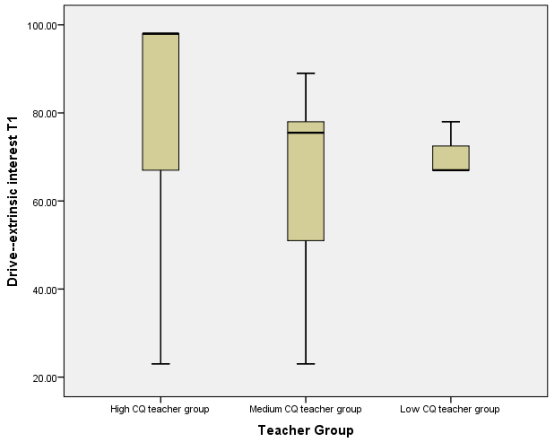

Figure 6. Sample CQ Drive sub-dimension Extrinsic Interest assessment scores.

Drive sub-dimension of Self-Efficacy also presented sizeable differences in mean scores between groups but primarily between the high- and low-CQ groups. Mean score for the high-CQ group was 93 (*SD*=6.82) compared to the medium-CQ groups 84.17(*SD*=10.68); however, the low-CQ group had a mean score of 56 (*SD*=11.00). Similar to the qualitative data on teachers' intrinsic

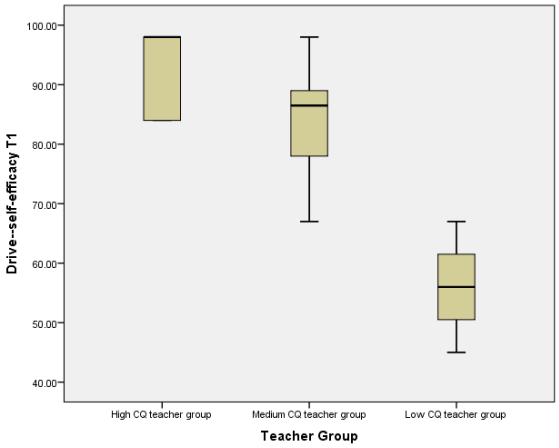

Figure 9. Sample CQ Drive sub-dimension Self-Efficacy assessment scores.

motivation to work with culturally diverse students, the differences between how comfortable teachers were in cultural topics were marked between CQ teacher groups during the qualitative data collection phase of the study.

Similar differences between CQ teacher groups appeared in the assessment scores for CQ Knowledge overall; however, the ranges of scores within groups was far more pronounced than in CQ Drive. Within the high-CQ teacher group, five of the nine teachers' scores fell within the highest world wide norm quartile with the other four in the middle two quartiles (*M*=68.34, *SD*=14.05). In the medium-CQ group one teacher scored within the top quartile, one teacher scored in the lowest quartile and the remaining four teachers scores fell within the middle two quartiles (*M*=47.67, *SD*=15.65). Similar to the pattern of scores in the data on CQ Drive, the low-CQ group's scores were all within the lowest quartile (*M*=27.67, *SD*=13.65). Compared to the site mean of 51, the study sample was slightly lower at 47.67 with a median score of 49 potentially explained by presence of an outlier on the lower end of the score range.

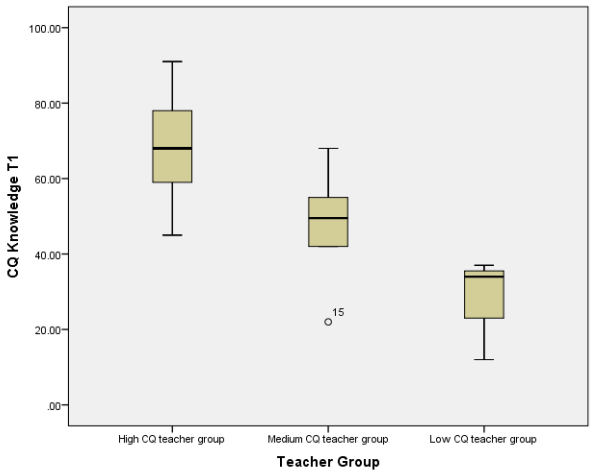

Figure 10. Sample CQ Knowledge assessment scores.

Within the CQ Knowledge sub-dimensions, there was more variation between the high-, medium-, and low-CQ groups. While mean scores between groups are in some cases sizeable, the range of scores within groups especially for the sub-dimensions of Business and Sociolinguistic are very broad. The box plots below illustrate the ranges and spread of each group's scores. Detailed descriptive statistics are in Appendix D of this study. While there is a clear break between the sub-dimension Business mean scores of the high- (*M*=78.11, *SD*=13.92) and

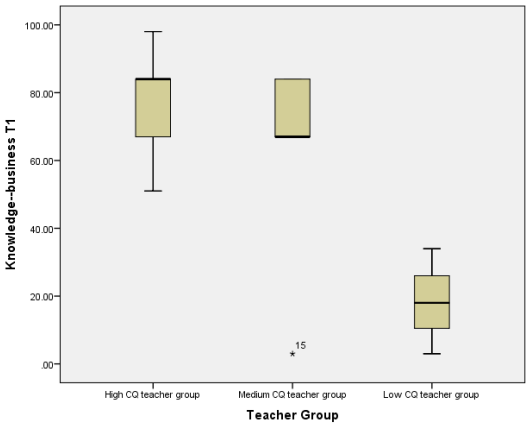

Figure 11. Sample CQ Knowledge sub-dimension Business assessment scores.

medium-CQ (*M*=62.00, *SD*=30.08) groups in terms of the median and mean scores from the low-CQ group, the middle 50% of the high- and medium-CQ scores are actually quite close.

In an examination of the Socio-Linguistic sub-dimension, the high-CQ group mean score is 45.11 (*SD*=33.43) while the means for the medium- and low-CQ groups are quite close at 15.83 (*SD*=15.22) and 19 (*SD*=27.71), but as the box plot for the low-CQ group scores shows, the median is only 3 while the range extends above 50 due to a single teacher's score of 51.

Group mean scores for the Values and Norms sub-dimension differed considerably. The

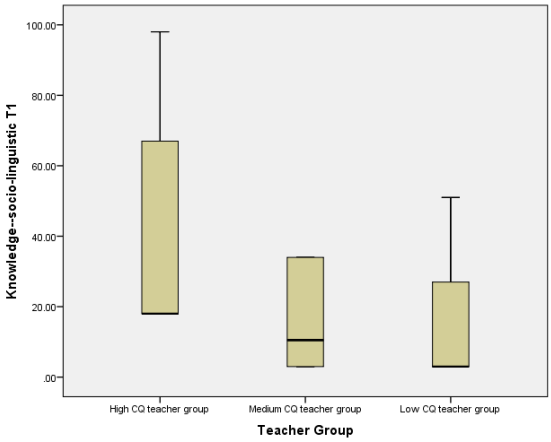

Figure 12. Sample CQ Knowledge sub-dimension Socio-Linguistic Knowledge assessment scores.

high-CQ group had a mean score of 84.67 (*SD*=12.94) compared to the medium-CQ group's score of 61.67 (*SD*=18.35) and low-CQ group's 38.33 (*SD*=32.52). The medium-CQ group's

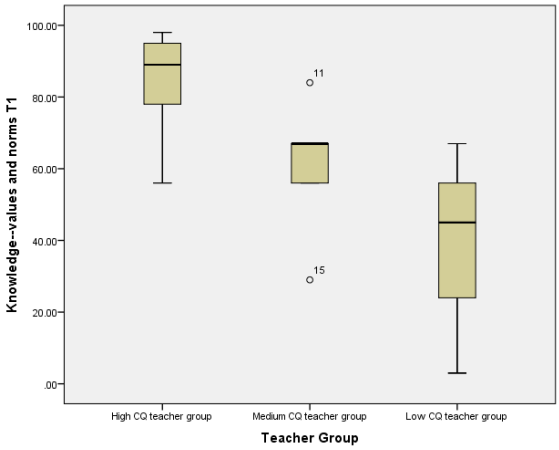

Figure 13. Sample CQ Knowledge sub-dimension Values and Norms assessment scores.

score include two outliers, while the low-CQ group spread of scores includes a single very low

score and a reasonably high score as well. The small number of teachers in the low-CQ group may be influencing the scores to more accurately reflect the differences in between the low- and medium-CQ groups.

In the Leadership sub-dimension, the high-CQ mean score was 65.89 (*SD*=16.59) compared to the medium-CQ mean of 52.83 (*SD*=13.79) and the low-CQ group's 38.33 (*SD*=12.50). All of the groups' data is considerably spread out despite the differences in mean

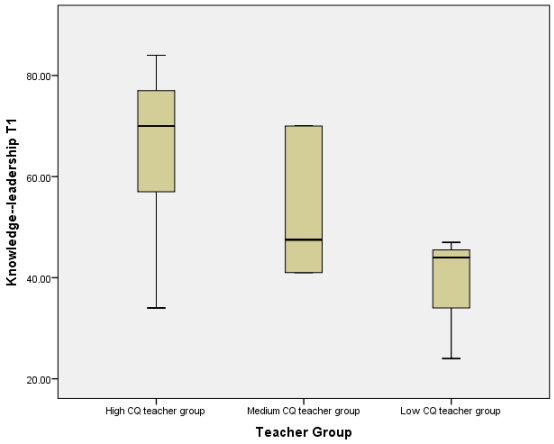

Figure 14. Sample CQ Knowledge sub-dimension Leadership assessment scores.

scores as seen in the box plot above. Within the formal and informal interviews two interesting points were emerged that may potentially account for the differences in knowledge scores between the high-CQ group and the other two and will be discussed in greater depth later in this study. First, four individuals in the high-CQ group specifically discussed learning or living-abroad experiences which were not discussed by members of the other groups. Similarly, teachers also discussed their own learning about culture from their academic coursework or professional development opportunities that they sought out. Secondly, teachers in all the groups tended not to focus on information about cultural groups but instead sought out specific information about students' lives some of which was cultural. The significance and implications of this divergence from CQ's conceptualization of knowledge is explored in the Discussion chapter.

While the scores between groups in the CQ Knowledge dimension are, for the most part, quite large, data from the other CQ dimensions such as CQ Strategy and its sub-dimensions presented interesting patterns and entry points for inquiry in the latter parts of the study. The group report from the Cultural Intelligence Center described earlier showed that greater numbers

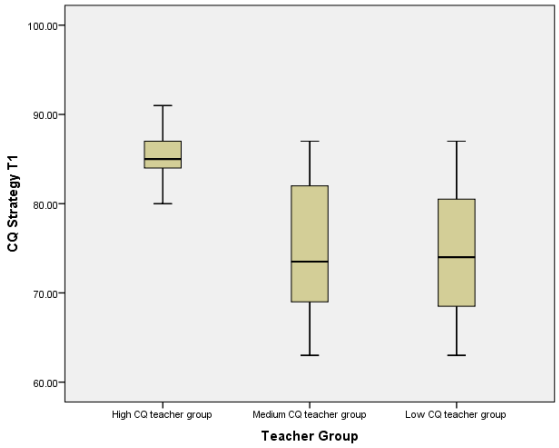

Figure 15. Sample CQ Strategy assessment scores.

of teachers at the school assessed themselves at higher levels of CQ Strategy compared with the world wide norms. The high-CQ group mean score for CQ strategy was 85.78 (*SD*=3.70) compared to the medium CQ and low CQ groups' shared score of 74.67 (*SD*=8.82 and *SD*=12.01). Similar to the group report, the medium-CQ group score aligned with the school's mean score as well. What is interesting about the scores in this CQ dimension is that all the high-CQ group scores were in the top quartile of world wide norms. In examining the individual scores in the sample, the medium group had two members whose CQ strategy scores were in the top quartile, as well as one low-CQ group member.

Most significant, though were the CQ Strategy sub-dimension Awareness scores. Mean score for the High CQ group was 95.44 (*SD*=4.53) higher for this group than in any other CQ dimension or sub-dimension even within CQ Strategy and CQ Drive sub-dimension Intrinsic Interest. Similar to the mean scores for the CQ Strategy dimension, medium- and low-CQ group

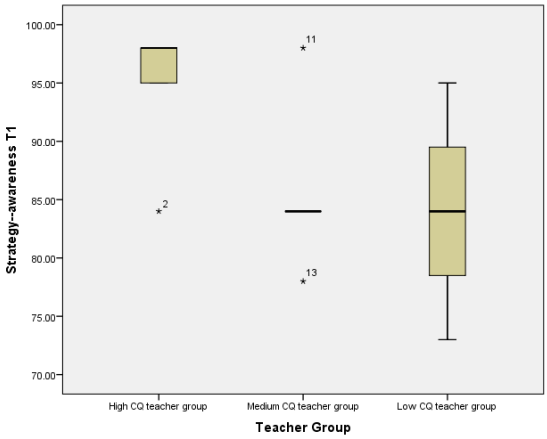

Figure 16. Sample CQ Strategy sub-dimension Awareness assessment scores.

means (*M*=85.33, *SD*=6.65, and *M*=84, *SD*=11.00) were very close. For medium-CQ teachers the mean scores for this sub-dimension were the highest as well, followed by their scores in CQ Drive's sub-dimension of Self-Efficacy. For the low-CQ group the mean score was also their highest, followed by CQ Strategy's subdimension Checking. Awareness of one's own and others' perspectives emerged as a significant theme in both the interviews and classroom observations. Potentially reflecting CQ Strategy's sub-dimension of Awareness, teachers both discribed awareness of their students' perspectives and experiences and then made deliberbate choices in their classrooms to affirm and leverage them in the classroom.

Results for CQ Strategy's sub-dimension Planning repeated the pattern of a higher mean for the high-CQ group (*M*=70.67, *SD*=7.78) and matched mean scores for both the medium- and low-CQ groups (*M*=59.00, *SD*=18.46, and *M*=59.67, *SD*=6.35). The same pattern also emerged

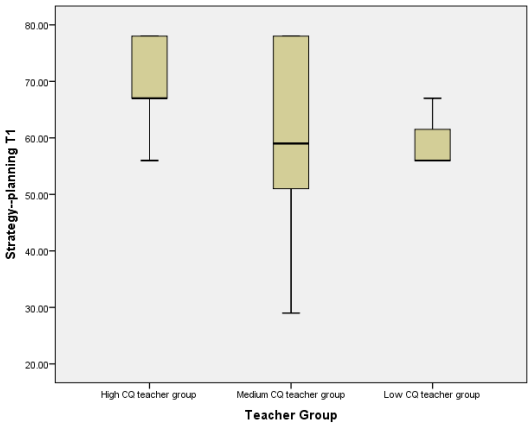

Figure 17. Sample CQ Strategy sub-dimension Planning assessment scores.

for the sub-dimension Checking. In this sub-dimension, the mean high-CQ group score was 90.00 (*SD*=5.74) compared with the fairly similar mean scores for the medium-CQ group (*M*=79.67, *SD*=13.54) and low-CQ group (*M*=81.33, *SD*=18.14). Both the medium- and low-CQ groups

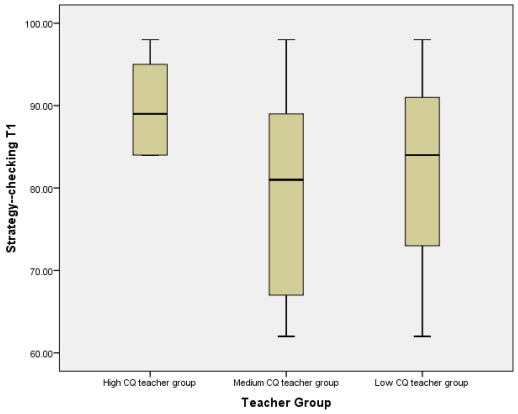

Figure 18. Sample CQ Strategy sub-dimension Checking assessment scores.

scores are considerably spread out as can be seen on the box plot above, with the low-CQ group having a slightly higher median score due potentially to a very high single score among the

group's three members. The high scores between the CQ Strategy and CQ Drive dimensions and the sub-dimensions of Awareness and Intrinsic Interest also emerged in the later qualitative interview and observation portion of the study.

CQ Action results for the sample pool presented an interesting counterpoint to the high scores in CQ Strategy and its sub-dimensions. In CQ Action, five of the high-CQ group's scores fell within the middle two quartiles of the world wide norms. The mean CQ Action score for the

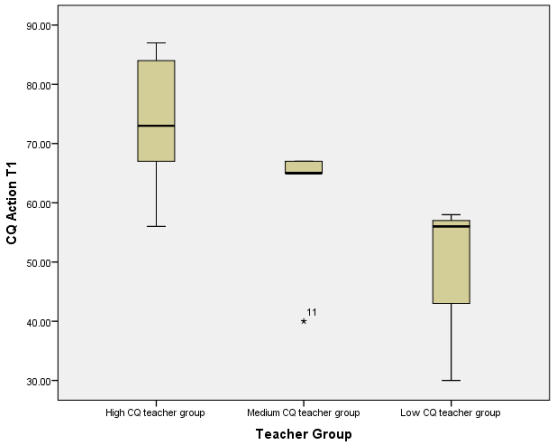

Figure 19. Sample CQ Action assessment scores.

high-CQ group was 74.44 (*SD*=10.70). Within the medium-CQ group, all of the teachers' assessment scores except one, whose score fell into the lowest quartile, all had scores that were within the middle two quartiles of the world wide norms. Mean score for medium CQ was 61.50 (*SD*=10.58). In the low-CQ group two individual scores were within the middle two quartiles of the world wide norms while one participant's assessment score fell into the lowest quartile. The mean low-CQ score was 48.00 (*SD*=15.62).

Mean score for the high-CQ group CQ Action sub-dimension Speech Acts was 73.89 (*SD*=13.72) with medium-CQ mean 10 points lower at 63.50 ((*SD*=10.78). The low-CQ mean

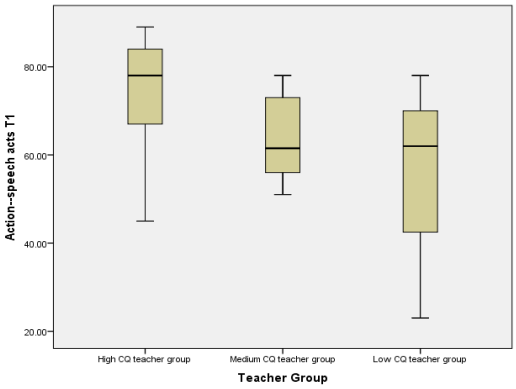

Figure 20. Sample CQ Action sub-dimension Speech Acts assessment scores.

score at 54.33 with a considerable spread to the data (*SD*=28.29). A similar difference in means was present in the sub-dimension Non-Verbal with the high-CQ group mean at 71.56

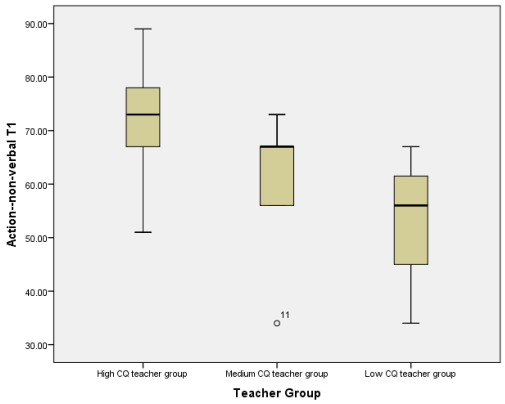

Figure 21. Sample CQ Action sub-dimension Non-Verbal assessment scores.

(*SD*=13.29). Medium CQ group mean was at 60.67 (*SD*=14.18) with the low-CQ group's mean at 52.33 (*SD*=16.80).

Mean Scores between groups in the sub-dimension Verbal presented more pronounced differences as the high-CQ group's mean (*M*=78.33, *SD*=12.66) was greater than the medium-CQ group's mean (*M*=60.67, *SD*=16.61) by over 17 points. The low-CQ mean score was more than 22 points lower (*M*=38.00, *SD*=3.46) than the medium-CQ group's mean. How high-CQ

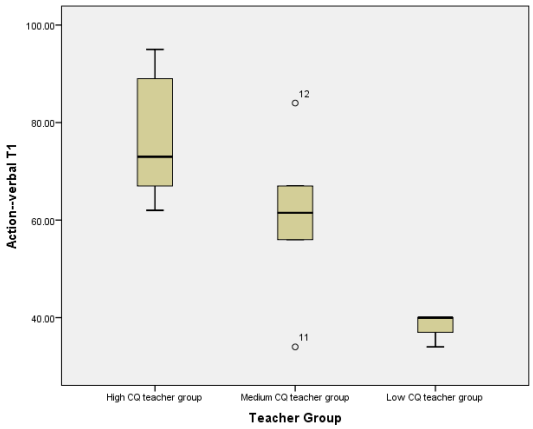

Figure 22. Sample CQ Action sub-dimension Verbal assessment scores.

teachers used their accent or tone in ways that differed from the other CQ sample groups emerged in the qualitative data as well; however, how teachers behaved and how these behaviors fit with other non-CQ factors will be discussed in the following chapter.

High scores in the CQ Action dimension and sub-dimensions for the few in the high-CQ group could be influenced by how teachers understood the questions related to their practice compared to their other intercultural experiences. The four teachers who scored high in the action category had both reported study-and work-abroad experiences and experience, in the case of two of the participants, working with ELL populations. Other teachers in the group may not have brought the same experiences to frame their responses nor the same professional background.

Summary

The school in this study is similar to many schools that serve low-income and majority-minority populations in the United States. The teaching faculty in this school site overwhelmingly

identifies as young, white, female, and with six or fewer years of teaching experience. The teachers in the school reported in large numbers that culture is an important factor in their teaching and that they incorporated into their practices in varied ways. With the CQ self-reported assessment results, the school's faculty is similar to the global pool of assessment takers with mean scores across the CQ dimensions within the middle two quartiles. Despite more teachers assessing themselves in higher numbers than the world wide norms in CQ Strategy, the teachers' assessment scores fell within the world wide distribution norms across the CQ dimensions.

The smaller sample for the second stage of the study was representative of the school in terms of gender, ethnicity, and experience. Almost all the departments were represented by the participants. Within the sample's CQ assessment scores, CQ Strategy's sub-dimension Awareness and CQ Drive's sub-dimension Intrinsic Interest presented entry points for more in-depth inquiry into how teachers understood their practices in the classroom. The findings for this inquiry are in the chapters that follow. Scores in CQ Action presented marked differences between groups in the sample and presented an additional area for further inquiry in the second phase of this study. However, despite the differences between groups, few teachers in any CQ group, discussed how they modified their speech or actions in the classroom. Similarly, while teachers did change their behavior between more formal instruction and informal rapport building, other behavioral changes were not typically seen during the classroom observations. How teachers understood and acted upon the understanding of the role of culture in their teaching practices presents an interesting entry point in examining the relevancy and fit of CQ to the behaviors of teachers. The intersections between the assessment findings and the interview and observation findings, and how teachers potentially manifested the CQ dimensions in practice presents interesting implications for professional development.

Chapter 5

Cultural Intelligence Qualitative Findings

Introduction

The world language class starts out today with a journal entry about which holiday students will write about for their end of the term essay. As students finish their work one of the students talks with their neighbors about having to take online gym. One of the neighboring students asks them why and the student responds that they are not allowed to use the locker rooms at the school because they are trans. Their friends nod their heads, say ok, and the class moves on to a discussion of a popular song.

The teacher and I have talked about the transgender student before. The teacher shared with me that the student is new to the school and describes the student's supportive family. However, what struck me the most is how the teacher characterized their approach to the student. The teacher confided in me that they had never worked with transgender students before but that "doesn't' mean that she needs to be the token transgender student" (follow-up interview, November 17, 2015) meaning that while the teacher had many questions about the student's experiences, it was not the student's job to educate the teacher. Instead the teacher respected the student's boundaries, strove to develop a trusting relationship, was careful to use the student's preferred name and pronouns, and then left it to the student to share information or parts of their experience with the teacher (FF follow-up interview, November 17, 2015).

In this example, the teacher possessed a connate interest in learning about their student and an unfamiliar perspective. Despite their questions and curiosity, the teacher also exhibited a sensitivity to the student's perspective in terms of respecting their personal boundaries and accepting the student without judgment. The teacher in this instance demonstrated care and developed a rapport by informal check-ins with the student and an interest in other aspects of the student's life beyond their gender identity. In the short synopsis of the conversation I had with the

teacher, it can also be seen how a skilled educator navigated unfamiliar cultural territory. The teacher in the above vignette scored high across the CQ assessment dimensions but especially in CQ Drive's sub-dimension Intrinsic Interest and in CQ Strategy's sub-dimension Awareness. From the standpoint of their response to the new student in their class, a glimpse may potentially be offered in how CQ is manifested in teacher practices.

In an examination of the teacher interviews and guided by the preliminary themes from the assessment data, certain CQ dimensions emerged as more important to how teachers understood their teaching practices with culturally diverse students, in particular CQ Drive and CQ Strategy. Within these two dimensions, three sub-dimensions were revealed to be significant in the teachers' understanding of their practices similar to the quantitative findings: CQ Drive's Intrinsic Interest and Self-Efficacy, and CQ Strategy's Awareness. While teachers' responses fit well with CQ's conceptualization of these three sub-dimensions, teachers' awareness also diverged in how they applied awareness to their work with students. These understandings were present in the teachers' interviews but not directly observed in the classroom, but instead may have informed their interactions with students and teaching practices similar to CQ's conceptualization of Drive and reflected in the proposed model of CQ teaching practices in the discussion chapter.

During the interviews, only three teachers described modifications in their behaviors or speech when working with students. Similarly, there were very few instances where teachers changed their speech or non-verbal actions during the observation phase of the study in ways that matched CQ's conceptualization of Action. Almost all of the sample teachers did change their behavior from a what could be interpreted as a formal instructional mode of directive speaking to informal collegial speech in order to signal to students a shift in the types of interactions; however, the teachers did not necessarily describe these actions as intercultural, but rather relationship forming.

Teachers, especially in the high- and medium-CQ groups described how they gather information about students and what they know about students' interests and home lives; however, the knowledge that teachers sought and possessed departed from CQ's conceptualization of knowledge. As will be explored in the next chapter, during both the interviews and observations teachers discussed and enacted practices closely linked to many of Ladson-Billings' (1995, 2009) culturally relevant pedagogy factors, in particular making meaning, equitable relationships, and critical evaluation. The implications of these findings are discussed in the discussion chapter including implications for the identification and future development of *in situ* CQ capabilities for teachers. In the section that follows, the high-CQ teachers' data will be presented first followed by the medium- and then the low-CQ groups' data in order to illustrate any similarities and differences in practices within and between levels. Additionally, presenting the qualitative data in this fashion may provide insight into CQ's applicability to understanding teachers' underlying beliefs and perspectives in their work with their culturally diverse student populations and how these are manifested in their practices.

CQ Drive: Convergence with CQ

Almost all of the high-CQ group had self-assessed scores of CQ Drive in the top quartile of the world wide norms with especially high scores in the sub-dimension of Intrinsic Interest. In the interviews the teachers in the high-CQ group expressed a high interest in cultural issues within their teaching practice, similar to their self-assessment scores. Teachers at the high-CQ level expressed that they also prized new cultural experiences, enjoyed learning about student cultures and experiences, purposefully challenged their own assumptions, and were open to new experiences and receptive to other perspectives. Also, the teachers described feelings of confidence or self-efficacy when engaging in new environments or experiences. As such, many of the high-CQ teachers expressed that the school's population and location was a major factor in choosing to teach there. Although not related to the CQ dimensions and sub-dimensions, many of

the teachers in the high-CQ group expressed a willingness to raise sociocultural issues in their classes demonstrating both an interest and confidence that allowed them to enter into these conversations with students fearlessly. These issues and conversations, as well as the ability to engage students respectfully and confidently, were observed in most of the high-CQ teachers' classrooms.

Teachers in the medium-CQ group exhibited a variety of motivations for teaching in the school and working with diverse student populations such as an interest in social justice issues, call to service rooted in religious convictions, need for a job, or filling the need to have more teachers of color in the classroom. What is notable in this group is that only a few of the teachers were able to state their motivations like the High CQ group, nor were the intrinsic motivations the same as the high CQ group. Similar to the findings in CQ Strategy-Awareness, the medium-CQ group had some motivation in regards to working across culture, but this was not a driver in their practice nor in how they arrived at this school. Unlike the high-CQ group, only a few of the medium-CQ group of teachers indicated an interest in engaging with culture in the classroom. Deriving enjoyment from learning about student cultures or seeing the potential benefit of understanding and incorporating student culture into their teaching was not a theme that arose in the interviews. Lastly, the teachers in the medium-CQ group also expressed less confidence or self-efficacy in dealing with cultural content in their classrooms. The teachers in the medium-CQ group expressed hesitancy and uncertainty around how to incorporate sociocultural issues into their classroom practices and in their interactions with students.

One of the most striking difference in the groups of teachers was the motivation in teaching at this particular school. While High CQ teachers were drawn to the school for its specific populations or social justice stance, teachers at the Low CQ level grew up in the same area or currently lived close to the school. Neither the student populations nor the approach of the administration at the school were stated as reasons for being at the school by the teachers in the

low-CQ group. Two of the teachers in the Low CQ group did not discuss experiences in the community or benefits for teaching in a school with a diverse student body, though one teacher did talk about how they enjoyed walking around the neighborhood and meeting different types of people. Teachers in the low-CQ group did not express the same desire like the high-CQ group for social justice work or for conversations about culture.

Intrinsic interest. Almost all the teachers in the high-CQ group in the interviews shared a high degree of interest, personal and professional enjoyment in learning about their students and their students' perspectives. Teachers in the high-CQ group also expressed their belief that students' experiences and perspectives contributed positively to their courses and added a richness to the classroom communities' learning. This belief in the value of student perspectives and voices may have influenced the foregrounding of student voices in lessons and activities observed in the classroom. Relatedly, teachers in the high-CQ group expressed a personal drive and learning stance and that infuses their classroom practices as illustrated by art teacher, AW:

> In general, I love interacting with people who are different than me because I think that we have a lot to learn from each other as human beings and I think that hanging out around the same kind of people all the time can make you less thoughtful, less open-minded, more just complacent. I like working with kids who are different than me because it is a challenge. It keeps me on my toes. I also challenges me to be empathetic when I don't understand. I think that's like one of the biggest qualities that a teacher needs to have, that empathy (interview, October 26, 2015).

In their response, AW addressed how high-CQ teachers need to work to understand the lives of their students. In a sense, this is a link to the awareness that teachers described in terms of their own sense of their culture, positionality and the students. The other aspect in AW's quote that is significant, and was expressed by other teachers as well, is the possibility that they as the teacher may not understand. This comfort with not knowing or tolerating ambiguity was described by

several teachers and came up frequently in their descriptions of their limited perspectives and needing to be inclusive to the students' experiences to expand learning in the classroom. To the teachers in the high-CQ group, learning about their students and being challenged by new experiences or perspectives is an enjoyable part of their practice and one that they found rewarding and, for some, linked to their vision of social justice teaching.

Related to the teachers' learning stance in the high-CQ group, many teachers expressed academic and professional learning interests that motivated their work with culturally diverse students in this school. Teachers in the high-CQ group viewed challenging their assumptions and worldviews as part of their professional practice and saw reflection and developing an expanded perspective as necessary components. One of the social studies teachers in the high-CQ group, PM, expressed this intellectual and academic link along with the enjoyment of having their assumptions challenged:

> I'm an avid reader of sociology books and things like that, and I watch so many documentaries. I think it's just individual students, and over time you realize that your assumptions are false…I think just every time you have a new class, an individual student or a situation, you just take a step back and be like, "Wow, I never thought about that before" (interview, October 26).

Similarly, TL also described their mix of professional and professional interest as well. As a licensed world language and English-language learner teacher with extensive intercultural experience outside of the United States, TL expressed an academic interest in their work with students similar to PM

> I think actually the past two years I've been having a lot of fun because they're mostly Spanish speakers. Linguistically it's really interesting to me. I've learned a ton of Spanish and can really make connections just because of my French background…I also like

> being the welcoming committee or cultural liaison/bridge…They're fascinating cultures [Salvadoran and Honduran] to me to get to know. (interview, October 27, 2015)

Both statements from PM and TL show the professional and personal value that the teachers in the high-CQ group find in learning about their students. The statements also show the learning stance of the teachers in the high-CQ group. Both of the quotes from PM and TL illustrate the implied connection between the personal and professional interest that teachers in the high-CQ group expressed in informing their practices and the role that their interest in culture has in their practice.

Despite the academic personal interests in student cultures and experiences, the teachers in the high-CQ group demonstrated an awareness of their own positionality in engaging issues of culture in the classroom and how they approached students. Similarly, the teachers did not view their students as abstractions, units of analysis, or curiosities. The students in the high-CQ group teachers' classrooms were respected members of the classroom communities with substantial knowledge and valuable perspectives on the content. This respect extended into how teachers gained new information about students as teachers explained how this was integrated into their building of relationships with students and respectful classroom environments.

Medium-CQ teacher group. Teachers in the medium-CQ group expressed varied motivations for their work in the school. Four out of the six reported that they needed a job due to family needs, or the scarcity of available positions. One teacher found the school a good fit due to their extensive experience with a similar student population in the alternative schools in the city, while another was drawn to the school because of a specific opportunity in a program area. Two teachers in the medium CQ group expressed reasons for wanting to be in this school and working with culturally diverse student populations. One of the teachers, TF, described how their interest in criminal and social justice drew them to Teach for America and ultimately this school after their placement:

> I was always like that. More and more, just through study I felt there being more things that made it seem like maybe kids ... Like education, there's so many gaps in society. At that time, I thought that being in education would maybe be a good place to start in trying to like solve some of these gaps (interview, October 27, 2015).

TF also expressed that their interest drives them to read a lot on the subjects of inequality, culture and the achievement gap through their social media news feeds and groups. While TF exhibits some interest in the topics surrounding culture and inequality, at the core of their motivation is the desire to help students and fix the problem of educational inequality. The other teacher, AC, viewed their work in the school as an extension of their spiritual convictions, viewing their work as service:

> You know, I'd be lying if I didn't say that religion doesn't influence me, because I definitely know that there's a correlation and I know that that heavily affects my practice in terms of charity, doing for the other without expectation. I think that's a huge part of it. Each day that I come I see it more as servant type of mentality, like I'm here, I'm here to serve you (interview, October 20, 2015).

AC described the deep sense of care they have for their students, an understanding of the difficult situations of many of the students, and that they see themselves as an agent to help improve their lives. What was absent in the medium-CQ group's responses though was the same engagement and interest around the experiences and perspectives of their students expressed by the high-CQ group as well as the nuanced understanding of how culture may permeate their classroom spaces nor the same self-reflective stance and challenging of preconceived notions like the high-CQ group.

Low-CQ teacher group. Teachers in the low-CQ group stated very little in the interviews about their motivation to teach at this school based on the characteristics of the school or its

students. Two of the teachers expressed that they wished to stay in the area after growing up in the same region of the metropolitan area or currently live there as illustrated by MT's response

> I don't know, I mean, I just want to be in a high school in the metro area. That was really my only qualifications… I live near here, in the [region of the metro close to the school] so it's not, it's not too far but no, I mean, I like the kids here but I know I would like them in a different school too… (interview, October 20, 2015).

MT also expressed that moving to a different school was disadvantageous due to tenure rules and teacher pay structure. The third teacher in the low-CQ group, ST, expressed the same desire to live in the same area as the school after having grown up in the area and currently owning a home close to the school; however, unlike the other two teachers, ST expressed how they found enjoyment walking through their neighborhood:

> Yeah, so I've always just been right here. So I've always wanted to work right here. Because I like how many different people that you meet. The neighborhood I live in I mean we've got white people, black people, Liberian people, Hmong people, Latino, all on my street. And it's really cool to see kids playing in the street together or walking down the street and saying hey to all your neighbors and you know who they are and you can see where they're from. I like that (ST interview, November 4, 2015).

Despite the interest and enjoyment of meeting people in the neighborhood, the teacher did not express the same interest in engaging with cultural differences in school. Similar to the findings in the medium-CQ group, the teachers in the low-CQ group did not express the same interest or value in the experiences and perspectives the students brought to their classrooms each day or the same self-reflective approach to their own knowledge, perspectives and beliefs.

Extrinsic interest. While high-CQ group teachers talked frequently about their personal interest in culture and new cultural experiences, few mentioned how their interest could be linked to the performance of their job, similar to the conceptualization of CQ Drive's sub-dimension of

Extrinsic Interest. In informal discussions after the score debriefing, teachers balked at the sub-dimension of Extrinsic Motivation and how the questions on the assessment were stated until it was explained to that extrinsic could be linked to being thought of well in their job or professional recognition for teaching well. Seen in this light teachers said that they would probably assess themselves higher. Of the three high-CQ teachers who did not score themselves in the top quartile and the only teacher who assessed their extrinsic interest higher, LG, presented the view that unlike their peers in the high-CQ group, they viewed culture and working across cultures as a necessary job component or professional responsibility akin to understanding their licensure content:

> It's like, I teach English, I need to know how grammar works. I also teach students, I need to know what those are, I need to know what backgrounds they are. I mean …there's the socio-economic factors that are in there. Religious factors are in there. Just understanding all of that, is what you need (interview, October 13, 2015).

Despite the seeing the need to understand student cultures in terms of job responsibilities when I observed LG, they frequently engaged students in sociocultural issues of student interest, chose materials that addressed sociocultural issues, and demonstrated an interest in the student lives both inside and outside of the classroom, and possessed a very nuanced awareness of their own cultural experience and its limitations.

Despite LG's comment, few teachers in the high-CQ group linked their expertise or capability of navigating cultures as a means to gain professionally in their career, but instead viewed these as a disposition or a personal interest that they bring to the profession. While few teachers in the high-CQ group discussed professional benefits or responsibilities for understanding, navigating or engaging with cultural diversity, teachers in the medium-CQ group did not state any benefits or responsibilities that culture played in their work. Similarly, teachers

in the low-CQ group did not state how their work with culturally diverse students provided benefits to them professionally or personally.

Self-efficacy. Teachers in the high-CQ group expressed confidence in their capabilities to work with culturally diverse students and to address cultural issues in the classroom. Teachers in the high-CQ group described how their classrooms were safe places with few discipline issues and where students could come to do work from other classes or hang out. Teachers in the high-CQ group also described confidence in working with culturally diverse student populations, and specifically a sense of ease in not knowing or being the expert. PM described how the high-CQ group teachers face a challenging issue with a student's emerging sexual identity in their course:

> I guess I have a student right now that it's not working, and I'm not really sure what to do, but I did just learn some information about him that I did not know and would not have ever imagined. I'm kind of floundering with that because I don't know what to do… It's a learning time for me. I'm pretty close with the clinic person [community health educator] there. We've worked together since [previous city school]. I'm relying on her to help me with how to navigate through this with him and how to approach it without making him uncomfortable (interview, October 25).

What PM's description shows are several key items in understanding how the high-CQ teachers expressed confidence in their classroom interactions with students. First, is their ability to not know the answer about students similar to or potentially related to teachers' intrinsic interest. In this case, their interest in students' perspectives and experiences in which they were not familiar may potentially push them to understand or explore the issues surrounding the student. Second, the teacher is approaching the student from a self-reflective learning stance and in a manner of non-judgment and respect for the student. The situation with the student is seen as an issue that can be addressed even if the solution is not apparent at the moment and a willingness to access other resources in order to create a successful outcome for the student. The teacher in this

example, like the other high-CQ teachers, exhibited both a sense of personal agency and efficacy in being able to engage with the student as well as comfort in the ambiguity of not knowing the how to approach the situation.

While many of the teachers in the high-CQ group felt confident to navigate student cultures in the classroom, including incorporating student experiences into the content, not all teachers responded with the same feelings of efficacy when it came to issues of sociopolitical or sociocultural content. For example, one teacher in the study, a trilingual teacher who had lived in Africa and whose spouse is African, expressed both intellectual and personal interest in culture especially around language; however, they expressed a lack of certainty and unease in how to raise sociocultural or political issues in class:

> …we have these conversations in PLC about the curriculum that my colleagues are developing around Ferguson. These conversations of how are we best serving our, how can we better serve our African American community. These are areas where I feel under-prepared and uncomfortable. I have, I'm married to an African man, I have biracial children. It feels intensely personal and yet very confusing to me. It's an area where I feel challenged in my profession (interview, October 27, 2015).

Part of TL's uncertainty about how to engage with social justice issues such as racialized police discrimination may stem from their professional experiences outside of the United States and their familiarity with international issues them as opposed to domestic ones. What this may allude to is that international or intercultural experiences are not enough to develop the intercultural capabilities needed to be able to engage with the sociocultural and social justice aspects of culturally relevant pedagogy.

Medium-CQ teacher group. During the interviews the theme of teacher confidence in navigating culture did not emerge as only three of the medium-CQ group teachers addressed their confidence in navigating culture in their classrooms and practices, with two of the teachers

expressing uncertainty in their abilities and effectiveness. MM described in their interview that when they were looking for a job, they had an interest in the dynamic changes that the new principal had for the school but also their uncertainty about whether their prior teaching experience in an affluent suburban district would prepare them to teach in this new environment:

> I was just worried about walking into something that I couldn't handle…The population, that they were not performing like other places where I worked, that because it was a poor, more diverse population, I was worried it would be something that I couldn't handle, a low performing and a diverse population (interview, November 11, 2015).

MM's concerns were rooted in their ability to teach their content effectively and manage the classroom. The other teacher, TF, rather than addressing particular cultural or sociocultural issues or relevancy to student lives expressed more concern about the implications of their teaching practices on students of color based on their frequent reading on social media about educational inequality and the achievement gap:

> Yeah. I don't know if I do a good job at actually making it relevant to their culture. You know? Because they're good at sitting down and being on task, is that just me being good at making them act white or whatever?... There are things that disrespect [me] and I try to have more patience and awareness that it's just a different way of communicating than I was raised. I don't feel like I do anything formally besides try to read, keep an open mind and hopefully it saturates in and comes back out of me. That's not a clear answer, but I try to be kind and considerate…. I don't have any idea if I am doing it well or not (interview, October 27, 2015).

The quote from TF demonstrates concern and awareness about their limited cultural perspective and how this lack of awareness may affect their practice and students. The third teacher, HB, described their feelings of self-efficacy very differently than MM and TF in that their initial rocky

experiences in the city schools led to their eventual enjoyment and development of skills to work with culturally diverse student populations:

> Culture shock. That school was a third white, a third Hispanic, a third African American. That definitely was a thing that happened. It's too bad because had I not been bumped, I might even still be there. I ended up loving it there and having a blast, but it definitely took a year to figure out the dynamics that existed there. When the position here opened up serendipitously … I was not at all deterred ... I'm like, "Yeah, no, this is Yahtzee. Let's do this" (interview, December 12, 2015).

Despite these feelings of confidence in the setting, HB dismissed the issue of culture within their classroom. While they possessed knowledge about the experiences of students and how they were different than theirs, the confidence and efficacy in this example falls more along the lines of classroom management similar to the responses by MM and TF. For the medium-CQ teachers the efficacy is less about navigating culture but more about maintaining order in their classrooms. The other three teachers in the medium-CQ teacher group did not address their self-efficacy explicitly in the interviews but, similar to what I observed in the classrooms of their medium-CQ group colleagues, these three teachers tended to avoid cultural issues in their classes.

Low-CQ group teachers. Two teachers in the low-CQ group indicated that they were less sure of themselves in terms of navigating and addressing culture in the classroom as well as uncertain about where culture might fit and how they might incorporate it into their classrooms and courses. ST described their difficulty in understanding communication styles of the students and then expanded it into their classroom teaching:

> Yeah and it's like I went to a… conference where I just... It was a black guy saying this is how you teach black kids and it's like you got to get them up and moving and you got to use a lot more rhythmic stuff and I'm just like okay great but I don't know how to do that. Like you're telling me what to do but I don't know how to use it in a way that's

> going to make sense and not feel unnatural. Maybe that's part of it also. It's like I need to become more comfortable with that...I don't want to offend kids either by like saying things and that's where I also am a little fearful of like am I going to say something and they're just going to be completely walled off. And I think I've done that with a couple of them already (interview, November 4, 2015).

Similar to the sentiments of the other low-CQ group teachers, ST does not want to alienate their students by saying something that might offend, but they do not know how to incorporate student culture and experiences into the classroom.

The other teacher in the low-CQ group did not state the same lack of confidence or uncertainty in working with culturally diverse students instead listing the experiences they had with different groups of students:

> Well, I have had several cultures of kids and things that I've worked with. When I was student teaching, I had kids who were Amish…I've had the white stereotypical city kids. I've had experiences with quite a few different cultures. We have Somali kids. We have a lot of black kids…I pay attention to their behaviors and the way that they handle things. If it's something that I don't know or don't understand, I ask (HP interview, October 29, 2015).

HP describes more comfort and agency in seeking help from students to understand what might be cultural behaviors. However, during their interview they did not indicate how this information was used in the classroom nor how it may be incorporated into the curriculum.

Based upon teacher responses in the interviews, CQ Drive and especially its sub-dimensions of Intrinsic Interest and Self-Efficacy fit well with how teachers at the site described their motivation to working with culturally diverse students. Teachers at the high-CQ level described their strong interest in culture and experiences with cultural diversity paired with the confidence to explore issues with students. Teachers at the medium- and low-CQ levels expressed

less interest including in their choice of school and more uncertainty about how to address or approach cultural issues in the classroom.

CQ Strategy: Convergence with CQ

Interview responses from the teachers in the high-CQ group presented a multifaceted nuanced awareness of other perspectives and clustered around three conceptual themes: (1) understanding of culture; (2) awareness of self; and (3) awareness of students. Under the two layers of awareness of self and students, teachers' responses were grouped into additional themes that shed light on the complex ways in which teachers possessed awareness of themselves and others in their teaching practices. Teachers in the medium-CQ group responses fell within the same groups; however, the medium-CQ groups responses were more heavily weighted towards factual knowledge and awareness of student home lives as opposed to the more complex understandings of culture and its role in the classroom. In the medium CQ group teachers either intellectualized students' culture or perspectives, expressed concentrated awareness of culture in only certain areas, or acknowledged culture but did not deem it be important. When teachers at the medium-CQ group expressed an awareness of student perspectives, similar to their responses in the section above, these teachers stated that they were less certain about how to utilize these perspectives in the classroom. The awareness of cultural perspectives enters into some of the teachers thinking but is not typically included in course content or class discussions. Within the medium-CQ group, one exception did occur within BD's classroom during the observation cycle as they engaged a student in a discussion on the topic of equity; however, this was an isolated example. Low-CQ teachers' responses demonstrated less awareness and less complex notions of culture and its role in the classroom than the medium-CQ group. Additionally, these teachers' understanding appeared to be less complete as their responses did not address areas covered by the other two groups such as the different perspectives and experiences that students bring to their understanding of course materials.

Understanding of culture. Overall, teachers in the high-CQ group expressed extensive and nuanced understanding of culture and the manners in which it permeates experience. Teachers in the high-CQ group demonstrated a breadth of understanding concerning the range of different cultural identities that intersect individuals going beyond race and ethnicity and including sexuality and gender, youth culture, and socioeconomic status. Teachers in the high-CQ group also described that these identities form worldviews and that individuals perceive and experience situations differently. Teachers in the high-CQ group also had an awareness that both students and teachers bring their cultural filters and identities with them to school each day and these filters and identities affect learning and interactions between teachers and students as illustrated by AW:

> So I think that identity and whatever baggage, personal stuff that you bring with you to school, whether you're a teacher or student, I think that affects everything. The way that you communicate. The way that you deal with conflict. The way you interact with people. This is a job where you have to do a lot of social interactions and really structure that way, whether you're in a meeting or in front of the class (AW interview, October 26, 2015).

In this example, AW illustrates how high-CQ teachers possessed an understanding of the forces affecting their students' and teachers lives. In the classrooms, high-CQ teachers described how students' family structures, immigration status, and religion my influence how students experience school. The teachers in the high-CQ group also had an awareness, and were critical, of schools' potential to force conformity towards a specific dominant culture and for students to lose their identities and demand conformity to a certain dominant culture. As will be shown in the subsequent sections, teachers in the high-CQ group articulated their awareness of their positionality, the perspectives of their students, and culture's role in the classroom.

Medium-CQ teacher group. While the high-CQ group presented a more nuanced and multifaceted understanding of the role of culture in the classroom, the medium-CQ teachers responses presented a less comprehensive awareness and included more factual knowledge about student home lives such as poverty, lack of resources, or communication differences. While teachers in the medium-CQ group expressed an understanding that students possess different perspectives or experiences, teachers were unsure of how to utilize them or in the case of HB, the experiences or perspectives could be viewed as a divisive element:

> I would distill all of my wisdom down simply to "you got to be yourself." You assume that you can just have a normal conversation with somebody, just like you have normal conversations with anybody. If you focus on the ways in which you're different, then I think those differences can become a deterrent to actually bring you together. People are people (interview, December 16, 2015).

The quote reflects an awareness that there are differences between experiences of students and teachers but they are minimized in importance. Unlike teachers in the high-CQ teacher group, who engaged students about differences, the teacher ignored them choosing instead to focus on what they deemed as normal conversations. What values or issues that influence or undergird the teacher's conception of normal conversations are not questioned. HB's quote also demonstrates the range of understanding that teachers in the medium-CQ group presented. For example, TF asserted that they read constantly about topics on the achievement gap and thought frequently about their ability to execute culturally responsive classroom practices, while on the other end HB minimizes the importance of understanding the differences in perspectives viewing them as an obstacle to building connections between teachers and students.

Low-CQ teacher group. The low-CQ group expressed a less nuanced understanding of culture, tending towards a disengaged relativism, and showed some awareness of other perspectives including their own but without the same complexity and nuanced exhibited in the

other teacher groups. The relationship of these other perspectives to their teaching practice was not as developed as the other teacher groups. Especially compared to the high-CQ teacher group, the theme of how elements of culture might apply to their classroom practices did not emerge in the low-CQ teacher group. The low-CQ teacher group also expressed more hesitation or questions both culture and how to incorporate other perspectives into their teaching or whether they even mattered. Two of the teachers struggled to connect culture to the curriculum. One teacher stated that they did not see the connection in their subject area:

> I don't know. I guess, anytime I mean math is pretty ... There's not a lot of culture in math. Numbers are the same everywhere so the only time it comes up is if we get off-topic and that happens (MT interview, October 20, 2015).

In this response culture becomes the distraction and takes away from the learning. MT's response also illustrates how teachers in the low-CQ group understood the role of culture in their practice. This lack of understanding is also reflected in ST's response below that the concept of culture was difficult to unpack:

> I think just coming down to... I can't necessarily see how to pick a culture apart the way I could pick a cell apart. To me it's just all encompassing. It's all these different things that come to make you who you are. If I could dissect it, for a word I guess, like what parts are important and what parts are not important. Or is all of it important. Are there different levels on importance? Maybe that's where I need to think about culture with these kids.

ST's response shows both a lack of knowledge about cultural perspectives and but also an uncertainty and lack of knowledge about how these may affect their practice. Instead of an understanding of how culture permeates interactions or experiences, ST shows a lack of certainty in where to begin and how to understand it. The final teacher in the low-CQ group had more

awareness of culture and potentially identity but expressed it in a more disengaged relativistic way:

> We learn about different people's beliefs, different people's understandings…We study characters, but we talk about them in the way of, that whole, it is okay to be you. It's okay for them to be them. We don't have to say that this is bad or this is good. We talk about it as okay, but then put yourself in the place of that character…Then we also understand how we are different. Everyone's belief systems are different and we have to understand and respect that (HP interview, October 29, 2015).

In the example above, the study of other experiences is constrained within the character and the context of the story. While an acknowledgement of different perspectives is present, the complexities of how the character's perspective is not really examined beyond that it is different than the readers'. Differences are presented as equivalent and without context, meaning, or inquiry into how they affect individuals' experiences. While the respect is a stated value and there is awareness that other experiences exist, the complexities of critical evaluation or context are absent.

Self-awareness—limited perspective. Related to nuanced and complex understanding of culture, the high-CQ group of teachers expressed awareness of their own limited perspectives and experiences. Similar to the self-reported CQ assessment results, the teachers in the high-CQ group described rich awareness of their own perspectives and those of their students. The awareness of these two perspectives were the overwhelming focus of the high-CQ group interview responses. High-CQ teachers were open about their limited perspective with their students, even addressing racism in their families and towns where they grew up. LG described how they approach their different lived experience in their classroom in a frank manner with the students:

> I feel like, honestly, I don't ever try to pretend that I live the same life they do. I own up

> to it. Guys, I'm a white, middle-class male. I don't know what to tell you. …Again, not hiding behind, like, "Oh no. I don't want to bring up racist views." They're already here…Always owning up to that and never hiding from them on that and again, treating them like they're mature (interview, October 13, 2015).

The response from LG demonstrates both high-CQ teachers' willingness and confidence to address their limitations and also a desire to bring student voices into the learning process, trusting students to be able to engage with the issues. The direct confrontation of the different realities was one of two approaches used by teachers in the high-CQ group.

As a teacher of color in the school, MS described a similar approach as LG, but added that despite sharing the same racial background of many of their students, they had an additional role they play in helping their students develop more complex notions of culture:

> I come from a two-parent household. I've gotten my master's. I've gotten my bachelor's degree. That's totally different from some of these kids. Then even like if we are from the same cultural background, just trying to figure out what they are into. I have some Asian students, male students, and I know they're into anime, so I ask them about it. I'm like, "Well, tell me" because I don't know, and I'm not afraid to be transparent with them, regardless of who they are. I think that's what has kind of helped me too is a lot of my kids if they're white, if they're female, if they're gay, they all come in and talk to me because I try to reach them wherever they're at (interview, October 27, 2015)

MS and LG's example show how high-CQ group teachers expressed a willingness to engage their limited perspectives and give their students the opportunities to grapple with understanding different perspectives as well as be sources of learning for their classroom communities as their experiences and perspectives are viewed as valid and invited into the classroom learning. The teachers in the high-CQ group acknowledged that their perspective is only one of many valid perspectives in their classrooms and that student perspectives and experiences were legitimate

knowledge, worthy of respect, investigation, and understanding. This sentiment was apparent in the high-CQ teacher group's responses on the role of student voices and meaning making in their classrooms.

Medium-CQ teachers group. Four of the members of the medium-CQ group addressed their own limited perspectives in their interviews. Three of the teachers' responses displayed a developing awareness of differences between their own perspective and experiences and those of their students. MM illustrates developing awareness as:

> I don't do much differently in my interactions, but I think I probably try to think more about where are they coming from, how is where they are coming from different from me without actually coming out and saying, "How is your life as a black person?" I just try to be aware of that. If they say something that I think, "That's nothing that I know about," then I ask a question so that it's a question about what they said… "I'm curious about what you told me" (interview, November 7, 2015).

How the teacher's experience and perspective may be different from their students, and how these differences may affect their interactions with students is less developed than the responses from the high-CQ group teachers. There is an awareness of differences but the engagement and incorporation of these differences into the classroom is not addressed.

While the three medium-CQ teachers shared some similarity in their awareness of their own perspective to the high-CQ group, the other medium-CQ teacher displayed little awareness in how their own perspective might be impacting their teaching as described in their response about choosing materials:

> When they come into my room, the first thing I say is, "You're not going to be singing Rihanna in here. Maybe at the pops concert at the end. There's a world of good music that is not on your radio." I tend to program a pretty wide variety of music with the idea that no one is going to like all of the music, but that every piece will be liked by

> someone. …You do spirituals, you do your up-tempo stuff, we do your folk songs, we'll bring in something that's really considered "classical", but really, the emphasis, my emphasis is I'm just trying to find music that is quality (interview, December 16, 2015).

For the teacher in this response, a classroom that reflects students' perspectives or cultures in this response is secondary in terms of quality music. Additionally, an awareness or questioning of the standards used by the teacher in their assessment of quality music and their criteria for the selection of music does not emerge in this response. Similar to responses in the other categories, the responses from the medium-CQ group highlight the mix of views at this level as teachers sometimes exhibit understanding more similar to their high-CQ group colleagues while at other times responses that seem to be more aligned with their low-CQ group peers.

For the other two teachers, their limited perspective went unacknowledged but was instead wrapped into their ability to connect with the life experiences of students either empathetically or through similar experiences. BD described the awareness:

> There's not enough faces that look familiar to them in front of them. A teacher can care. A teacher can be there for them. But that cultural barrier is a very difficult barrier for them to cross over. To show you the reality of their lives, last year the student looked over at the wall there and looked at my two children and they said, "So, do you get along with both your babies' mommas?" And I said, "No, it's the same mother." They were like "What?" They just couldn't get over that, wait a minute, you don't have any children with anyone else? No. Their world is that's very normal to do that. That allowed us to have that discussion and that talk. To them it was very unusual (interview, October 23, 2015).

BD's example also shows a level of knowledge and experience with African-American students not shown by most of the other teachers in the medium-CQ group. They show an awareness that their experience has been different in several ways. On the other hand, AC positioned their

experiences as a key factor in relating to their students and a necessary part of how they approach their practice:

> You know, I could think of several examples. I could think of the kid whose mother is in Mexico, and can't come back, and he's separated from her. I could think of the kid who moves from the homeless shelter to another homeless shelter and dad's in jail. The best way to really characterize it is that I see myself in each one of my kids. They do all seem very different, but I've been very blessed in the sense of the circumstance that I grew up in, so I can relate. I think that's a big thing, whether it be a parent that's involved in the judicial system, whether it be a parent that's been homeless, or whether it be being the first to graduate from college. I really do feel like a big part of it is the representation on my behalf with my students that I can pull from certain things in my background, either from myself, or from those who I have encountered (interview, October 20, 2015).

These two teachers in the medium-CQ group stated that their own experiences and awareness of how they are different or similar to the students gave them an edge in being able to connect with students. What the teachers do not articulate is how their own perspectives may not encompass other issues or obstacles that children may experience nor how their perspective may affect their teaching. There is an awareness of student lives but how the teacher fits into the classroom or how they may have a limited perspective is not addressed.

Low-CQ group teachers. Teachers in the low-CQ group expressed little awareness of their own cultural perspectives and experiences in the classroom. Two teachers addressed their limited experiences. The first teacher described how they had never considered how their experiences or perspectives may frame their work with students:

> As far as my own cultural experience in school I don't know, I've never really thought about it before I think, which maybe is weird (ST interview, November 4, 2015).

One other teacher in the low-CQ teacher group did address an awareness of their limited perspective; however, the response was limited to a developing awareness of how their learning style is different than many of their students:

> It took me a long time to come to the realization that they were different than me. For a while it was, I tried to teach the way that I learned and I had to really learn how to teach the way that they learn…. A lot of my kids, it's about actually having it in my hand and being able to use it…. It's about me actually saying the words because they have a very different vocabulary level from what they know when they hear it than what they know when they read it. (HP interview, October 29, 2015).

The example above shows a developing awareness of the teacher's learning style and a need to adapt, but topics like positionality, class, or race did not emerge from the interview. Teachers in the low-CQ group did not bring up topics raised by teachers in the high- and medium-CQ groups such as trust or an awareness of their presence, the valuing of student perspectives, nor the learning stance accompanying an awareness of their limited perspectives.

Awareness of students. In addition to awareness that their perspectives are limited teachers in the high-CQ group also described an awareness that students have different experiences and perspectives, or as one teacher described as their "universes of meaning" (UM interview, October 9, 2015). Teachers in the high-CQ group valued these experiences and perspectives but were careful to keep categories about students flexible. Teachers in the high-CQ group had expansive and ever-growing understandings of their students and saw them as complex individuals who bring factors such as trauma, home stress, immigration status, and sexual identities to impact their classroom experience each day. Teachers in the high-CQ group investigated the worlds of their students through questions and relationship-building interactions in order to inform their work with students. In their English-language learners (ELL) classroom TL illustrates this awareness and and described how it unfolds in the classroom:

> You don't have to follow current events too closely to know that a lot of female minors from El Salvador have, to know what they've experienced to bring them here…There's some things that I don't ask, is the first point [such as immigration status]. At the same time when your content is talking about celebrations and exploring low level vocabulary we talk about everything and anything. The kids always have the opportunity, and in some cases are asked, to make comparisons between cultures to speak about their identity. I try to leave that as open ended in some cases and sometimes flexible (interview, October 27, 2015).

TL described different layers of awareness in their response, the first being awareness of what experiences students may bring to the classroom and how these may impact their experience in school. Second, these teachers are able to access some of these experiences by allowing students to draw meaning and make connections between the content and themselves.

Similar to TL's example of the awareness of student trauma or immigration status, high-CQ teachers' awareness of student experiences also extended into nuanced interpretations of student behavior. Teachers in the high-CQ group paired their nuanced awareness of students in how they observed students coming into their classes and their behavior during the period as described by HD:

> I think a lot of it is, are you aware of where your student is at that day, coming in? You know, can you see where they're at? There's a certain behavior that your seeing, the way that they're talking, is this related to how I saw them enter? What they said to somebody else across the room (HD interview, October 12, 2015).

The flexibility and empathy shown in HD's comments also emerged in the high-CQ teacher group's discussion of equitable relationships and how they handled relationships and discipline in their classrooms. These qualities will be discussed in the next chapter.

High-CQ teacher awareness of student perspectives extended into the relational space

between teachers and students. The high-CQ teacher group's responses included an awareness of their position and how students may perceive or trust them as described by LG:

> [In the previous school] there were a lot of Teach for America kids… they were of the mindset of, "I'm going to teach poor black kids. I'm going to make a difference." Not to say there's anything wrong with that. I'm not going to let my personal feelings about Teach for America in here, but I'm going to say why would you go in to a building like that when you know they already have a distrust of white people and some of them have never even met white people (LG interview, October 12, 2015).

In this example, LG shows an understanding of their position in the classroom while also critiquing the deficit narratives or savior mindsets that some teachers embody when they work with low-income students or students of color. Underlying much of the teachers' discussion was the understanding that there are layers to their teaching and interactions with students. The teachers in the high-CQ group described an awareness of their own perspectives and positionality, the experiences and perspectives of their students, and the interplay between them as they unfolded in the classroom.

Medium-CQ teacher group. Medium-CQ group teachers presented a wide array of responses concerning awareness of student perspectives. Two teachers described how their similar ethnicity and personal experiences allowed them to better understand and connect with students than their peers, demonstrating an awareness of some aspects of their students' lives. The other teachers in the medium-CQ group articulated more of a developing awareness about the experiences and perspectives of their students. MM expressed this developing sense of awareness but without a clear sense of how to engage with it in the classroom:

> My eighth grade class is much less diverse than my other classes and I don't feel like I do a lot differently with the classes that are more diverse. Again, part of me says, "You're all the same. I treat you all the same. I do the same thing with everybody," but again, there is

> that part of me that's going, "We are not the same. You are not coming from the same place I am. You are not coming from the same place that my less diverse class is" (interview, November 7, 2015).

The awareness in the response is present but the understanding of how it might affect the classroom and practice is still developing. Similarly, the connection between student perspectives and experiences and how these may affect classroom interactions was largely absent from the medium-CQ teacher group as only two teachers described how factors such as their students' prior negative educational experiences might lead to lack trust in their teachers. In these responses, how to incorporate this awareness in the classroom was uncertain.

Low-CQ teacher group. Teachers in the low-CQ group expressed less awareness of their students' perspectives than the high- and medium-CQ teacher groups. Teachers in the low-CQ group presented a range within their limited awareness than the other groups. One teacher expressed frustration in not understanding how to relate to their students and sensed that this might affect how the students engage in the learning. The two other teachers both indicated a limited awareness that students have different experiences or points of reference than their teachers. MT described how they understood that students might not be familiar with examples used in their math textbook and adapted word problems:

> With word problems, if I'm doing a word problem, they may not know what football is, so maybe I'll do a soccer problem or something like that or deck of cards, a lot of kids don't know there's 52 cards in a deck and they don't know the four suits (interview, October 20, 2015).

In this example, like with all the three low-CQ teachers, there is an awareness of difference but the awareness is shallow and attempts to address these differences are limited or non-existent. In one unique response, HP described how they increased their awareness of student behavior through the help of a student in a previous teaching assignment:

> She was a high-level kid and she liked my shoes. That was the connection for her. I went to a lot of her games and she and I would sit and we would talk and I recommended books to her. She would come up and she would be like, "[HP] it's too hard sometimes." I'd be like, "Which part of it is too hard?" She'd be like, "Well these words. We don't know these words." … That's when I realized when it got too hard, a lot of them shut down, which is something that I literally never even thought of or comprehended because it was never my ... I would just get a dictionary or I would ask. They were not going to say, "Hey I don't know what that word is, because everyone else isn't saying it. Then I look stupid. I don't want to look stupid" (interview, October 29, 2015).

While the teacher leveraged student perspectives and integrated the differences into the classroom, the experience was a struggle. Also worth noting is that unlike teachers in the high- and medium-CQ groups, the effort came from the student as it was the student who approached the teacher to help the teacher make sense of the issues that were unfolding in the classroom.

Actions: Informal and Formal—Divergence from CQ

During the interviews only two of the teachers in the high-CQ group, both ELL educators, discussed how they adapted their language, speech or non-verbal behaviors in their teaching practice with culturally diverse student populations such as slowing their speech, selecting familiar vocabulary, or in one case using the students' first language. However, in the observations almost all of teachers provided examples of how they navigated their culturally diverse classrooms. These teachers exhibited a great deal of individual variability in how they worked with diverse student populations in their classrooms. Instead of CQ's verbal, speech and non-verbal behaviors that shift or change in interactions with cultural groups, teachers in the high-CQ group exhibited a highly individualized and personally effective ways of building relationships with students. This individuality were frequently referenced by teachers in their interviews as described by a response after a classroom observation in MS's English class:

> I think with me, I'm just very open myself up here in front of them. I don't try to be anything else than that and I think they appreciate that. By me being real, that just makes them draw into me I think. Then they're just always willing to just share (follow-up interview, December 7, 2015).

For MS, this individuality allowed them to engage in critical inquiry of literature and engage students in conversations about racial tensions. As MS describes being real means an honest interest in students, their experiences, and even about the teachers limited or different perspectives, in order to build trust in the classroom. This trust was central to the teachers in the high-CQ group but how it was developed differed greatly between individuals. Teachers in the medium-CQ group also exhibited the individuality which allowed teachers to push students and engage them in learning. However, unlike the high-CQ group, the cultural content in the classroom learning was not present.

In only a few cases, teachers across the CQ groups modified their voice tone. Sometimes teachers matched the speaking style of the student they were speaking with, while most other teachers shifted the content of their speech from formal to informal language and at times incorporated slang phrases such as "on point" or youth culture references. Only two of the teachers in the sample, one a high-CQ teacher the other a medium-CQ teacher, were seamless code-switchers who changed their vocal patterns, language choice, and even accent rapidly between student groups, for example transitioning in and out of African-American Vernacular English. A few of the other teachers in the high-CQ and medium-CQ groups discussed code-switching in their classes and informal discussions with students, but this was an explanation or discussion rather than an enactment or behavior. Many teachers altered their speech between informal colloquial chatter with students in side conversations or transition moments in class to more formal directive speech for instruction. However, despite this common occurrence, there was not an observed set pattern or style for effectiveness in terms of how voice or verbal patterns

were changed. Instead, it appeared that each teacher found individual ways to connect with students, build relationships, and communicate effectively with students to signal that the time for more formal instruction would begin. In this sense, instead of a picture of teachers who were culturally fluent and able to enact the slang, behaviors, and speaking patterns of their students, the teachers presented behaviors in which they used their language and verbal behaviors to indicate when informal interactions and social capital building were happening versus formal instruction.

In this sense, the changes in verbal patterns were not always products of cultural awareness or adaptation but were determined more by the personality of the student, their readiness level, or situational such as cajoling a student to get them to work or dropping their tone to handle discipline. Many times, teachers changed their verbal behaviors as part of their establishing a relationship with a student, falling into a more conversational or informal tone or by using humor. What did not emerge, however, was the use of specific vernacular speech patterns, gestures, or even slang for all teachers. Some teachers could effectively use the language of students or change their speaking style, but others did not and yet were still appeared to be effective at building social capital and trust with their students. Instead, a more complex and nuanced picture of how teachers connect with students and then used these connections to enact culturally relevant pedagogy emerged. Teachers were, like in knowledge and in CQ Strategy-Awareness, skilled information-gatherers and relationship-builders. What differed between CQ groups was where the teachers took the relationships—high-CQ engaging with cultural issues or social justice, for instance—and the types of information that teachers gathered. Both of these will be discussed in this chapter in the section on knowledge and in the subsequent chapter on sociocultural topics and critical evaluation.

Changing verbal and non-verbal behaviors. Five teachers did change their verbal and non-verbal behavior to match students and more sometimes incorporated slang into their speech, and in one teacher's case, to change the language of instruction to accommodate the needs of

their ELL population. However, these behaviors were less typical or frequent in classroom behaviors. Similarly, in two of these instances the teachers were ELL teachers and worked specifically on language acquisition with their students, potentially accounting for at least some of the changes in their speech and vocal behaviors. In other instances, I observed teachers use a change in voice for discipline such as in one of PM's observations where I watched her reprimand the class as the students talked over each other during a discussion. PM raised her voice and stated "Ya'll are doing too much now!" which was followed by immediate silence of their students (observation, November 9, 2015). Similarly, AW used a similar style reprimand when a table in their art room struggled to stay focused on the work. With a sweep of their arm and a hand raised to the students as AW turned, her voice lost the joking and upbeat tone that they typically use, and they barked to the students "Don't care. Not sayin' any more about it" (observation, November 30, 2015). As the teacher stormed away the students quieted and seemed to understand the teacher's frustration. In both cases, these were rare changes in speech and the only ones I witnessed. PM has a direct communication style which they said has been effective with the students they work with (interview, October 26, 2015) and personal and professional experience with culturally diverse populations but despite these experiences they very rarely altered their classroom behavior or voice tone.

In another class, I watched a young teacher, MS, transition from passing time to starting class in an illustration of how teachers used the language and communication patterns of students to code-switch. As the kids walked in, the teacher greets some students in Spanish, fist bumps several kids, and then uses slang and vocal patterns to match some of the African-American males. MS recognizes kids by name and changes her jokes and behavior with each. She high fives a white kid, drops into slang and shakes hands with an African-American student like the kids do with each other. She even acknowledges to the class that she only jokes with kids in certain ways that she knows and knows that they can take. She teasingly mirrors the behavior an Asian student

uses to get her attention to recognize her, extending her hand high in the air and saying the students name in rapid succession. She asks an African-American student if he "got a whuppin" and then changes her voice tone and inflection to match a young white woman to talk about sports. Almost all of the students are recognized by the teacher and the teacher's behavior flexes to match them the whole time. Despite the large class and the informal tone, the teacher commands respect. Once the bell sounds, MS transitions from loud, energetic, and informal to quiet and businesslike and the class quiets down almost immediately (observation, December 3, 2015).

I asked MS about their changes in communication styles and how they see their work in such a culturally diverse class. The teacher responded:

> I think it's funny too because I think within me, even though I'm African American, I think I relate to some of other things that the kids like and enjoy. Like Jessica over there, she's really into science and stuff. I've been trying to really get her engaged in that and be like, yes girl power. I know you're really about that.
>
> I think I've been able to realize what they're all individually interested in and then that's how I've been able to still communicate with them, so they don't feel like, yeah she's this Black teacher, she doesn't relate to me. That's something I've been really trying to, especially with this group, is see what they're all about and be better at ... I've been trying to be really conscious about that (observation follow-up interview, December 7, 2015).

In this example, the teacher states that it is not about co-opting a set of behaviors to match the students' but instead, being authentic and getting to know the students and their interests. For this masterful code-switching teacher, accessing and understanding student interests was at the core of how they connected with students and less about adapting to different student cultural behaviors.

Similarly, in a different instance with a talented young African-American male student in their class, MS engaged him in his writing and offered feedback on his extensive draft of a theme paper on *Their Eyes Were Watching God*. In between comments about his writing ("I see what you are trying to say, but you need to finish up one topic in your first paragraph before you move on to another one" and "You always want it to connect back to the thesis. …I know you are trying to show the progression of the idea") the teacher jokes with him, at one point stating "James! If you were in my house [feigns slapping]. I'd slap your lips" at which the student mocks horror and laughs (observation, December 18, 2015). With the same student and in a single interaction, the teacher changed their speech from formal to informal, built a relationship but also engaged in formal instruction and academic feedback on the process of writing. On the surface, it appears to be a form of code-switching but with this individual student, MS saw their behavior changes for what is needed in the interaction: informal speech for relationship-building and formal speech for instruction.

MS's explanation of how they see their connections with students matched many of the other high-CQ teachers' behaviors in the classroom. Even in MS's classroom I watched them shift in and out of formal academic language with different student populations, signaling relationship time and then shifts to formal instruction. Instead of co-opting or performing to match their students, the teachers used their language and behavior to signal to students that the times for relationship-building and other times for formal instruction. The teachers saw these interactions not as much intercultural acts but instead pedagogical ones.

Medium-CQ teacher group. Only a single teacher in the medium-CQ group consistently changed their verbal and non-verbal actions in the classroom and utilized student cultural reference points or slang to help unpack the content or elicit student responses. In helping their students understand the plots of a story, AC demonstrated using student slang to help make curriculum connections for the students. In their classroom, AC instructed students to find

examples in the story, and they used slang to engage the students and to make the more technical language of the English standards and learning goals accessible. In pointing out the rising action of the story the teacher exclaims "Oh snap, something is going to happen!" and then gets the students to call out parts of plot they see in the story "Say it louder man! Welcome! Welcome!" As the lesson turns to characterization, the teacher hooks the students with slang and reference points— "Are they always beggin'—gimme some of that, gimme some of that…Do they play tricks on people?...Are they a baller? Do they have some fresh new Jordans?...Do they have good hands? Are they a fighter? Do they live that life?" (observation notes, November 11, 2015)—before switching back to more formal academic terminology. Similar to the high-CQ teachers, this behavior was a strength of AC's but it belied their own stated lack of awareness or capability to engage student perspectives and experiences in the classroom. Similarly, this use of slang and cultural references was a particular strength of one teacher and not seen across all the teachers in this group, similar to the findings in the high-CQ group. Teachers within the medium-CQ group more frequently asked questions about student activities or birthdays but the conversations, unlike in the high-CQ group, did not delve into topics such as identity or cultural appropriation but instead remained on the surface or in areas of commonality and shared interests.

Low-CQ teacher group. In their interviews, none of the low-CQ group teachers discussed in their interviews how they altered their behavior or speech to match their students'. Similarly, during observations, the low-CQ group teachers did not modify their speech or behaviors with students. In contrast to the adaptions made by the two high-CQ ELL teachers, in low-CQ teacher's class which had several groups of students who received language aide services, I watched the teacher use the highly technical vocabulary of their subject and at a rapid pace without variation. While the teacher did use many visuals for the course and provided frequent opportunities for one-on-one help in class, I did not observe their speaking speed or vocabulary change to adapt to their students. In one class session I watched a student translate for their peers

during both lecture and during help sessions. I asked the teacher about how they adapt to the range of language abilities in their course after class:

> I don't know how to…I try to use pictures when explaining sounds but I do that for everybody. I mean sometimes I'll ask Claudia to translate...I wouldn't if it seemed to happen naturally, because I don't want to put that burden on a student, but they do it anyway…Even these boys I would see do that too. You'd say something, and in the work time, they're going all of the place (MT follow-up interview, December 3, 2015).

The language issues of the students are not really understood and the teacher referred to the language aide who visits class periodically to help the students. Additionally, in the interview segment above, the teacher refers to a group of West African boys who also translate for each other. Potentially linked to the teacher's lack of awareness or understanding of other communication styles, the boys' behavior was often perceived as disrespectful, and subsequently corrected, whereas the Spanish-speaking girls such as Claudia were not considered disruptive. During my observations I sat close to the West African boys and was able to overhear their classroom conversations. The conversations were mostly on-task as they helped each other with the assigned problems. Their perceived interruptions—which were very frustrating to the teacher—were to seek help. There were some language issues with the boys and they did at times have a language aid, but the teacher never slowed their speech or modified their instruction. It is worth noting however, that the teacher did work individually with students during the class and exhibited patience and perseverance when multiple explanations were required. However, for the instructional side of the class, the pace was very fast and technical, appearing to disregard the fact that for these students, English was not their first language.

Formal and informal signaling. All teachers in the high-CQ group used their language or behavior to indicate to students the transition from relationship-building to formal instruction. Some teachers were very deliberate about their use of space and where they positioned their body

in the classroom to indicate that they were providing formal instruction. These teachers employed actions learned in district ENVoY classroom management trainings based on the research of Grinder and Hobbs (1996). In ENVoY, teachers learned behaviors such as where to position themselves within the classroom to signal to students when formal instruction was to begin, how to approach students from the side to avoid confrontations, and how to gradually disengage from a student interaction. The teachers in the high-CQ group used many of the ENVoY strategies, but also undertook deliberate actions to signal to students when informal relationship-building was taking place in the classroom such as moving to student table spaces, lowering their body position by sitting in chairs to be at student eye level rather than standing when speaking with students, and inquiring about student activities and interests. Their speaking also changed as a way to potentially signal to students about which type of communication was occurring. LS's science class is typical of these formal and informal signals. The class begins with student work on iPads. When their preparatory work is done, the teacher draws their attention to the digital whiteboard at the front of the classroom for instructions. When the teacher gives instructions their speaking tone is directive, deliberate and lower in tone, often dropping lower in pitch at the end of instructions. Following the formal instructions, the teacher circulates around the student tables and they chat with the students asking them questions about their progress as well as their interests and activities and listens patiently while students talk. They frequently check with table groups for understanding using their voice in a higher pitch, quicker cadence, and often accompanied by smiles and shifts to a higher tone at the end of a sentence to encourage invite students to talk. When a student is off task a serious lower tone returns to redirect behavior (observation, November 17, 2015).

Teachers in the high-CQ group found myriad ways to engage and connect with students. For example, in one of FF's classes, a student asked the date and the teacher responded in French and then added that it was her dog's seventh birthday. As the lesson concluded, the teacher

circulated around the room and talked with students about their other classes and interests. With one group of young women she engages a student about their upcoming kick line performance at the school pep fest that afternoon (observation, December 4, 2015). The communication between FF and their students took the form of two-way conversations, the teacher sharing information about themselves and also inquiring about the students' interests. The same teacher engaged in this behavior when conversing with student who were worried about the loss of the school's popular band teacher. FF listened intently to the student concerns and then offered their own experience in band and how the teachers tended to be really engaging and fun (observation, November 10, 2015). Other teachers connected with students about television shows the students were interested in such as AW's pre-class discussions with students about what they saw on Project Runway the evening before (observation, November 2, 2015).

Teachers at the high CQ level saw informal exchanges as an essential part of their practice and part of the deliberate way in which they drew students into trust and learning. While the actions and behaviors can be unpacked for analysis, these informal behaviors and signals must be seen in the context of building social capital and developing a classroom community. Potentially related to interest and awareness, these informal exchanges may have allowed these teachers to build trust and then explore sociocultural topics with their students.

Medium-CQ teacher group. Similar to the High CQ group, the teachers employed behaviors that were associated with their own personality, experience, or comfort in building relationships with students than what appeared to be overt intercultural acts. For some teachers, this meant using student slang and references to popular culture, while for others humor was effective. What was not seen however were a set of common behaviors used across the board to connect with culturally diverse student groups similar to what was found with the high-CQ teacher group. What was present in the behaviors of the medium-CQ group teachers, as with the

high CQ teacher group, were informal speech acts used to signal to students that the time to build relationships was happening versus the formal instruction.

Two others were more comfortable with slang and at times changed their speech to reflect the patterns of their students. Teachers who engaged in slang or vernacular speech patterns based their decisions typically on the relationship with a particular student. Instead of being a cultural act it was rolled into an individual strategy based on deep knowledge and existing relationship with the student. BD for example used slang heavily in greetings such as "playa" with one student and it was successful to advance learning for that student. While the intent of the greetings are part of a complex pedagogical act to develop a relationship and later leverage it for learning, it animates the need for intercultural competence skills to engage the student.

However, with a new student BD, changed their speaking style to the more formal instructional language until they got to know the new student better. In one class I watched BD engage the student about their responsibilities at home and the student shares about taking care of her animals. The teacher continued to ask probing questions and they find out that the new student is a guitar player (the dog is named Gibson—she tells him that it is named after the guitars and she plays both acoustic and electric). The teacher turns the conversation to music and what the student likes (observation, December 14, 2015). In this example, until the teacher finds out more about the student, they hold back on how they alter their speaking style and whether the relationship with the student will be more formal or informal. BD confided to me that this new student has emotional issues and they know to proceed slowly with building the relationship or the student may shut down. As a result, the interaction with the new student, BD kept the tone more distant and inquiring, very different than the familiar greeting the teacher gave to the student who had been in class since the beginning of the year. The following day I observed the teacher engage with the student about the music played over the classroom speakers. The teacher found music that the student said they liked during the previous day's class (observation,

December 15, 2015). The teacher's behavior in the interaction is informed by a developing knowledge of the student and not a cursory read of her ethnicity.

These findings may suggest that instead of stereotypes or generalizations about how teachers need to speak with Black children or Latino children, teachers need to find relational strategies and communication strategies that foreground the teacher's knowledge of the student and development of a trusting relationship first. It is a move towards understanding students and their needs versus applying a label and set of attributed behaviors on them.

Low-CQ teacher group. The low-CQ group teachers did discuss how they use informal inquiry to connect with students. Teachers stated that they would ask students about their day or activities and would use the time between classes to greet students at the door of their classroom. However, unlike the other two teacher groups, there were fewer instances of informal relationship building and fewer instances where they would engage with students during class the same way that the teachers in the high-CQ group did. The hallways or thresholds were for rapport building while the classroom was for formal learning. HP was actively connected with students outside of class during activities they advised and attended sports, but their view on how the informal teacher-student relationships did not extend to how these could be developed for learning:

> …for whatever reason, every school I've been in, there were some male students who always just needed that extra push. For whatever reason, they gravitate to me because I will be nice to them and it's like, I don't want to say like I'm their mom, but it's like that nice enough role and then they gravitate to me (interview, October 29, 2015).

HP went on to describe how these students became their advocate and established HPs' credibility with other students. Unlike the high- and medium-CQ teachers, HP places the responsibility of building relationships and establishing their credibility as a teacher on their students instead of the teacher initiating and cultivating the relationships.

In the low-CQ teacher groups, their class were about formal instruction and lacked the same fluid informality and teacher-student relationships exhibited in the higher-CQ group classrooms. While teachers in the low-CQ group provided work time and help time for students, there was seldom the informal rapport building witnessed in the high- and medium-CQ classrooms. It needs to be noted that this does not imply that the teachers did not show care, exhibit patience, or try to engage their students in the content. However, the classrooms did have less interaction between teachers and their students that was informal or not about discipline. This point will also be discussed in regards to the role of student voices and experiences in the teachers' pedagogy in the following chapter.

Knowledge: Divergence from CQ

During the interviews, teachers described the types of knowledge which they sought out about their students. This knowledge tended to be highly specific about students in their classrooms and differed considerably from CQ's conceptualizations of Knowledge and its sub-dimensions of leadership and business practices, values and norms, and also sociolinguistic impacts on behaviors and thinking. Teachers in the high-CQ group did possess more knowledge about cultural groups and behaviors which did form part of the backdrop of their understanding of the students in their classrooms. However, this broader cultural knowledge was pushed often to the background in favor of more robust and complex webs of knowledge, often gleaned or offered by the students' themselves. This robust combination of different types of knowledge was not present to such a degree or at all in the other CQ teacher groups.

Knowledge about individual students. High-CQ group teachers sought out highly specific knowledge about students which was then utilized in the service of overcoming obstacles to learning or to advance a relationship and build social capital. Teachers sought out information about interests, family celebrations, family members, activities and then used these to build connections by attending events, and in side conversations. Knowledge about student cultural

heritage, such as shamanism or why certain students would not speak in front of their peers, was used to establish connections with students or to inform their classroom expectations such as how to flexibly handle absences or homework. While this is more aligned with CQ Knowledge, what is notable in the case of the teachers is how they sought out the information. The teachers often used the students themselves to help inform their repertoire or knowledge bank of student home lives. PM described how these teachers utilize these relationships to monitor student well-being and learning:

> Yeah, getting to know students, I mean it's just different ways that you ask them things. It's saying, "What's your mom's name? Who do you stay with? Where do you stay? What do you do after school? What are your responsibilities after school?" Just questions, and it doesn't have to be anything super in detail, but when a red flag comes up, then it's time to have maybe a private conversation about something and just let them know that you're here for this and that and see how things progress. If it's something that's not getting better, then start to pull other adults in (interview, October 25, 2015).

These high-CQ teachers explained that they gathered information from students about their interests and home lives in order to navigate obstacles to learning, and create classroom communities.

Teachers valued knowledge about cultural groups, but at the high-CQ level were wary about the potential to stereotype or generalize students, an aspect that could be potentially linked to their awareness of selves and others. Potentially connected to their wariness of stereotypes, teachers in the high-CQ group understood that students might fit within certain groups but they also understood that students might fit into several or that groups were fluid, similar to the teachers' responses about CQ Strategy's sub-dimension of Awareness as illustrated by LS:

> Just learning more about what they are as individuals, and maybe some of their, like what they like to do at home with their families, versus putting a stereotype of, this particular culture likes to do these particular things (LS interview, October 26, 2015).

LS described how teachers maintained flexible categories and understanding about students, relying upon students to inform and expand the teacher's knowledge on their own terms rather than fixing static categories or generalizations on students. This sentiment from the high-CQ teachers can potentially be seen as similar to their awareness of their limited individual perspectives, interest in learning about culture, and their drive to challenge their preconceived ideas.

While teachers sought out and did know a lot specific cultural groups, for example a high-CQ group teacher learning about tensions between the Hmong and African-American communities, the knowledge was not static. What emerged instead were detailed maps of individual students and rich dynamic cultural knowledge drawn from the students themselves instead of generalizations about cultural groups gleaned from outside sources. Few teachers in the high-CQ group described professional development as a significant contributor to their knowledge of students and only two teachers discussed in their interviews being an avid readers of sociology or books on culture and teaching, and two others described training outside of their daily teaching practice; however, each high-CQ teacher did expressed rich knowledge of their students' lives in their interviews and observations and used this information to establish trusting relationships in their classrooms. Information was gathered through informal conversations with students and class assignments like journals. These types of practices were not present in the other CQ teacher groups.

Medium-CQ teacher group. Most of the teachers in the medium-CQ group also possessed significant information about student home lives, in particular the obstacles that students experience such as food and shelter insecurity, transportation challenges, lack of

materials, and a lack of access to technology. BD's description of the obstacles faced by students illustrates the deep and detailed knowledge held by teachers in the medium-CQ group:

> Dealing with my peers has been a challenge. They come from their paradigm of, "Why aren't the parents helping them out at home? Why don't they do their schoolwork?" Realistically, it comes down to Maslow's Hierarchy of Needs. If I don't feel safe, if I'm hungry, if I'm terrified, science is not that big of a deal for me. If I'm moving into my fifth place inside of three months and I don't know where my clothes are and I don't know where my next meal is, things become very real (interview, October 23, 2015).

As a teacher, BD worked with students similar to the population in the school and was familiar with their lives. In the classroom I observed, BD began class each day with one student by playing a paper and pencil dot game in which players drew lines between dots arranged on a grid to create boxes and seize area on the paper. The game served partially as a calming transition for the student but also provided a time for BD to ask questions about the student's home life and well-being. The knowledge gained through the game allowed BD to assess the student's readiness to learn, academic and self-regulatory progress, and issues that might cause interference with the student's focus.

Not all of the teachers in the medium-CQ group had the same depth of knowledge and experience as BD but teachers in this group described the difficulties that students experience outside of school and sought to create more meaningful lessons. However, teachers in the medium-CQ group were less certain about how to connect the lessons to their students' experiences and challenges. MM reflects how the teachers in the medium-CQ group use questions to gather information about their students and the uncertainty in what to do with the information:

> Part of me goes, "I treat everybody the same. Everybody is the same in my eyes." Part of me says, "They are not the same. They have different life experiences. Their families may have different values." I try to stay aware of that. I think more than anything, instead

> of what I do when I'm interacting with them is what I'm trying to get from them, like do you have some place to do homework at home? Do you have a computer at home? Do you have Internet at home? I'm trying to find more out about them than treating any group of kids differently. I'm just trying to find more about them.
>
> I would say, if you walked into a classroom of mine where it was a hundred percent white or a hundred percent black, you wouldn't see a lot different. I would ask the same questions. I probably work more to understand where they are at and where they are coming from if it's somebody who looks different than me or speaks a different language than me (interview, November 7, 2015).

In the quote above, the interest and awareness is present but how to use the information is still developing. There is also a focus on the obstacles to learning rather than what was seen in the high-CQ groups inquiries into the more complex issues of family and culture and how they may experience school or the perspectives that students bring to the classroom. This is similar to how the medium-CQ group teachers know about the difficulties of low socioeconomic status children or children of color, and they also knew a lot about the interests of individual students, but these two fields did not overlap into the curriculum and utilizing student perspectives in the classroom. The high-CQ teachers appeared to not focus on student obstacles but strove to expand their views to include other aspects of student lives and experiences and then weave these into the curriculum. Similar to the high-CQ teacher group, many of the teachers in the medium-CQ group provided food for their students and expressed that meeting students' basic needs is a vital component of the job of teaching.

Low-CQ teacher group. Only one teacher in the low-CQ group discussed student home lives. MT described the difficult economic circumstances that many of the students face and how it affects their ability to have the necessary materials for class. While teachers in the high- and

medium-CQ groups expressed awareness of student obstacles for learning and described how provided in some cases for the students' basic needs, MT expressed a different sentiment:

> They don't for a second think buying a calculator would be a good investment. I've told them, okay, Christmas is coming up, why don't you guys ask for a calculator? I get laughed at, and that's something I can't I mean I don't know. I think it made me look ridiculous and I don't I mean I can look…I don't always have to be right and I don't have to be the powerful teacher, but I don't want to look ridiculous and so I don't tell them to ask for calculator for Christmas anymore (interview, October 20, 2015).

MT expressed his commitment to the students and the desire for them to succeed but the understanding of students' economic realities and how a calculator might be a lower priority for them. MT's lack of awareness of the student perspective potentially corresponds with the low-CQ groups' responses in CQ Strategy's sub-dimension awareness. The lack of awareness and knowledge about students' home lives did not equate to a lack of involvement. Teachers in the low-CQ group tutored after school, coached sports, attended games, and planned activities. However, these teachers did not describe how they gained or used knowledge about students' lives and interests the way the other high- and medium-CQ groups responded.

Knowledge in service. For the high-CQ teacher group, knowledge was typically used in the service of advancing relationships, building social capital with students, showing care, or helping overcome student obstacles to learning as opposed simply the pragmatics of navigating cultural differences. Teachers described utilizing their knowledge to become allies and build trust, and as such their knowledge was put to social use for the benefit of students. The high-CQ teacher group talked about student food insecurity and providing cereal or granola bars for their students. Teachers in the high-CQ group also talked about flexibility in adapting lessons and grades for students to account for lack of supplies, cultural restrictions on speaking or absences for religious observances. The quote from LS below shows how the teachers in the high-CQ

group understood the challenges that students face and how they incorporate or adapt this knowledge into the dealing with students:

> If a kid, strategically, always doesn't have a pencil, I'll give him five pencils. It's a battle every day for this kid, to borrow me his shoe, or give me his cell phone, to borrow a pencil, and it's clearly not ... Then he just shuts down, so I just give him pencils. If they're working with me after school, and they're working really hard, maybe I'll give them a snack. I have some granola bars or fruit bars (interview, October 26, 2015).

Finally, knowledge of cultural issues typically was more expressed in service of social justice or critical evaluation ends. Teachers took on issues such as racism in complex ways that reflected the knowledge of their students. How the teachers described and enacted this is described in the following chapter on culturally relevant pedagogy.

Medium-CQ teacher group. Teachers in the medium-CQ group possessed significant information about student home lives, in particular the obstacles that students experience as described by HB:

> Here, we see a lot of parents not active in their kids' lives, but it's because they work a second-shift job, and that's what needs to happen in order to keep a roof and food over their head. If a kid comes in and they're off the chain and having a really, really bad day because stuff is going down...a lot of these kids, just getting to concerts is problematic, particularly for the middle school because parents don't have transportation, it'll be a kid who has to stay at home with their siblings while their parent is at work, things like that (interview, December 16, 2015).

Similarly, many of the teachers at this level expressed the importance of meeting students' basic needs as a vital component of the job. This focus on basic needs was not different than how the high-CQ group teachers discussed providing food for students, and some teachers did provide food for their students as well. However, what was different is that the high-CQ teachers

appeared not to focus on student obstacles but strove to expand their views to include other aspects of student lives and experiences and then weave these into the curriculum. Similar to what teachers in the medium-CQ group stated earlier, two teachers were aware of the difficulties that students experience outside of school and sought to create more meaningful lessons but were less certain as to what to do.

Low-CQ teacher group. A single teacher in the low-CQ group discussed how their knowledge of students affected their teaching. In their math class, MT described how they created flexible activities to allow students to keep up with the classwork if they were gone for extended periods of time:

> Really, that comes back to the part of the culture of the school where if a kid is gone a lot, or if they move in, which happens a lot, they can get caught up because I've got everything printed out. Here's the curriculum on paper. It's not quite a packet-based curriculum but it's like where they don't need to be in class to learn the concepts (interview, October 20, 2015).

At the same time, as discussed earlier, this same teacher struggled with the lack of calculators and materials among students as seen in this same interview:

> It'd be hard to put each of my kids into a name-the-culture, but that seems to be a common thread amongst the kids who ... If they already have a calculator, that's one group, but the ones who don't just think they're actually given to them or they shouldn't have to invest their own resources into a calculator (interview, October 20, 2015).

While the teacher provided pencils to students for collateral like shoes or cell phones, the potential struggles of students to have the materials were yet potentially outside of their comprehension. Similarly, the teacher adapted to student absences but, as mentioned in the section on adapting language and behavior, struggled with how language ability could affect student learning in their class. Taken in whole, the inability to understand the cultural dimensions

of interactions and student experiences in school could be potentially described as "intercultural myopia." The comprehension that the students could experience rules, words, or content differently than the teacher is not intended to be malicious but the teacher cannot see that these are issues in the classroom that affect students.

Emergent Themes

Several additional themes emerged from the interview and observational data during the study and data analysis that did not fit into the CQ dimensions or sub-dimensions. These themes instead contribute to the unique practices of teachers, in particular their work with students and the complex role of culture in teaching and learning. During the interviews high-CQ teachers described how they utilized student interests, experiences, and perspectives to create respectful learning communities, meaningful lessons, and engage their students in critical evaluation of sociocultural issues. During the observations, I watched teachers learn alongside their students and connect classroom learning to their students' lives and experiences. Similar to findings in the previous sections of this chapter, the medium-CQ teachers were more varied both in their interview responses and in their observed practices. Overall, the medium-CQ teachers' engagement with students' experiences and meaning tended to remain more superficial or focused on commonalities rather than delving into the complex terrain of students' lives and interests or sociocultural issues. Accessing student knowledge or experiences, sociocultural learning, the role of student voices, and learning alongside their students did not emerge in the low-CQ teachers' interviews and observations. These themes are addressed in greater depth in the following chapter on culturally relevant practices across CQ teacher groups, as they coincided with Ladson-Billings' (1995; 2009) conceptualization of culturally relevant pedagogy.

Authenticity or "being real." Within CQ Action, an additional theme of authenticity or "being real" emerged which appeared to support the informal and formal verbal and non-verbal teacher behaviors. All teachers in the high- and medium-CQ groups demonstrated interest in their

students' lives beyond the classroom, inquiring about their activities, families, and music and other media interests. As described in the CQ Action section earlier in this chapter, teachers used their verbal and non-verbal behaviors to signal to students that they were engaging in informal non-instructive conversations in order to develop rapport and social capital. These relationship building behaviors did not necessarily fit within CQ Action's description of altering verbal and non-verbal behaviors or speech acts but were instead individual to each teacher. Instead of code switching or adopting the behaviors of the students, outside of occasional use of student slang or references to popular music, most teachers instead shared stories about themselves or experiences in school and inquired about student interests and lives outside of school.

High- CQ teacher group. For high-CQ teachers, informal questioning and sharing was part of the relationship building needed to facilitate learning later in the course. Additionally, the vulnerability shown by teachers as they shared of stories about themselves was understood as a way to break down the formality of the classroom, to establish more equitable classroom relationships, and for students to see their teachers as "real" rather than a static entity as described by AW:

> I do a survey at the beginning of the year, where they get to tell me about themselves and their feelings about school and they also have the opportunity to ask me questions. I find that if I am open and share with them, they're more likely to share with me. They kind of need to know me as a real person (interview, October 26, 2015).

When probed about this informal questioning behavior rather than adopting the behaviors of their students, high-CQ teachers linked it to their awareness of their own positionality and an acknowledgement of the differences between their experiences and their students. To these teachers, pretending that they fully understood and could relate to student experiences was disingenuous or naïve and that their students would reject it. The individual manner in which the

teachers engaged their students can be seen as an extension of their nuanced awareness of their own limited perspective and receptivity or openness to student experiences and meaning.

HD described their multilayered approach to developing student relationships in which they learned about students though informal questions and conversations and how they utilized the relationships to leverage learning:

> If I can work on building that relationship…[then] I can also get to a place where I can explain where I'm coming from, and I want to hear where they're coming from too. There's a mutual respect we're all equal players in this space (interview, October 12, 2015).

In this example, HD explains how they established equitable relationships within the classroom, and also how they used the relationship as the foundation to reach students and engage them in learning even when there is resistance or challenging circumstances. The relationship and trust, as described by many of the high-CQ teachers, was the means in which to affect changes in the classroom and facilitate learning. Teachers' authenticity, rather than their ability to match the behaviors and speech of their students, is linked to the complex act of building trusting relationships with their students.

Medium-CQ teacher group. Similarly, teachers in the medium-CQ group understood the differences between many of their lives and their students' experiences. Teachers in the medium-CQ group understood as well the need to be authentic in their comportment and interactions with students, and that trying to co-opt or mirror the speech and behaviors of the students would not be received well. HB described this understanding in their interview:

> I'm not pretending to be urban, I have become urban. I know when I slip into the dialect, it's not me imitating a movie. It's a language that I learned to speak and speak authentically. There's a fluency there that only comes through time… I think the one thing that urban kids will despise or push against harder than almost anything else is

> someone who's not real. There has to be an authenticity there (interview, December 16, 2015).

Like in the quote from HB, teachers in the medium-CQ group articulated an awareness of the differences in their experiences from that of their students and the potential danger is trying to portray themselves as knowledgeable or able to relate deeply with the lives of their students. Instead, teachers inquired about students' interests and shared stories about themselves similar to the high-CQ group teachers. However, the types of information sought by the medium-CQ teachers tended to focus more on superficial issues and areas of commonality rather than exploring the differences individuals brought to the classroom.

Low-CQ teacher group. The theme of authenticity did not emerge in the low-CQ group interviews or observations. As described earlier in this chapter, there were fewer observed instances of informal rapport building in the low-CQ teachers' classrooms.

Summary

The CQ dimensions of Drive and Strategy, and the respective sub-dimensions of Intrinsic Interest and Awareness, appeared to present a means to understand how teachers conceptualized their work with students, including teacher beliefs and their motivations for working in schools with culturally diverse student populations. Additionally, there appeared to be clear differences in the manner in which teachers approached their work with students between CQ groups. As a construct and assessment measure, CQ provides a means to develop the undergirding capabilities needed to enact culturally relevant practices. While CQ Action and Strategy may provide a window into understanding teachers' conceptualizations of their students and practices, CQ Action and Knowledge did appear to capture teachers' knowledge of students and the how they behaved in the classroom. Instead, relationships developed through informal interactions and highly individualized approaches appeared more often than the ability to alter non-verbal and verbal behaviors. This may suggest that the ability for teachers to develop teacher student

relationships (TSRs) may be more advantageous than learning behavior or speech patterns alone. Similarly, while some high-CQ teachers did possess static cultural knowledge, most teachers developed sophisticated and dynamic webs of knowledge about their individual students that sometimes included cultural elements but remained more flexible and fluid. While CQ does not perfectly explain all the beliefs, perspectives, and behaviors of teachers, the fit with teachers' motivations and awareness may potentially indicate CQ's utility in education. However, revisions to the construct and its assessment measures will be needed to more fully capture teachers' experiences and behaviors in the classroom. An additional compelling set of finding is discussed in the next chapter and entails the potential alignment between CQ's ability to assess the intercultural capabilities and how these capabilities manifest in culturally relevant pedagogical practices.

Chapter 6

Culturally Relevant Pedagogical Beliefs and Practices Across the CQ Teacher Groups

Introduction

The class is softly lit with a floor lamp, two torchieres, and a desk lamp. A whiteboard covers the front of the room and a digital whiteboard is placed in the middle of it. The teacher uses the digital whiteboard to display the learning targets and agenda for the day. Next to the digital whiteboard the teacher has a calendar for the classes. A college pennant and small bulletin board of pictures of their department and thank you notes sits next to the corner and in front of teacher's desk. The side of the classroom wall is painted blue with hand prints in red, green, yellow, orange and blue. The wall also contains classroom expectation posters, level of voice chart (appropriate volume levels for group work, teacher talk, and independent work). The remainder of the wall has student posters on the works they are reading—these curl around to the back wall. On the back wall there are two large bulletin boards boarded by paper Kente cloth. English terms, suffixes and prefixes are posted on these. A large whiteboard covers the rest of the wall. On this whiteboard is a spot for what the kids have learned and their questions and misunderstandings. On the other side wall is a large bulletin board—this one is ringed again by Kente cloth paper border. Photos of mostly African-American athletes and artists line the bottom border with quotes interspersed throughout the pictures. Big paper posters of what students will learn and unit questions take up half the board closest to the door.

The teacher has been out sick for a couple of days with a sinus infection and is clearly feeling exhausted and uncomfortable today. Despite feeling lousy they still greet their students at the door with warmth and enthusiasm. Once the bell tones, the class quickly settles and the teacher begins the class with a recording of the book the students are reading for class, *Their Eyes Were Watching God* read by the author Zora Neale Hurston. Before class begins, a student asked if one of the characters, Mrs. Turner is white. The teacher says no but the character is very light

skinned and then explains some the tensions in the novel and the time period. This question is taken up again in the day's lesson. The teacher pauses the recording and engages the kids about the light skinned character Mrs. Turner in the passage that was just read. The teacher talks about beauty standards for African-American women at the time, specifically looking like white people. She presses why that would be the standard— and the students respond "to get an in," passing and gaining privilege.

The discussion transitions to how two women in the novel, both African-American, could have such different attitudes about blackness. The students respond about individuals possessing multiple truths, cultural worlds in collision, and the standards of different communities. The teacher pushes them to think about connections to their lives stating that there are still tensions within African-American culture. A young man addresses this by referencing himself and his own experience. The teacher affirms the student's response and then opens up the point about representations of masculinity and how the student's appearance might help or hinder him within the community. This prompts a flurry of responses from students eager to share their experiences and insights about crossing into different communities. One student comments about the discussion itself, stating that this is a difficult and sensitive subject since people will look at you differently based on your appearance and how you may represent an idea of a stereotype, the narratives that people possess around appearance and the multiple ways of being human. The teacher closes the discussion with comments about their own experience as a student as one of only a few students of color and how their own experiences matched their peers and others' conceptions of her identity (classroom observation, December 3, 2015).

The teacher in the above vignette is young and only in their second year of teaching; however, they demonstrate some remarkable teaching practices, especially in terms of student voices and critical inquiry. The young teacher scored in the highest quartiles in the CQ dimensions of Drive and Strategy, and in the middle two quartiles for CQ Knowledge and Action.

In their interview, the teacher expressed a deep commitment to teaching and equity education, and exceptional personal drive to work with the culturally diverse populations of the school. The teacher referred to their own experiences in K-12 schooling, both in how they were similar and different from their current students, and how they hoped to change the experiences and outcomes for these students. Similarly, the young teacher in their interview and in observation follow-ups also expressed a sophisticated and nuanced awareness of their students' and their own perspectives and how these impacted the classroom.

What the classroom example above illustrates is how high-CQ teachers typically enacted classroom practices closely aligned with those conceptualized in culturally relevant pedagogy more consistently than their medium- and low-CQ colleagues. In the example above, this young teacher maintained equitable relationships with the students by creating a respectful classroom environment where students could share their experiences, be vulnerable with each other, and explore issues that were relevant to students' lives. The students' voices are central to the learning in this example as the teacher invited students to inquire and make meaning out of the text, extract relevance from the students' own lives, and explore a complex facet of race.

In the previous chapter concerning CQ, the interviews and observations provided vital insights about the teachers' motivations and awareness of themselves and others, how they sought out knowledge about their students, and how they developed social capital to leverage learning opportunities. This next chapter unpacks the second set of themes that emerged during the study's exploration of teachers' conceptualizations of their pedagogical practices and navigating cultural differences. The themes that emerged aligned with categories in culturally relevant pedagogy: (1) equitable relationships; (2) making meaning; and (3) critical evaluation. How teachers understood and enacted their practices are presented below by teacher CQ groups in order to display the similarities and differences in how these different groups of teachers taught their culturally diverse students.

Equitable Relationships

The teachers in the high-CQ group created respectful classroom communities, addressed student interests, and shared in the learning process with students. Teachers in this CQ group were more comfortable with not knowing the answers and relying on students to help build knowledge within the classrooms. As such, the behaviors observed in this theme also bled over into how teachers made meaning with their students as the teachers in the high-CQ group drew knowledge out of students and helped students create meaning out of the lessons, with teachers serving as facilitators in their students' knowledge development. Within the theme of equitable relationships, high-CQ teachers' work extended the deliberate building of teacher-student relationships in the classroom and can be seen, along with the theme of making meaning, as the enactment of the how teachers further built upon the relationships with students to create engaging and respectful learning communities. The themes of equitable relationships, making meaning, and critical evaluation are the enactment of pedagogy with these teacher student relationships (TSRs) as the foundation. Teachers in the high-CQ group also made deliberate efforts to build respectful classroom communities. These teachers tapped into student interests to create lessons and allow students to direct learning.

Like the high-CQ teachers, teachers in the medium-CQ group talked about respecting their students and building classroom communities. However, what was different in this group is that the knowledge is coming from the teachers as the expert, whereas in the high-CQ group, students were imbued with a role as legitimate sources of knowledge, a behavior more closely related to the enactment of culturally relevant pedagogy. Similar to the findings for the medium-CQ teachers' practices in making meaning discussed in the next section, much of the activity in the classroom was teacher directed. Student interest was not as present in these teachers' classrooms as in the high-CQ teachers. Student voices and experiences played a smaller role in the classroom activities. Unlike the high-CQ teachers, fewer efforts at building community (with

the exception of one teacher who talked about group responsibility frequently) were observed. However, teachers did take steps to ensure that the environments were safe for learners and were respectful. While these teachers did not address equitable relationships as conceptualized by Ladson-Billings' culturally relevant pedagogy (1995; 2009), they did create safe spaces for students, welcoming environments, and held their students to high expectations. Like in other areas of CQ, teachers at this level can be viewed as developing in their practice.

Teachers in the low-CQ group did not discuss their practices for creating respectful classroom communities nor how they engaged student interest. For both medium- and low-CQ groups, the instruction was typically teacher directed. In terms of discipline and respect, while both high- and medium-CQ teachers engaged in respectful dialogues and discipline with students, in the low-CQ classrooms discipline and student conflicts were more public. Within these low-CQ classrooms, there were few observed attempts to build community as a class.

Beyond the general characteristics of teachers' beliefs, perspectives, and actions regarding equitable relationships, several sub-themes emerged from the data to offer additional insight into the practices across teacher groups. In each of the sub-themes of community and student interest, teachers' conceptualizations from the interviews are addressed initially as a foundation of manifested classroom practices. Descriptions and examples of the practices follow each teacher group's conceptualizations of the theme. Data for each teacher group are grouped together to display a complete picture of the theme and to facilitate comparison across groups.

High-CQ teacher group interview responses: Community. Teachers in the high-CQ group described in the interviews how they deliberately created communities with expectations of shared learning, respect between all members of the class including the teacher, and shared power in directing learning. PM described the approach to community building which included elements of high academic expectations, and respect for individuals but also the learning stance that the teachers embodied:

> I guess I have high expectations for all of my students. I guess characterizing work between myself and students that are different from me, it's a learning process. I'm learning from them, they're learning from me, and we're building a relationship where we're comfortable talking to each other pretty honestly and frankly. I guess that's where I go (interview, October 25, 2015).

Within this response, the teacher situates the relationship and trust needed for both teacher and students to learn from each other as a necessary preliminary element. In order to develop this trusting relationship, PM described how they and other high-CQ group teachers gathered information from students about their interests and home lives. For example, they might explore such as who students stay with or their home responsibilities in order to navigate obstacles to learning and show interest in order to generate social capital for creating supportive classroom communities. PM described how these high-CQ teachers utilize these relationships to monitor student well-being and learning, and access additional resource personnel when students encounter difficulties and need extra support. Learning also included for PM, and for teachers across the high-CQ group, flexibility in understanding the circumstances of each individual in the class and a flexibility in policy to meet the circumstances.

High-CQ teachers also described how they use both inclusive language and include their students in creating shared classroom agreements as illustrated by UM:

> I really like that we're a team. I call them "team." We create shared agreements, and I tell them that they're all teachers. To them, it sounds really cheesy, and they're like, "[UM] but it's like … but they see … I think in certain conversations as we progress, they see that that's actually true. We are a team. Like if we're not working well together, then it's not working for any of us (interview, October 9, 2015).

This team or community mindset extended to teachers' behaviors as I observed teachers in the high-CQ group deliberately and actively foster respectful learning communities in their

classroom. In the classes I observed I witnessed all of the high-CQ teachers encourage and coach students on respectful classroom discourse, develop shared responsibilities for the classroom and learning tasks, engage with students on problem-solving, and frequently use inclusive language when talking about the classroom population.

High-CQ teacher group manifested practices. The shared responsibility also was enacted by the high-CQ teachers as they worked collaboratively with their students to solve classroom problems. In an illustration of this dynamic relationship between teachers and students, when Sharpie markers started to disappear I teacher AW's classroom. The teacher, AW, proposed a student job since they are always busy helping other students and they do not want to limit the time they are available to the class: "I would like someone else to step up and take on this job. I'll give you a shout out." The shout outs are a form of classroom recognition in which student names are written down and placed in a jar when they do good work. Student names are drawn from a jar throughout the term for snacks that the students selected and the teacher purchased, a practice also utilized by several other high-CQ teachers. A student, a young man named Treyvon, volunteers immediately. AW has a few preliminary suggestions for the student's idea and writes these on the projection screen.

The teacher then seeks feedback from students for ideas about collateral, penalties for lost Sharpies, good time to ask for and give back Sharpies. As the discussion progresses the teacher asks students about why she did this: "Why do you think I am involving you?" A student responds that "You are a teacher who likes to involve us rather than just tell us what to do." AW replies back "Doesn't it help to have a rule that you understand?" AW suggests a student will be the keeper of the collateral, but the student instead proposes a sign out system which the students like better. "You are helping me with this. How about you trade a writing utensil and Treyvon writes your name down?" The students and teacher work out the final parameters, including a penalty for not returning a Sharpie and when would be the best time to check-out and return the

markers. The student monitor creates a sign out table and shows it to the AW before they even ask him to do it (observation, November 17, 2015). In this example, the teacher trusted and engaged the students to devise a solution to a classroom problem. The students in this example were partners in the community, respected and empowered to take responsibility for their shared space.

Medium-CQ teacher group interview responses: Community. Like the high-CQ teacher group, the medium-CQ teacher group expressed the respect they showed their students and how they build classroom communities, with the two often intertwined. Respect for the medium CQ teachers included fairness and transparency in discipline and verbal respect in interactions with students. In their interviews, a few the medium-CQ teachers discussed how they build community within their classroom. In most of these cases, the teachers discussed creating safe spaces that students would feel comfortable sharing about themselves. In these cases, the medium-CQ teachers often discussed using themselves as examples, even demonstrating vulnerability by sharing information about their own struggles in schools or experiences as students as illustrated by the quote from SC: "I'll talk about how I have ADD and really just expose myself for them. I try to really create a culture that things are safe. We talk about confidentiality, everything's going to be safe here" (interview, October 26, 2015). One teacher in the medium-CQ group, however, was explicit in their messaging to their students about the importance of community:

> I tell my kids. I said every day, I say, "Guys, it's not about you. It's about who? It's about us." I say, "Hey, I know it may not sound correct to say this, but we will all get further if we go together. If we go as individuals, you will not succeed." I just tell them that… I'm just trying to re-program that idea of it's us, it's a community. You need to take your peer, their success and failures, as your own (AC interview, October 20, 2015).

While AC's message is explicit, in practice the community extended only to the students. As in the case of most of the medium-CQ teachers, the instruction was top-down or teacher directed. Community was an important aspect of the medium-CQ teachers' teaching, however the approaches teachers used as well as their frequency were more varied, unlike their high-CQ peers.

Medium-CQ teacher group manifested practices. In the classrooms, medium-CQ teachers enacted different levels of community building. Some teachers, such as TF and BD, used classroom space to recognize and celebrate students for their achievements or positive behaviors. Most of the medium-CQ teachers inquired about their students' lives as an opening dialogue in class periods. Again, as in the interviews, only three teachers openly discussed classroom communities, specifically how students needed to work together as a community. One of the teachers, HB, referenced individual effort to group performance in choral music, while AC and BD linked community to helping each individual achieve more and students' responsibility to each other:

> In the beginning of the year I talked about getting further ahead when we work together…. I talked about the power of 100%.... Ask yourself if everyone in your community was part of that 100%. If not, you need to ask them "hey, man—what's going on" (AC observation, October 29, 2015).

While AC pushes his students to think about their collective responsibility to each other, as their teacher they are separate from this and ultimately in control of it. In a way, this can be interpreted that the more rigid boundaries between teacher and student is still played out.

In medium-CQ teacher classrooms, there were fewer opportunities for students to learn from each other or to create knowledge as a community. In two classrooms, the choir class of HB and MM's math class, while students did collaborate as a group to learn, the learning experience is qualitatively different than in the high-CQ group as well also be seen in the next section on making meaning. For example, in MM's math class, the students share their answers to daily

homework problems by writing them on the classroom's whiteboards and windows. If there is a disagreement in the answers, MM has the students work through their problems with the class critiquing each students' work. The environment is safe and students take risks in their answers and make mistakes without fear. When students make errors, the teacher indicates where the error occurred and then comments that the type of error is common and easy to make, adding that even as the teacher still make them. They then allow the students to fix their work and mistakes are viewed as a part of the learning and are without issue (observation, December 11, 2015). While students share their work with each other, the learning is still teacher directed and the knowledge is about solving a problem devoid of context, connection to student lives or sociocultural content. However, while the medium-CQ teachers do create environments that are safe and respectful, the same collaborative problems solving, shared learning and inclusive language are not as prevalent as compared with the high-CQ teacher group classrooms. Similarly absent are the opportunities for student voice and making meaning.

Low-CQ teacher group interview responses: Community. Teachers in the low-CQ group did not discuss the role of classroom community of shared learning between students and teachers in their interviews. Only one teacher responded about classroom environment and how they handle student errors in learning "[anytime] you need to be educated, it means you're either doing it wrong or you don't know how to do it and so I try to approach that with sensitivity because I'm basically telling them that they're wrong" (MT, interview October 20, 2015). MT is conscious that the students may react to being corrected, however, it can also be interpreted that in the class, the teacher has the answers and is in control of the learning. In the classroom observations this interpretation appeared to be corroborated as instruction frequently was a top-down or instructor led with few opportunities for students to learn from each other or in conjunction with their teacher. ST also expressed their understanding of the role of the teacher as the gatekeeper or possessor of knowledge in a similar fashion:

> To me it's like they just need my attention constantly. Either to be the police to catch them doing something, like that's what they want me to do. Or they just need my attention because they want to socialize with me. Or they have so many questions that they could maybe answer themselves if they followed those directions. I mean it could be a lot of different parts of that neediness. I feel like I'm getting pulled a lot in just trying to answer okay you want attention from me I can't give you that attention. You need more challenge I can't give you that right now. But you need my help on this I can give you that. So it's unfortunately for me making this choice of who am I paying attention to right now and the other kids need that attention too (ST interview, November 4, 2015).

In the example from ST, the teacher expressed their feelings of being overwhelmed by student demands. However, the example also shows how the teaching tasks are separate from the informal social capital development described by the other teachers. MT describes noticing when students are struggling and then using what they know about student accomplishments in other areas to encourage them:

> I list the things that they are good that. Maybe there's a subject or a sport or maybe an area in math, one particular topic that they're good at. I said, you can do this because you focused, and then, I just need you to focus over here on the new topic (interview, October 20, 2015).

In one instance to encourage a student's engagement in the class, MT referenced seeing the student play soccer and stated to the class how well the student played. However, the commentary on the student's soccer effort and ability was then compared by the teacher to the student's lack of effort and performance in class (observation, December 7, 2015). The teacher is typically friendly with students but this was the only instance over the course of 10 observations in which I saw the teacher address student interest in order to engage them in the learning.

Low-CQ teacher group manifested practices. In the low-CQ teacher group classes, attempts to build relationships with students, inclusive language, or community problem solving were not present in the same way as the other teacher groups' classrooms similar to MT's example above. In one instance similar to AW's Sharpie problem, HP took issue with their English class students' handling of classroom markers and colored pencils. Instead of collaborative undertaking or asking the students for solutions they scolded the students about cleaning up the marker and colored pencil boxes. The teacher tells the students that they have purchased these with the teacher's own money and the students did not do a good job in putting things in the right places. I watch the clock and the scold goes on for about five minutes, as the teacher continued to tell the students that these are the teacher's materials paid with their money stating that "my stuff is getting ruined and I don't want to have to go out and buy more for you to use." The teacher also tells the students "it makes my life harder and I don't want to make my life harder" since they are grading and they don't have time to take on extra work (observation, December 17, 2015). Unlike the other two CQ teacher groups, discipline and conflicts with students were handled publicly in the low-CQ group's classrooms. In two of the teachers' classrooms, students were admonished for disruptive behavior or for not paying attention both individually and as a class as a whole. While the public discipline instances were primarily concentrated within a single teachers' classroom and may potentially reflect the limitations of a single teacher or a difficult class, the lack of warmth and community was a distinct difference between the low-CQ teachers' classrooms and their peers.

High-CQ teacher group interview responses: Student interest. Teachers in the high-CQ group also accessed student interest by finding ways to connect student experiences, questions, learning styles, or culture into their courses. Sometimes the student interests intersected with critical evaluation of sociocultural issues while other times it encompassed

music, youth culture or sports. HD described how high-CQ group teachers seek to provide content and engage issues that connected with student interest and student lives:

> I don't want to be in a place where you're going to tell me what I cannot teach. Not that I have, this agenda, but if a student asks a question, let's say we're talking about culturally responsive practices, if we're talking about racism. I don't want to be so wrapped up like, "Well, that would be a thing to look up." I want to be open to having that conversation, and letting kids talk about those things, because it's important. I think it's part of, it's part of this content area of social studies, but it's also part of their education being in a public school setting. I don't think we should, shy away from that, in a place that is diverse, that has a lot of cultural and ethnic diversity. I think there's a lot of opportunity, for those conversations (interview, October 12, 2015).

HD's description of incorporating student interest also shows how the issues included by many of the high-CQ teacher group bleed into the sociocultural interest and how teachers also value the experiences of their students, treating them as possessors of valid knowledge and perspectives. Other teachers included references to how they utilized a student interests as springboards into critical inquiry or how they turned classroom instruction over to students at the end of a unit to explore questions that the students wanted to explore but the class had not addressed, for example re-examining books read in class through a gendered lens.

High-CQ teacher group manifested practices. The high-CQ teacher group addressed student interest through selection of classroom materials, activities and topics that the students found relevant or interesting. At times these materials connected with teachers' efforts to engage students in critical evaluation or inquiry into sociocultural issues such as racial discrimination and tensions between communities such as LG and MS's selection of novels like *Sula* and *Their Eyes Were Watching God*. At other times, teacher efforts to address student interest came in the form of choosing lesson formats that would captivate student interest through inquiry-based labs or

hands-on activities such as debates and fish-bowl discussions in which student voices were foregrounded.

An illustration of how high-CQ teachers addressed student interest is AW's graffiti unit. AW shared with me that they selected graffiti as a unit topic for their art students because of its connections to youth and hip-hop culture. The teacher pointed out that students bring strong opinions about graffiti to class and they are able to leverage this in order to engage them in critical inquiry of who is included and excluded in discussions of art. I observed their class at the end of the unit and observed the teacher and students engage in a discussion about whether graffiti constitutes art or vandalism. Students write before they share and the Teacher checks tables to make sure everyone has a discussion partner. When the class is about to engage in a large group discussion, AW reminds the students about expectations that when they have a full class discussion, "we are listening to each other because we know that I am not the only teacher in the room and that you can learn from each other." The students actively listen and build on each other's points as they engage the gray areas of intent, quality, and legality (observation, November 5, 2015). The teacher in this case demonstrated how high-CQ group teachers leveraged student interest, relationships, respect and community expectations to create a high-level learning experience for their students.

Many times, the categories within equitable relationship practices overlapped with each other blending community and student interest together. In one of LS's science classes, the teacher debriefed a test illustrating how the categories flow together to create a shared learning space with respect for all students and one that incorporates different types of student interests as well. In one of their science classes I observed, the period started in its typical orderly routine as the students worked on iPads to investigate an element puzzle. While the students work, the teacher returned tests. Once the tests are returned and the students have closed the iPads, the teacher discusses the problems that the students had on the test as a large group and lists the areas

where “we are still struggling” such as controls and meter sticks. The teachers walks the students through an example problem on the test which uses The test uses basketball as a reference to illustrate the role of observations, variables, and inferences. The teacher produced a grade sheet for each student’s test but does not have an example one to put up on the projection screen to help explain the grading and interpret the results. A student volunteers their own to share with the class. To show their mastery of the content standards, the teacher provides choices in alternative assessments which the students will get an opportunity to work on in class that day. Before the students get to work, LS posts a list on the digital whiteboard of students that need to work on each topic and then tells them that the “purpose of me making a list is not to bully or degrade anybody.” LS tells them that they will won’t tolerate bullying or teasing and the day’s classwork is about each student gaining mastery. As the students work, the teacher walks around the room checking in on student work and offering assistance. LS plays music over the classroom speakers that the kids like and the students busily get to work. There are some side conversations at tables, but there is only one reminder for a group of girls to get back to work. It is immediately followed by a help comment about a question on one of the mastery worksheets. The redirect was brief and went right to help (observation, November 30, 2015). In this example, the teacher simultaneously models and encourages respectful classroom community practices while tapping into student interest. The students are also trusted and expected to engage independently in their learning and classwork.

Medium-CQ teacher group interview responses: Student interest. In student interest, medium-CQ teachers differed from their colleagues in the high-CQ group. Whereas teachers in the high-CQ group addressed how they investigated and incorporated student interest into the classroom, most medium-CQ teachers did not address this beyond changing examples in texts to match student interests. One teacher however did describe how they leveraged student interest to talk about curricular topics:

> I think the teacher is so burdened down with the day to day work that it's hard very difficult for them to reach out. I think it has to be a blend of listening to your kids and finding out what their hopes and dreams are. You ask any one of my male students and they all want to be NBA stars. That's a great jumping-off point then to working your way back to, "All right, you want to be an NBA star? How do you handle your money? How does a checkbook ... You know what, we should maybe bring in a banker…. Maybe we should bring in someone because you're not going to let someone else handle your money, are you? I wouldn't. Would you? So you've got to kind of try to blend it that way, work it back. We've had kids from [local private university and law school] and stuff, the street law. They've come in and that's really been very good for our kids because they figure out, "This is how the court system works. What are my rights? When do I ask for an attorney? When do I ask for representation?" So those kinds of things, I try to meld those things together (BD interview, October 23, 2015).

However, what BD's example shows is that unlike some of the high-CQ group teachers, students' interest is used to segue into the content that the teachers wish to cover, a more top-down approach rather than the more equitable sharing of control over the learning. The students find the content interesting, but it is the teacher who determines what to explore rather than having the topics come from the students' interests.

Medium-CQ teacher group manifested practices. Teachers in the medium-CQ teacher group typically did not address student interests in their classroom teaching either in incorporating topics and materials that students wanted to explore, nor in content that reflected the students' identities. In the medium-CQ teacher group, the teacher more frequently controlled the content and while they did in some cases adjust names or examples to be more reflective of their students' lives, the topics were determined by the teacher. As seen in the vignette that introduces a study, when students had questions that they wished to have addressed teachers in

the medium-CQ group either addressed them cursorily or chose to ignore them. For example, following the terrorist attacks in Paris, TF's students had many questions about what was happening both in Europe and the Middle East. As the students worked through the pictures of the day activity that opened most classes in TF's classroom, especially the pictures of the Eiffel Tower, student questions and thoughts about terrorism and what happened in Paris were ignored by the teacher in order to get to the next topic (observation, November 17, 2015). Another teacher in the medium-CQ group also illustrates this tendency to overlook student interest as their students explored an example of proactive behaviors taken from Sean Covey's *The Seven Habits of Highly Effective Teens* (2014). The example is drawn from a reporter's successful attempts to get an interview with the Beatles. Not all the students know who the Beatles are nor the significance of the reporter's efforts. The instructor is enthused about the reporter's success but the content is not modified to reflect who the students might be interested in or to draw more contemporary parallels for the students to deepen their understanding (SC observation, November 20, 2015).

Low-CQ teacher group interview responses and manifested practices: Student interest. The low-CQ group teachers did not address student interest in their classrooms. In the interviews, the only one low-CQ teacher responded how they changed names or activities to reflect student experiences. Whereas the high-CQ teachers chose materials and lessons and examples that would interest students or address topics of importance to their students, the low-CQ teachers very seldom linked examples to student experiences beyond these small changes. Classroom discussions of material seldom drew in student experiences and were frequently dominated by the teacher's own knowledge or perspective.

Making Meaning

Teachers in the high-CQ group sought out their students' perspectives and experiences and worked to create learning opportunities to draw this knowledge out and integrate it into their classrooms. Teachers in the high-CQ group viewed their students as co-creators of knowledge and valued the meanings the students assigned to topics and content. Similar to the responses and practices in equitable relations theme, teachers in the medium-CQ group sought to incorporate student voices in lessons. However, these opportunities for student participation more typically focused on factual information and less on the meaning that students made out of the content and classroom experiences. The low-CQ teacher group did not describe how they incorporated student meaning and perspectives into their classrooms. Similarly, their practices with students focused on recitation and correct factual answers when student voices were incorporated into lessons. These underlying beliefs were manifested into practices that coalesced into several teaching practice sub-themes: use of open-ended questions, foregrounding student voices, and building connections to students' lives.

High-CQ teacher group interview responses. High-CQ group teachers described how they set up learning activities or content to access student voice and allow students to interpret content and make meaning. Similar to the high-CQ teachers described in the next sub-section on critical evaluation, these opportunities were often informal and raised outside of the formal curriculum by students. Teachers at this level are more comfortable with not knowing the answers and relied on students to help build knowledge within the classrooms. In this way teachers described how they created knowledge alongside their students as their students interpreted materials and shared experiences to situate the material into their lives. Teachers sought to draw knowledge out of students and help students create meaning out of the lessons and serve as facilitators or developers of knowledge with their students. For example, UM described how

current events and student interest could be a pivot point in a class in order to address student issues and allow them to connect it to the curriculum:

> It just means that maybe you take that minute to talk about Donald Trump when it comes up in class because they care about that, and when they ask why it's important, "Why do we have to learn about historical event? Like why do we have to learn about history?" "Okay. Well, Donald Trump. That's why because he might be a president, and what are we going to do about that?" That's one thing, and then I think also … I think that they need to feel like what we're doing is really helping them like I think they need to see like a benefit, and I'm still learning exactly … this is one thing that I want to focus more on in the coming years, but it's building their ownership of the information, of their information, and about them as a student… (interview, October 9, 2015).

Other teachers shared how they set up learning opportunities for their students to engage with their own experiences, their classmates, and the content as shown in this art example described by TL in which they allowed students to draw comparisons and begin to analyze their experiences in a new country, culture, and school:

> [our] Somali kids or a lot of, you know we have these kids who are, who could tell you about school in another country or have an identity that is outside of the United States. For me in some ways that's a little bit easier because we can study this American culture thing or discuss it with the perspective of, from the perspective of an outsider. One thing I can ... I've taught to some of my upper level students, like whole units that basically boil down to pragmatics, which is word choice and word tone and how do we express things differently in different situations and to different people. We can bring ... It's easier for me to do by saying, "How is that different from this?" We have all these other perspectives to bring in (interview, October 27, 2015).

What can be seen in the example above is the learning stance that many of the high-CQ teachers displayed in accessing student experiences. In the high CQ group, teachers described enthusiasm in "letting kids talk about their learning and giving them space to do that" (HD interview, October 12, 2015).

High-CQ teacher group manifested practices. In the classes I observed, the high-CQ teachers' beliefs manifested in open-ended questions and attempts to connect the curriculum and lesson to student lives and interests. Teachers in the high-CQ group sought out student experiences and invited students to be co-creators of knowledge. In the high CQ teacher group, student voices were sought out, engaged and utilized within the community of the classroom as a central component of learning. In some ways the making of meaning is connected or related to teachers establishing a community in their classrooms where students are safe to express their selves and also learn alongside their teachers. Additionally, examples from this category overlap with the critical evaluation theme as teachers' questions often about sociocultural topics. What is important to see in the following examples, though, is how teachers used questioning strategies to engage students in learning without telling or banking information, preferring instead to draw knowledge out of their students.

Open-ended questions. Teachers in the high-CQ group often utilized open-ended questions to engage students and draw them into class activities. The goal of these types of questions aligned with the high-CQ group teachers' approach to lessons which strove to get students to engage, be critical, engage in higher-level thinking, and make meaning out of the lessons. Teachers typically sought out information from students and then asked them to connect to their experiences, current issues, and school. All teachers across the high-CQ group used open-ended questions frequently in their classes.

An illustration of this technique that typifies the approach is drawn from PM's use of CNN Student News and current events weekly in their lessons. On one of the days I observed,

PM wrote five items on a portable whiteboard before class began: Egypt, Syria, drones, climate change, bone grafts. The students view CNN Student News, take notes and then share with a table partner what they felt were the most significant points in the broadcast. PM circulates to different groups and asks probing questions to guide students in the development of points. Sometimes, the feedback is directive and seeking specific important details or for students to develop or elaborate on points, but most of the time the teacher asks questions that are more open-ended, for example, in reference to a proposed policy to register drones in the United States— "why would they do this?" During the large group debrief if students struggle with answers, PM prompts the rest of the class and seeks more information "let's have a little more about that." The teacher constantly asks questions that elicit student views such as "do you think that is possible?" or "why is this important" or "explain to me why you think he can or you think he can't" in reference to President Obama's plan for Syria (observation, November 2, 2015).

When I talked with PM after class, they expressed that they design the current events lessons in with the big themes in place but allows the student interests and questions to determine the course of the discussion with an overall goal of getting students to practice thinking and developing details to support ideas. In this way, the teacher both taps into student interest and develops their critical thinking, and also engages the students to make personal meaning out of the events. Later that month, in the wake of the Paris terror attacks, the teacher asked students to consider the anti-Muslim and anti-immigrant backlash and how that might affect their community. Students in this case drew on how the fear of Ebola affected their community the previous year (observation, November 17, 2015). Additionally, the teacher also expressed that that they keep a mental list of students who participate and makes an effort to hear every student's voice at least once in a class period.

Similarly, teachers used these types of questions to push students thinking, address their potential biases, and develop awareness of their self. An introductory lesson on Anishinabe

history and culture in HD's classroom illustrates how the high-CQ group teachers used their questioning strategies to develop this awareness in their students. After student-designed skits on the migration story of the Anishinabe to present day Minnesota, HD asked the students about how people know, what they consider reliable sources of knowledge, and expounded on within and between group differences. The teacher then asks the students, based on what they know about the Anishinabe, "what are some ways that Anishinabe culture may be different than your own?" Students reply with answers like how dreams are considered reliable sources of knowledge. HD follows with how Anishinabe culture may be similar to their culture (observation, October 22, 2015). This example illustrates how the high-CQ teachers used open-ended questions and also asked students to turn a reflective gaze inward to consider how people may hold different beliefs, play different roles or take different actions. When I followed-up with the teacher, HD stated that some of the elements of pieces about the Anishinabe are written in the standards but it was his interest in getting students to think about culture and how groups may be similar or different that drove the lesson. In this lesson, the teacher is doing extra which may be a reflection of their interest in the cultural aspects of social studies, and the teacher's deeply held belief that intercultural understanding and awareness of the different student perspectives in their classroom is important.

Student voices. In the high-CQ teacher group, the teacher voice was frequently in the background in relation to student voices. Teachers facilitated learning, especially through questions, rather than dictating learning in lectures or hunting for answers through recitation or closed-ended questions. Some of this was enacted through simple questioning like in the use of open-ended questions or follow-ups, seen in the earlier section, where students were asked to support their thinking. However, high-CQ group teachers utilized student voices to help the students make meaning out the material and expand the range of perspectives in the classroom, acting as a type of fulcrum of student experience upon which the class swung. To illustrate, in

one of LG's discussions on the novel *Sula,* the teacher asked the students about the experiences of the mixed-race and light skinned characters in the book. LG shared their own experience teaching in Tennessee and how they had to learn about the differences in skin tone within the African-American community—listing the many gradations. A self-identified mixed race student chimes in with his own experience and adds more categories to the list. Other mixed race students talk about how it is not easy to be mixed and the problems of not belonging to a particular community.

The discussion covered a lot of issues from laws and the history of segregation, to differences in values between communities and even standards of beauty. Frequently the teacher asks students about their own experiences with the themes in the day's chapter as well as connections to their outside coursework. In this way, the teacher opened a reflexive dialogue between students and the text within the class in order to deepen its personal meaning for them. I asked the teacher at the end of the lesson how they bring up issues like race in their course. LG stated that the teacher sets the environment and that the issues are easier to talk about if the teacher brings them up and talks about them in terms of their personal experience. LG added as a final comment similar to HD, that talking about culture is a conscious decision in their teaching (observation, October 22, 2015).

Connections to student lives. Lessons like LG's discussions on race demonstrate how teachers in the high-CQ group connected their lessons to student experiences and lives. In an example from an English language learner (ELL) class, TL demonstrated how they utilized their knowledge of student lives and language to help students understand a difficult English concept, the apostrophe s to signify ownership. In preparation for the lesson, the teacher highlights that there are differences in Spanish and French compared to English, framing the students understanding with "You are very intelligent and know a lot of Spanish and a lot of French." The teacher TL writes a sentence in French to illustrate the possessive and then has a student write it

in Spanish when there is some disagreement over how to write it. “this is Michelle’s pencil” compared to c’est le crayon de Michelle and este lapiz es de Michelle. TL has the students explore how the phrases are similar or different (it is about “de”) and look at how the apostrophe is used in English to show possession/ownership compared to de in Spanish and French. TL highlights a typical mistake made as students develop language control that “this pencil is from Michelle” or “this pencil is of Michelle.” They tell the students that these don’t work in English and that “Google Translate does not know this secret— ‘s = de…. We have to practice this one a lot—vamos practicar” (observation, December 1, 2015). In this example, TL shows how the high-CQ group connects content to lives, shared learning with the students and a deep knowledge about the students and how the content interfaces with their learning.

Teachers in the high-CQ group also often asked their students how the content also fit within the students’ experiences and perspectives. In a discussion of oral histories and oral traditions HD referenced a Hmong story quilt hanging in the school’s media center and asks if the students have seen it and know what it shows. Most of the students nod and say “yeah.” HD then compares the quilt to the oral tradition of the Anishinabe. When I asked him about the reference, he states that the story quilt is also in a children’s book that many of the kids know from elementary school and that he also wanted to draw their attention to connections in the curriculum and community, which has many Hmong families (observation, October 22, 2015).

AW also illustrated how the high-CQ teachers seamlessly incorporated the experiences and knowledge of students into the curriculum. AW introduced a lesson on color for their art class and presents notes on what interpretations of color are based upon for the students. The teacher talks about fast food restaurants and their use of color based on scientific studies that show that red “makes you hungry and want to leave” and the students volunteer how they have seen this in McDonald’s and Burger King. AW then talks about cultural meanings behind culture such as bridal colors. The teacher asks which cultures use white for bridal colors and which use

red. The students call out the United States and China. The discussion changes to other differences students noticed between cultures and a student shares that when she was at the grocery store, a lady came in and could only eat chicken broth for 30 days after they gave birth. The teacher responds that "Oh, that's a Hmong thing" and the Hmong students in class affirm this and voice their agreement. AW then shows a color and has the kids right how it makes them feel and models how a response should go—addressing physiology, cultural, personal/associational—and states that they will have different interpretations and that is ok, it is expected (observation, November 9, 2015). In these ways the experiences of students are recognized, legitimized and the students see themselves in the curriculum.

Medium-CQ teacher group interview responses. Only three teachers in the medium-CQ group discussed how they helped students make meaning out of the content or incorporated student voices into the classroom. MM discussed making examples from the text in their curriculum more applicable to student lives "I'm not necessarily going to talk about the stock market with some of these kids, I'm going to talk about their job as a cashier at McDonald's or I'm not necessarily going to talk about saving for retirement, I'm going to talk about saving for college" (interview, November 7, 2015). TF and AC both described activities to increase student participation such as partner work, sharing in small groups and group discussion rubrics. TF summarized their motivation and an approach they used in class:

> What I try to do to help encourage their talking ... Some groups this is not a problem at all. Some groups are getting there. If I draw a stick and your partner gets picked and your partner knows the answer, you get a point too. Points are given out in partners many times, yeah (interview, October 27, 2015).

For TF, student voices seem to equate to students just speaking as opposed to how students connect with the content and make meaning in terms of their experiences. Similarly, AC also

referenced the struggle in bringing in student meaning. In this way, the student voice in these classrooms is more about closed-ended question responses or recitation of facts.

Both TF and AC expressed building in routines in order to get students to speak in class; however, the content discussed by the students was different than in the high-CQ group classrooms as will be seen in the practices section below. AC also articulated a lack of readiness or development in their current practice to address student experiences and perspectives:

> I don't even feel like we fully tap into it all in all honesty, because there is a rush to let's hit this point, that point, that point, but I know that we're missing out. I know each kid brings so much. I think the challenging part is to find ways to let these kids become ambassadors, to bring us along, and to help us, through their experience, understand what's going on. Maybe that's going to be phase two for me. I see teaching's going to be different phases in which I get to learn and hopefully master different things.
>
> I have not mastered allowing the classroom to be ... almost a unit of nations type of mentality where we're all just able to just converse, share experience, make new meaning, and forge new idea ... I have not mastered that, but that is a desire because I know when I look at my kids and I'm just like ... so much that you guys have to offer. Unfortunately, I'm not at a place in my own competency of what that would look like and how to set the environment up for it, but I want that. (interview, October 20, 2015).

Similar to the developing awareness of student perspectives, AC's quote also shows how the developing readiness for some teachers at the medium-CQ level is paired with a knowledge that it is important and the students bring a richness in their experiences that have worth in the classroom. Translating the desire and knowledge into practice is the issue for teachers in this medium-CQ group when incorporating student voice, perspectives, and experiences are at issue.

Medium-CQ teacher group manifested practices. Unlike the high-CQ group, the medium-CQ teachers' practices were much more teacher-directed where students participated

when asked or where there were correct answers to be provided. Unlike the high-CQ teachers' classes where student voices were central to the learning and where hands on activities that put students in charge of their learning were the norm, these teachers were more directive in their lessons.

Open-ended questions. Unlike their high-CQ peers, the medium-CQ teachers typically sought out factual information from their students. Similar to their interview responses, the teachers in the medium-CQ group were less sure how to incorporate the student voices and experiences into their classes. In the observations, there were few examples where students were asked to interpret or offer opinions. In an example of current events, TF's conducting of student discussions is markedly different than PM's example above. The students in TF's class examine current events, focusing today on the extremely powerful Hurricane Patricia and the effects on Mexico after it made landfall. The students watch a short news video and then are asked questions by the teacher such as "how warm does the water have to be?" and "how fast are the winds?" The facts in the video correspond to a reading the students completed in class recently. The video focuses primarily on the experiences of tourists and how they were affected by the storm, and the teacher echoes this view stating that Mexico is a place that many people go on vacation. The teacher does note that Mexico is a country where people live and that they do have a president, though they cannot remember their name. The teacher next hands out a reading on the storm and probes the students for questions that they have before they read the passage. The students respond with questions such as "how many people were evacuated?" and "how many people got hurt?" As the students work through the article, the teacher struggles with the pronunciation of geography and officials (observation, November 3, 2015). Unlike PM's class, the lesson is about recall and comprehension of facts. Questions about how the media depicted Mexico or whose voices were used in the newscasts were not addressed despite the school's large Latino population.

Student voices. In the medium-CQ teacher group classrooms, student voices were present but more typically to answer factual questions rather than providing nuance and perspective to course topics. This is not to suggest that teachers in the medium-CQ teacher group did not engage their students or encourage participation, but the quality and content of the student contributions were limited more to the course content rather than the insights and perspectives of students. As an illustration, MM's math classroom incorporated significant student participation as students shared their work and critiqued solutions with peers. When there is student disagreement about how to solve problems the teacher devised a "Dueling Solutions" activity where two volunteers show their work to the class and the class assesses their work (observation, December 8, 2015). However, similar to the struggle stated by medium-CQ teachers in their interviews, the work done in the class lacks connection to student lives beyond surface level examples of changing text examples to more familiar names or terms for the students. The students are sharing their answers with each other but there is not the same making of meaning or learning with the teacher.

Connections to student lives. The practices of the medium-CQ teachers in this sub-theme were mixed. Some teachers' actions were more similar to their high-CQ peers while others were more similar to their low-CQ colleagues. However, these instances of teacher behavior in which lessons and content were connected to student lives were less frequent and were an exception rather than an observed pattern. To illustrate the range of practices, AC's class explored classroom respect in a writing exercise. AC pushed their students to reflect back on "the best class you ever had. Think about what the teacher did and what the students did to make this the best class you ever had." As the students write, the teacher connects the prior learning about incorporating sensory information into their writing to have the students write about their favorite teacher's behaviors, how it made them feel, and the students' responded to the teacher in order to create a coherent narrative. The teacher shares an example from his own past as an example (observation, October 27, 2015). In this class, the teacher draws on the student experience to both

create a learning opportunity but also to allow them to express their ideas and structure the content of the discussion. While this example from AC is similar to high-CQ practices, it was an isolated incident during my observations, potentially indicating that this is still an area of development for the teachers similar to what they shared in their interview.

On the other end of the medium-CQ range, TF presented a lesson on identity incorporating an anchor video that accompanies the class reading about a young woman who runs away from home and takes on a new identity. In the class I observed, the teacher started class with an exploratory question to the students if they know what identity means. The teacher explains that it is "information about you, but what information?" The teacher takes out their driver's license and talks about what types of information is listed on it. They then tell the students what is not listed on the card such as their Mexican grandmother, their profession, family members. The teacher extends it to the students stating that the license does not say if "you are a football player, if you like math, if you are a good dancer, William. Isn't that right, William?" The teacher asks the students to then write at least two items that make up their identity. As the students write, the teacher puts a visual up on the digital whiteboard the word "identity" enclosed in a circle with legs to "what contributes to a person's identity?" and "why might some people want to change their identity?"

The students share their ideas about identity such as sports, possessions, family, age, and jobs. The teacher adds ethnicity. Before fielding the student responses on to why would someone want to change their identity, the teacher tells them that this is related to a story that they will read today. The students reply that they might change their identity if they want a different family, do not like the way they look, or if they do not like their life. The teacher then shares their own example about moving away to college and leaving their small town and being able to be more outgoing and be the person they wanted to be. The anchor video is shown following this short discussion and consists of a woman, Heidi, who returned to Vietnam to visit her birth mother

after being sent to the United States as a child. In the video the woman describes how their adopted mother pushed Heidi's Vietnamese identity to the background, and also Heidi's dislike of Vietnam and how they felt like an outsider both within the country and with their birth mothers' family. The teacher then asks the students "how do you think Heidi would describe her identity now?" The students respond that Heidi is American. The teacher comments that Heidi would probably not consider herself Vietnamese. The discussion shifts to whether the teacher would be the same person if they changed their appearance by tanning, getting tattoos, and blue contacts (observation, November 11, 2015). In this example, the teacher's voice predominates the lesson and the students are more passive in receiving the knowledge. The topics raised in the identity lesson such as immigration, Vietnam, identity, and especially the student responses to why someone would want to change their identity are not taken up by the teacher nor are student ideas explored. The perspective of the video and Heidi's experience as an adopted mixed race child are left unquestioned and unexplored by the teacher leaving a potential way to connect to student lives unaddressed.

Low-CQ teacher group interview responses. Only one teacher in the low-CQ group discussed how they drew in student voices into the classroom or engaged students in meaning making. HP described how they used character studies to engage students in the content

> We learn about different people's beliefs, different people's understandings, and we take a lot of what we're doing and, as students, study it. We study characters, but we talk about them in the way of, that whole, it is okay to be you. It's okay for them to be them. We don't have to say that this is bad or this is good… We take it almost as character study. Then we also understand how we are different. Everyone's belief systems are different and we have to understand and respect that…We really come from a place of, we study everyone and we can even look into ourselves as characters, as how would that be if you were the character in the story? (interview, October 29, 2015).

Student imagination is addressed in this example, but the responses the teacher describes are constrained within the context of the story and an understanding for how students can bring in their own experiences to make the content relevant was not raised in the interview unlike teachers in the high-CQ group. Additionally, difference is addressed in HP's response through a supreme relativism without attempts to understand how differences might affect individuals' experiences or interpretations or how these differences might push up against issues such as power or privilege. As will be seen in the next subsection on manifested practices and also in critical evaluation, in HP's classroom most of the lessons I observed focused on reading comprehension and recall knowledge. Topics such as unfairness or how students might make meaning out of these topics was largely absent despite their presence in the novel the students were studying. This may be potentially interpreted as demonstrating how a lack of awareness or how to address these topics may result in not seeing student voice and experiences as valuable.

Low-CQ teacher group manifested practices. The low-CQ teacher practices were very similar in enactment to the medium-CQ group, as these teachers focused on recall, closed-ended questions, and identifying correct answers. In the low CQ group, the teachers' lessons required more recitation and replication with fewer instances of student meaning or voice in classwork and with a focus on the teacher's voice and authority. In an illustration of this type of teaching, ST's class worked on a genetics unit with a lesson on Mendel's pea plant study. A worksheet is distributed to the class and the students glue the sheet into their lab notebooks. The students then search in their text for answers to the questions on the worksheet. Following worktime, the teacher posts the worksheet on the digital whiteboard and the students take turns highlighting parts of the text and writing in the answers (observation, December 10, 2015). In these classes, the questions tend to be recitation and focused on the class material. The student experiences and perspectives are typically absent.

Open-ended questions. The classes in the low-CQ teacher group tended to focus on direct instruction with few examples of open-ended questions that asked students to share their perspectives or experiences. One teacher, HP, did provide opportunities for classroom discussion and utilized a fishbowl discussion in one class I observed. However, the lessons were typically constrained to the material the students studied and the questions typically are factual or recall in nature. In one class HP began by reviewing the previous day's reading in the novel *Tangerine.* The teacher next has the students open their copies of the novel and then spends the majority of the class reading out loud to the students and most of the class follows along except for a few students (a group of girls closest to where I am seated) who put their heads down. Periodically the teacher stops to ask questions such as "what does the Cruz family do?" or "what do they farm?" and deal mostly with comprehension (observation, November 19, 2015).

Student voices. The low-CQ teachers relied more on closed-ended type questions when student voices were engaged, similar to their medium-CQ peers, student experiences or interpretations were largely absent from these classrooms. Additionally, in two out of the three classrooms I observed, student experiences or perspectives were seldom heard at all. For example, in the math classroom of MT there was only a single instance where a student showed how they arrived at a solution to a problem to the class out of the 10 times I observed their class. (observation, December 15, 2015). While students were asked questions about steps in solving problems in MT's class, it was the teacher voice that dominated the classroom. In the English classroom of HP, the teachers' voice similarly was central to the classroom. In the class periods I observed, the teacher read out loud to the students, asked comprehension questions, and then provided group work time on packets relating to the novel. In one exception to these practices that I observed, HP conducted a fishbowl discussion to conclude the novel. Students prepared questions on the novel in advance and then engaged in a student-led discussion of these topics. The teacher remained outside the discussion "fishbowl" but kept a notepad in order to pass

questions to students. Most of the questions pertain to the text until the end as students discuss whether the book was worth reading. A student responds that they can connect with the book, but the comment is not picked up by their classmates nor the teacher and the discussion ends (observation, December 3, 2015).

This classroom discussion of a novel was very different than the ones I observed in the high-CQ classrooms such as LG's discussion with their class about *Sula* above. In the high-CQ classrooms, the material served as a window into an experience or perspective that the students then explored through their own experiences to create meaning. The teacher viewed that the students possessed valid knowledge and that their experiences would enrich the learning of the class. In the low-CQ classroom of HP, the students are asked about the novel, but not necessarily entrusted with exploring its themes or connecting it to their lives.

Connections to student lives. Efforts to connect to student lives were absent from the low-CQ teacher group's classrooms. Even in HP's fishbowl discussion discussed above, the discussion focused on the text and the single question about connections to the text were left unaddressed. Similarly, as will also be discussed in the section on critical evaluation, the novel's treatment of issues such as unfairness in school resources or opportunities were not connected to the students' experiences or perspectives.

Critical Evaluation

One of the most significant findings accompanying teachers making meaning along with their students was how teachers across the levels of CQ capability engaged or did not engage their students in critical evaluation or explorations of sociocultural issues. During the interviews and observations, teachers in the highest CQ group embraced these topics, with only cursory levels in the medium-CQ group and almost a complete absence in the low-CQ group. What this may suggest is that critical evaluation and engagement in sociocultural topics may be a result of both undergirding intercultural beliefs and a culmination of practices as students in the high-CQ

classrooms frequently were asked to be reflective and to share their perspectives and experiences. These findings also may raise questions about the teachers' survey assessment of their own intercultural practices. While most of the school's teachers stated that they felt culture was important and that it was reflected in their classrooms, lessons, and content, the findings in this section in particular may suggest that the execution of culturally relevant practices is not as widespread or deep as teachers report. Additionally, it may suggest that the undergirding intercultural capabilities are a necessary precursor to the enactment of culturally relevant practices. These implications will be dealt with more in depth in the following discussion chapter.

High-CQ teacher group interview responses. Teachers in the high-CQ group described a willingness and a confidence to engage in sociocultural issues and critical evaluation with their students, potentially reflecting their nuanced awareness and intrinsic interest in these areas. Within their interview responses, teachers described how they engaged and validated students' interests, experiences and perspectives to drive lessons as well.

Many times, high-CQ group teachers' linked student interest and meaning-making into explorations of social justice issues and sociopolitical and sociocultural critique. In formal lessons, informal conversations, and materials like film and texts, almost all the teachers in the high-CQ group responded that they asked their students to engage topics of race, gender, socioeconomic inequality and sexual identity. The world language teacher FF illustrates the intersection of student interest and critical evaluation in an incident with a struggling student that they worked to engage in the classroom. After weeks of working with the student to build connections and engage them in the class, the student made a suggestion that the class use music "on Fridays as a dual like culture slash you need to eat your vegetables and listen to French people speak French kind of thing" (interview, October 16, 2015). A short time later, the student brought in a French pop song for the teacher to play which was met with enthusiasm from the class and inspired other students to seek out music for their section. One of the artists that the

students really enjoyed is a Belgian musician named Stromae. In one of the songs and accompanying music video, this artist, the teacher FF recalled:

> split himself down the middle and he was a guy on one side and then he had a really feminine look on the other side because he is an androgynous looking man and so he could pull it off really well. Every time he had the right side facing, you will see the female perspective and then the right side his male perspective, and it was all about how guys are all the same. They loved it (interview, October 16, 2015).

In the response above, FF described how they utilized student interest, leveraged a teacher-student relationship to engage a student in learning, and also open up a discussion about gender. This final point was of particular importance to FF's class since one of their students is a transgender transfer student.

Similarly, AW in their art class demonstrated both how the teachers in the high-CQ group were aware of their own positionality and used their lessons to perform a critique of the curriculum:

> Yeah. I definitely am aware that I am a white face in front of them and I have the responsibility, I think, to give examples of artists who aren't white basically. Or artists who look like my students, and not just subscribe to the old dead white guy curriculum. I mean, I love graffiti actually because it's an art movement that's created by kids, honestly by youth in big cities who felt like they didn't have a voice and they weren't being listened to. Then they started saying "Hey, here I am." So I mention that a lot of the time, that it's one of three components of the hip hop culture, which is like a big part of African-American history (interview, October 26, 2015).

AW taps into student interest to engage students in a critical evaluation of art standards but also exhibits an honesty and authenticity in their positionality.

High-CQ teachers did not rely solely on formal curriculum to engage their students in critical evaluation or sociocultural issues. An illustration of how high-CQ teachers use informal discussions with student, PM took an opportunity to engage their students on a personal level about complex issues like race and the power of language around the use of the word "nigger":

> We talked about, with the N word I was like, just about every year, in some way or another it comes up in class. We'll read about its history and we'll talk about who can use it and who can't use it and when you use it. I'm very comfortable telling them, I said to them, they were like, "Anyone can use it." I was like, "Raheem," I was like, "If I saw you in the mall and I was like, "What's up nigga," he starts laughing. I was like, "So get real. I'm not saying it." My fiancé is African-American too, and obviously he's my fiancé but I still don't say it with him. I told the kids, I was like, "If I'm in the car listening to a song and I'm blasting it, I'm going to blast it," and they're like, "[PM]!" It's just like bitch or any other word in the context of the song, but if we were sitting here together, I'm not going to, and I don't know if that was right or wrong to tell them, but that's how the conversation went (interview, October 25, 2015).

The high-CQ teachers, like PM in the example above, exhibited a frankness and a respect for the students' maturity and experience in talking about issue but also a willingness to engage in topics that could be potentially complex, contentious, and emotional. Instead of glossing over the complexity, the teachers described how they engaged the students in the nuances of the issues.

While almost all of the high-CQ teachers engaged their students in social justice or critical evaluation of content and institutions, two of the teachers in the high-CQ group did not address these issues in their classes. One teacher, LS, cited having less space to address the issues in a content heavy class (and then provided examples of how they incorporated them into another during an informal conversation), the other, the ELL teacher TL, stated that a hesitancy due to the

potentially contentious, uncomfortable, and fraught nature of the content and the histories of their students:

> Then again it's like, why don't I feel comfortable, I mean I think part of it is like, I don't want to talk about gang violence with my Salvadorians. It's like, it's too raw, it's too real. It's sitting in front of me, like victimization in that chair right there. Just having this emotional lightning rod of a husband that I have through Ferguson stuff. We went to West Africa for the whole summer came home to Ferguson it's like, oh geez. It's so real that I, pardon me, it's scary to touch on something so explosive and painful and raw that's happening I the lives of our students every day. I think it's dangerous, it feels very dangerous. We feel so ill-equipped to discuss it, much less do something about it. I think it's so terrifying (interview, October 27 2015).

Both teachers discussed in their interviews and demonstrated in their observations how they enacted many other culturally relevant pedagogical practices such as classroom spaces with high expectations, foregrounding of student voices and perspectives, and a deep interest in culture. However, the cultural critique was a challenge. Two teachers expressed hesitancy to initiate discussions about the nearby Black Lives Matter protests with students; however, their hesitancy was rooted in an awareness of their own positionality and concerns about how students would perceive a white adult raising the issues. Both teachers instead stated that they preferred if the discussions came from a student query and then expressed a willingness to engage. Despite the initial hesitation, their responses indicate sophisticated and nuanced understandings of power dynamics within the classroom and their own positionality as it relates to their students.

High-CQ teacher group manifested practices. Almost all of the teachers at the High CQ level engaged in sociocultural topics or engaged in critical evaluation in their classes. Only two teachers—in ELL and the sciences did not expressly address sociocultural issues or engage critically with topics such as race, gender, income inequality. However, it needs to be noted that

while these two teachers may not have engaged in the sociocultural critique of culturally relevant pedagogy they emphasized other elements of culturally relevant pedagogy through high expectations, equitable relationships, and student voice. What is also interesting about these other two teachers is that they exhibited in their interviews complex, nuanced and rich awareness of both their own positionality and culture but also deep knowledge and awareness of their students' realities and challenges. In other words, it may be interpreted that the teachers potentially had the necessary undergirding awareness, values, interest and mindset to engage with culture in the classroom and potentially could engage with the topics if coached or provided additional support. Additionally, these teachers demonstrated an interest and awareness of culture's role in the classroom but were not quite sure how to integrate critical inquiry of these topics into their content areas, or into the curriculum in expressly critical ways.

As will be discussed in the following discussion chapter, the implications for professional development for teachers is to provide guidance and potentially time to develop the connections and critique in their classrooms as the necessary groundwork has been established in terms of understanding and readiness. For these teachers, a nudge or guidance in how to incorporate critical elements is all that may be needed as they already possess knowledge, awareness, and motivation to address culturally relevant issues in the classroom.

The majority of the high-CQ group teachers in the study engaged their students in critical inquiry across different topics, sometimes expressly part of the curriculum and in the materials selected by teachers but also in outside issues raised by the students. Across the teachers in the study, deliberate and explicit choices were made about engaging students in the classroom in the larger sociocultural issues in their lives and beyond their community. The critical engagement and addressing of sociocultural issues did not happen in isolation. Teachers, as described in earlier sections, worked to build communities of trust and safe spaces for students to explore and share themselves and their ideas. Student voices and experiences were foregrounded in these

classrooms as teachers sought out and validated student experience, knowledge, and perspectives. Teachers also used eliciting open-ended questions to invite students to explore issues and engage the class. These efforts can be seen potentially as a mix of pedagogical skills paired with nuanced awareness of students and selves and a deep intrinsic interest in cultural issues.

The classrooms and the critical evaluation happening in them can be potentially viewed as a culmination of the other factors and efforts by the high-CQ teachers as these efforts may have facilitated a virtuous cycle of the engagement to develop. For example, teachers interest in student lives and sociocultural issues combined with strong teacher-student relationships may have allowed teachers to raise sociocultural topics or engage in critical evaluation of class content. This strong interpersonal foundation paired with inquiry-based classroom practices that foregrounded student voices may have had the effect of deepening student engagement in the courses. Teachers appeared to also utilize their deep knowledge of students to create relevant connections from the content to their students' lives. As a result, this virtuous cycle of capabilities and practices may have created classroom spaces of shared learning, with the teacher positioned not as the only expert but a learner and facilitator alongside the students.

Within the high-CQ classrooms, how teachers engaged with the critical evaluation and the topics were varied. No single approach dominated with the exception of the preponderance of student voices. In some cases, the critical evaluation came through student expression in written and performance work. In others instances, culture and sociocultural issues were just part of the fabric of discussion, seamlessly interwoven in being and the content. Other teachers took on specific social justice issues such as poverty that they felt the students needed to be aware of and then engaged them through high-interest materials, often asking their students to confront uncomfortable but relevant issues. The categories of how teachers incorporated this content into their instruction and teaching practices, although diverse, did fall into two broad categories: (1)

sociocultural topics and critical evaluation woven into course content and, (2) expressed social justice content.

Woven into content. Teacher practices in this category wove the examination of issues into the lessons and content as a matter of typical classroom teaching and learning or as a facet of larger units or topics. MS explained that they specifically chose books to provoke students and to engage them an examination of issues that are relevant to students lives such as race and racial inequality and they structured lessons around these issues. The example from MS that introduces this chapter is an example of how the high-CQ group teachers leverage student experiences and interests into deep discussion of topical issues that affect students' lives and are woven into their curriculum. Also important to note is how the teacher incorporated the experiences of students to help the meaning-making from the content. The teacher in the high-CQ classes acts as facilitator but the discussion comes from the students and they make it meaningful. The discussion is also personal for the teacher as well and they acknowledge this.

High-CQ teachers did not just incorporate reading materials, novels or art to engage students in critical evaluation. UM used the school's mission statement as a springboard for a discussion on values and how these are reflected in their experiences. Class began with the prompt "Read the [school district's] core value below. Discuss with your group: what does it mean to you? Be ready to share." Below the prompt is one of the school values "We believe that: "Relationships thrive when there is mutual respect and trust." After the students write, UM poses the question "what is a value?" Students respond that it means valuable or precious. UM links it back to their understanding of the humanities definition of values and a student responds that it is an idea that is important to you. UM asks the students if they agree or disagree. The students agree and UM brings up the idea that values guide you, or help you make decisions—almost like morals. The teacher shares some personal examples and then links it back to the students' experience in school and the school value of relationships and respect.

The teacher, UM, next asks the students the value of respect means and then explores if it applies in their experience to the student-student relationships, teacher-student relationships, or student-dean relationships. The students discuss these ideas in small groups and then reconvene as a whole group to share their responses. One student comments that he does not trust the teachers and another student agrees and says that teachers don't trust them as well. Another student comments that they have to respect their teachers but they do not cannot tell them about what is going on at home and cannot trust them. UM tells the class that they see a lot of nods in agreement from the class (observation, November 6, 2015). This lesson shows how high-CQ teachers foreground the student experience and how they facilitate the discussion so that the student voices predominate. The topic is a difficult and disturbing one to raise in the classroom and this example shows how the relationship and trust built in the classroom community allows for students to engage with the topic in safety.

Intentional social justice content. While integrating sociocultural topics or critical evaluation into the course content and practices was more common, teachers in the high-CQ group also created units or extended lessons to directly address sociocultural or social justice issues. Five out of the nine teachers created specific content addressing topics such as exploring cultural differences, Native American rights, terrorism, homophobia, cultural appropriation, and poverty. One example that illustrates this is how PM responded to the homophobic comments made by some of her male students by partnering with the school's community health educator to create content on bias, frames of reference, gender and sexual diversity.

In the team-taught lesson, PM and the community health educator began with a "framing" activity that asked students about what forms their perspectives or frames of understanding. The students take turns standing in front of the class and share out their frames. The teacher has created a frame and the students are asked to compare theirs to the teacher's followed by a discussion about whether the differences will affect their work together? PM

interacts with the students about how they might each respond to the same movie, "Straight Out of Compton" and asks the student "What do you think I felt when I saw that scene?" The point of the discussion is to help the students understand about flipping your frame or turning it around to see things from other perspectives. The class transitions to watch the film "Love Is All You Need, "a short film that flips sexual diversity on sexual diversity and positions same-sex parents and homosexuality as typical and heterosexual attraction as a target for bullying and ridicule. Following the film, which ends with a suicide attempt by the bullied heterosexual main character, the teacher and health educator discuss with kids the role of frames and also address the language and behaviors of students. The class ends with the teachers asking the students why they watched it (observation, October 29, 2015). PM also paired with the community health educator and other outside resource personnel to address sexual violence.

Medium-CQ teacher group interview responses. While high-CQ teachers expressed confidence, medium-CQ group teachers, expressed that they were unsure of how to incorporate cultural themes, student experiences, or critical evaluation of sociocultural or sociopolitical issues into their teaching and lessons. Within the medium-CQ group, only three teachers expressed this uncertainty while the other members did not address the topic in their interviews. TF's comment below captures the uncertainty expressed by the medium-CQ group teachers in how to address the critical evaluation in their teaching:

> Yeah. I just try to be aware. I don't even know what that means though...I mean I do know what it means. I know what it means to read a million times about how the struggle between different ethnicities in the United States are so different. I can read about those all day long…At the end of the day, do I just make all my kids act like white kids in my classroom? I don't know. I don't know... I don't know that I'm actually helping them or not (interview, October 27, 2015).

In this example, and reflected in other teachers in the medium-CQ group, while TF expressed an

interest in learning more and understanding the issues surrounding tensions between ethnic groups in the United States and had a sense that there were issues to be addressed in the classroom, how to enact or undertake these issues was less clear. Some of the teachers knew that the issues are important, but subordinated them to other concerns, similar to the incorporation of student voices in their practices, these are areas for future development, or as AC referred to them "phase two" in their practice (interview, October 20, 2015).

Within the medium-CQ group, two teachers did discuss culture, use materials in their classroom that addressed culture or had opportunities to access cultural issues, but again the critical evaluation aspect was ignored or avoided. This avoidance included a reluctance to consider the cultural implications of material selection or in engaging with topics of tension such as acting white. BD describes the use of Sean Covey's *The Seven Habits of Highly Effective Teens* (2014) to address class themes like compassion, respect, trustworthiness and success:

> And then, what a lot of this stuff also comes from is Stephen Covey's "Highly Successful People". I've got the teen version right here. I take a lot of those themes. Responsibility. Ownership. I try to integrate it into that. And then that way, it's not just a cultural speak but more of a ...The careful thing and the kids are very sensitive to this, is they also associate a lot of these behaviors with, "Oh, you're selling out. You're trying to be white." This way, it's a nice way for me to bridge this without going down that road because they're coming from a culture of "I want to be an individual. I want to do my own thing." Look at the African American names. Even the spelling of common names that are spelled differently. There's very much a culture based in there that I want to break away, I want to do my own thing (interview, October 23, 2015).

Instead of grappling with the issues, BD talked about being able to avoid it or reframe the topic in terms of success or being proactive, similar to the approach used by the other teacher who also uses the same book in the medium-CQ group.

On the other end of the medium-CQ group, the cultural or critical evaluation of materials and content was ignored as they stated other considerations in their choice of materials. However, this same teacher also engaged students in informal conversations around topics like white privilege:

> Yeah. I've had some really interesting, candid conversations with some of these kids in this building. Conversations about white privilege. Conversations about the fact that my kids are guaranteed a solid middle class existence just by the matter of the fact that they're my kid. I'm a middle class white guy with a master's degree and a house full of books…Being aware that that's a real thing also works in my favor because they know that I'm not just sitting there bullshitting them and trying to sell them some kind of party line. I think a big piece of what gives me credibility with the kids is the fact that I recognize the differences in the rules and I recognize that the rules, again, we call them street rules, as it were, are legitimate… That it's not that they can't authentically be that person, it's just that, "Different places, different spaces," different rules for different situations. Finding success in this world unfortunately means being able to operate within white spaces, which is a tough thing. A lot of these kids, they're like, "Well, how do we change that?" That's the question (interview, December 16, 2015).

In this example, HB acknowledges the legitimacy of student experience but does not necessarily view their perspectives as relevant in terms of classroom learning or content. Their example shows how within a single individual the mixed range of approaches. They understand that the students have different experiences which affect student behavior but at the same time they subordinate issues of culture in their selection of materials. This mixed understanding could potentially be interpreted as an area of awareness that is still under development as it lacks the sophistication and social justice stance of their high-CQ peers. Similar to other statements by members of the medium-CQ group, these teachers exhibited capabilities and understanding that at

times fit more with their high-CQ group colleagues while at other points more like the low-CQ group peers. Topics are not evaluated or critiqued but instead broached as saving or acknowledged but without examination or critique.

Medium-CQ teacher group manifested practices. Teachers in the medium-CQ group typically treated sociocultural issues cursorily if they were brought up at all in their classes and without out critical evaluation or exploration of student perspectives or experiences. In the interviews, some Medium CQ teachers expressed ambivalence in what to do with the cultural material, a reticence to engage the issues, or that they were working on the issues but not fully prepared at this point in their career. One other teacher expressed concern about the potential divisive nature of addressing differences. Others also did not see a reasons to deal with these issues in school.

Woven into content. In the classrooms I observed I witnessed teachers review current events with students, tell students about racial tensions, and introduce the concept of identity in a short story. However, in these instances, teachers more often controlled the learning, preferring to tell or bank knowledge in their students rather than engage or draw out student perspectives. For example, at the end of a class in BD's classroom a student asks where BD was born. The teacher replies that their place of birth was close to the Mason-Dixon line and may explain why a young white woman might have put a mixed race boy up for adoption. BD explains further that he was put up for adoption at the time that Dr. Martin Luther King, Jr. was assassinated and that racial tensions were high (observation, December 8, 2015). In this short interaction with a student, the teacher has the potential to engage the student about race, history, and current events but the conversation ends. In this instance the communication is more unidirectional and the student is the recipient. In a separate instance BD asked a student if they had seen anything in the news about the Black Lives Matter protests occurring at the nearby police precinct. The student replies that they talked with their mother about the events. The teacher then tells the student that how the

protestors are conducing themselves is the issue and that "Brother Martin and Brother Malcolm would not agree" (observation, December 1, 2015). Again, in this instance the teacher implies that there is a correct answer and the conversation ends without an engagement with the student.

In a different example, teachers in the medium-CQ group avoided or missed opportunities to discuss topics with students potentially reflecting a lack of awareness or comfort with sociocultural issues. In one class activity, a discussion of current events, the students have questions about why ISIS would attack Paris. The teacher states: "ISIS is mad since France is getting in their business" and wants the world and country to be a certain way (TF observation, November 16, 2015). The teacher continues stating that "ISIS is a hard thing to understand. It is a lot of people in different places. Can't just lock them up. Can go after their leaders." (TF observation, November 16, 2015) and then switches to a new topic. In this instance the teacher sticks to the content without exploration or how their students might understand or think about it.

Similarly, in a discussion about proactive behaviors and reading from Covey's *Seven Habits of Highly Effective Teens,* the topic of forces that hold people back is raised. In the passage that the students read, a teen in the text discusses a friend who complains about how white people block their opportunity. The passage ends with "I remain convinced that the only person who can hold you back is yourself" (p. 60). The intention of the teacher is to help their students be more proactive in their behavior, but the assertion in the text is left unacknowledged and unexamined.

Intentional social justice content. In the medium-CQ teacher group, I did not observe any specific lessons or content that explicitly addressed sociocultural or social justice issues. I did have a single conversation with BD about how they might use police call data to teach about statistics and how data is presented "numbers tell a story, numbers are real. How do we use numbers in our lives?" (informal interview, December 7, 2015). When BD piloted the lesson, they told me that it did not go well and they dropped the topic with their students.

Low-CQ teacher group interview responses. In their interviews, the teachers in the low-CQ group did not discuss how they engaged their students in sociocultural issues and struggled to state how they engaged their content critically or raise topics of social justice in the classroom. This mirrors their responses in CQ Drive and in CQ Strategy's sub-dimension Awareness. Only one teacher described how they approach the topic of cultural differences in their classroom. To address student understanding of cultural difference, HP responded that they provide stories like Vonnegut's "Harrison Bergeron" and Bloor's novel *Tangerine* to start discussions with students:

> I do a story called "Harrison Bergeron" and we talk about how everyone is supposed to be different. How everyone being the same and they're like really annoyed throughout the whole story about how everyone has to be the same. I make sure to have that discussion. Our story Tangerine, we have a kid ... The main character actually, he has an IEP and we have to go over what that means and how people are different and that's okay… We talk about it not from a, well your culture is different, but we're different people, all of us, even if we have grown up in a similar culture or things like that. We're in the same area, but we're all so different. That's I think, where more I take it from (interview, October 29, 2015).

The teacher in the example above raises the topic of individual differences but the discussion ends with a relativistic understanding that differences exist without engaging the issues around the differences or their situated meaning within the students' contexts. Similar to some of the medium-CQ group teachers, difference exists but the development ends there. There is not an engagement of how or why or what these differences might mean to the students. This lack of depth combined with a lack of attention to understanding other dimensions of difference may have the effect of delegitimizing or alienating students as their perspectives and lives are pushed to the periphery without a space to develop awareness or meaning for both teacher and students.

This should not be interpreted as ill-intentions by the teachers in the low-CQ group, but an area for development.

Low-CQ teacher group manifested practices. In their interviews, the low-CQ teachers did not address sociocultural issues or, if they did, addressed them very cursorily. Given their responses it is not surprising then that these elements were absent from their classroom practices. One teacher incorporated some limited discussion of socioeconomic fairness and school resources in the novel that the class was reading. Similar to this teacher's practices with student voice and making meaning, they are in control of the content and they address the issues superficially and without evaluation.

Woven into content. As an illustration, during an observation the teacher read out loud to the students from the novel *Tangerine* the topic of how the poorer Latino families experienced an upcoming frost was compared by the novel's author to how the wealthy white families experienced it. The text describes how poor Latino families need to work all night since the freeze will ruin their crops. However, the wealthier white families greet the freeze with hot chocolate and fires in their fireplaces. The teacher acknowledges that the experiences of the two groups is different but the discussion never moves into the students' experiences or thoughts about fairness.

I approached the teacher at the end of the class to talk about how they talk about the novel's theme of fairness (it is also a theme on their study guide). The teacher said that the kids pick up a lot on the unfairness of treatment between the brothers. In terms of the difference in schools' socioeconomic class and race, the teacher addresses that some schools have more than others and that there are plusses and minuses, for example: some of the schools in the book have mobile classrooms. The teacher connects the idea to the condition of their school and that some districts have more money, but the idea of social justice or equity does not seem to be present in their explanation to the students. The teacher also said that they discuss who the kids would rather

hang out with and the soccer captain of the poorer school is typically favored (HP observation, November 10, 2015). Unlike in the high-CQ classrooms, the social critique does note emerge, nor do efforts to include student voices and experiences. In a discussion about one of the novel's characters transferring schools for better opportunities on a sports team the teacher incorrectly provides a generalization about the realities of high school sports and fair competition for scholarships, linking it to the open enrollment rule in their state (observation, November 30, 2015). In this instance as well, the teacher controls the content and tells the students instead of engaging in a critical exploration of the issues.

Intentional social justice content. Similar to the medium-CQ teacher group, there were not any observed lessons or units that addressed sociocultural or social justice content expressly.

Summary

The study's school site is like many urban and first-ring suburban schools—high proportions of students of color being taught by a predominantly young white teaching corps. Most teachers at the school report that they believe culture is one of the most important elements of their work and but how and in which space they address culture varies. Additionally, though teachers stated that culture was an important consideration in their teaching practice, only a small number reported specific instances that informed their views and pedagogy. As a faculty, the teachers' CQ self-reported assessment scores fell within the middle two quartiles of the world wide norms for all the CQ dimensions. However, just under half of the teachers in the school assessed their CQ Strategy in the top quartile.

The sample of teachers in the study represented a cross-section of the teaching faculty in terms of licensure area (with the exception of health and physical education), gender identification, and experience. Participant race was not discussed formally during the semi-structured interviews but within the sample pool, four teachers identified themselves as members of non-white ethnic or racial groups. In regards to the CQ self-reported assessment, the sample

was weighted with more high-CQ teachers in order to examine potential patterns of these teachers and to determine CQ's applicability in understanding teaching practices. While this high-CQ group is atypical in terms of their mean self-reported scores, the medium-CQ group was fairly representative of the mean scores reported by the school as a whole.

What is interesting in the findings, especially between the interviews and observations, is that teachers at different levels of CQ did perceive their students and practices differently and how deeply they enacted culturally relevant pedagogy principles in their teaching. What the CQ assessment and data collection did not find was a means of determining effectiveness of the teachers as a function of their CQ profile, meaning the CQ assessment, interviews, and observations were not evaluations of teacher classroom proficiency. It has to be noted and understood that all of the teachers in the study demonstrated deep care for their students, dedication to their work, and professionalism in their conduct with students, administrators, and their peers. What did emerge over the course of the interviews and observations is that teachers at higher levels of CQ in this study did more effectively enact elements more closely related to Ladson-Billings' (1995; 2009) culturally relevant pedagogy than teachers at the lower CQ levels. The higher CQ teachers had more equitable relationships, included more student voices in their classroom, and included more cultural content and critical evaluation in their teaching. Teachers at the lower CQ levels enacted some of these elements but emphasized some areas more than others and struggled with some areas, especially the incorporation of culture and critical evaluation into their teaching practices. This may suggest that teachers' awareness of other perspectives and the ability to see outside of the self and engage with other views, coupled with the belief that students' have valuable knowledge to offer, may affect teachers' enactment of culturally relevant practices. The integration of the CQ findings, the relationship to culturally relevant pedagogy, and implications for teacher professional development are discussed in the following chapter.

Chapter 7

Discussion of findings

Introduction

Today's class begins with three writing prompts: "1) Discuss: what are your plans for winter break? 2) In 1776, only white men could vote. What is different today? 3) What does the word 'strive' mean?" After writing for a few minutes the students discuss how voting has changed in the country and who could participate. A student asks a question about what if a black and white couple had a child. Teacher addresses that this wasn't allowed. Another student asks about what if you were a woman? The teacher asks the student to hang on to that question for the next activity.

The teacher has the students break into small conversation groups to discuss the winter break prompt. While the student share the teacher goes around the class and checks in with the kids. The teacher brings the kids back together and has a student class leader conduct the discussion about the word strive. The student calls on their peers and the students respond with Accountable Talk phrase stems. One student shares that strive is linked to protestors. The teacher halts the discussion and draws attention to the classes' non-verbals. The teacher points out that students all looked like they were listening and thinking about their classmates' responses. The teacher also validates the student's connection to protestors since it is something that they discussed in class.

In this class, the students' voices predominate and the teacher allows the student leader to take responsibility for directing the discussion with their peers. The teacher models active listening and Accountable Talk through stems like "I heard that…" and then paraphrasing student ideas. As a student looks up words for the discussion in a dictionary—he points out the picture to me for the entry on "family". It is only a white family—he points out that there are no people of color.

The class transitions to the agenda for the day and they are working on "Striving for Change" a topic in their course materials and linked to the activities over the past weeks in class. The first activity is an agree/disagree activity. The teacher needs to lead this one but she first asks the student leader if she can run it so he can participate. He agrees and takes a seat. The teacher explains that this is a lesson about a group of people gaining the right to vote. The teacher starts with an example that is grounded in a student example—a new rule that only girls can eat in the cafeteria. The students move to the side of the room that they agree or disagree with the rule. Once the students move, the student leader leads the discussion and the students use Accountable Talk to engage with each other. The teacher tells the kids that she was impressed by how they used Accountable Talk, and that this is an important conversation. A student made a homophobic remark about a student—it is teasing, but the teacher stops the discussion and talks about how negative comments like that hold everybody back and that everyone needs to be safe (UM classroom observation, December 17, 2015).

This final observation vignette illustrates how high-CQ teachers weave together elements of CQ and culturally relevant teaching practices through the student voices, awareness of student perspectives, equitable relationships, shared learning, and social justice content. When I began this study, perhaps naïvely, I expected to find highly culturally competent teachers seamlessly code switching their behavior to engage different student populations which I could then tease apart and hopefully explain to future teacher candidates. Instead I was given windows into the deep motivations of teachers, insights into how they approach their practice, and how they understand their own and their students' perspectives and beliefs. In a way, the teachers in the study provided not a showcase of actions but perhaps the qualities and capabilities which set the stage to enact culturally responsive pedagogy. The conversations with teachers during the interviews and in the spaces between observations or in the hallways of the school combined with

extended observation time allowed me to potentially see and unpack how these teachers' beliefs and perspectives manifested into pedagogical practices.

What was also surprising from this study's findings were the points of convergence and divergence between teachers' conceptualizations of teaching and their classroom practices with CQ. As will be discussed below, the findings may indicate a relationship between teachers' cultural intelligence (CQ) and their capabilities to enact culturally relevant pedagogy. The findings of this study suggest that higher CQ teachers' practices align closely with Ladson-Billings' culturally relevant pedagogy (1995; 2009). How the findings address the study's four research questions concerning the teachers' practices are detailed below including a proposed model for the potential relationship between CQ and culturally relevant pedagogy. The limitations of the study and the implications of the findings and model for pre-service teacher candidate and in-service professional development are discussed in the final section of this chapter.

Research Question 1: How do teachers at different levels of CQ development teach culturally diverse students?

Almost all of the teachers in the sample had high expectations for their students, built teacher-student relationships and took an interest in their students' lives. The nature of the relationships and how they were utilized in the classroom differed by CQ teacher group as the high-CQ teachers more often accessed student perspectives and experiences, treating students as co-creators of knowledge, than the medium- and low-CQ groups. Similarly, the types of information about students and the topics that teachers discussed with students differed by CQ teacher group. Teachers in the high-CQ group sought out or took interest in the students' cultures, often going beyond topics of activities or media choices. Teachers in the high-CQ group also more frequently broached cultural, sociocultural, sociopolitical, or social justice topics with their

students, both drawing on student interest and experiences but also by infusing these topics into curriculum.

From the interviews and classroom observations, it appeared that teachers in the high-CQ group possessed a greater interest and awareness of the cultural dimensions of teaching and how culture influenced the schooling experience for their students. In many ways, their observed teaching practices converge with the teaching practices outlined by Ladson-Billings' culturally relevant pedagogy (1995; 2009). For example, teachers in the high-CQ group seemed to create more equitable learning relationships, value student knowledge, connect the learning to student experiences, and engage in critical inquiry more so than their medium- and low-CQ teaching colleagues. While teachers in the study did not enact all of the behaviors of culturally relevant pedagogy a surprising number of their observed practices aligned with Ladson-Billings' (1995; 2009) theory. Tables 8, 9, and 10 below are drawn from Ladson-Billings' (2009) book *The Dreamkeepers: Successful Teachers of African American Children* (2nd ed.) and reflect her words and characterizations of assimilationist, or "a teaching style that operates without regard to the students' particular cultural characteristics" (p. 24), and culturally relevant teachers. I have added a column to the tables briefly summarizing the findings from this study to illustrate the convergence with Ladson-Billings' theory and how teachers in the different CQ groups conceived and enacted the components of culturally relevant pedagogy.

Table 8

Culturally relevant teachers' conceptions of self and others (Ladson-Billings, 2009, p. 38) with observed high-CQ practices and teacher beliefs

Culturally relevant	Assimilationist	CQ teacher groups' beliefs and behaviors
Teacher sees herself as an artist, teaching as an art.	Teacher sees herself as a technician, teaching as a technical task.	Not observed at any levels.
Teacher sees herself as part of the community and teaching as giving back to the community, encourages students to do the same.	Teacher sees herself as an individual who may or may not be part of the community; she encourages achievement as a means to escape community.	High CQ teachers discussed how they saw responsibility in teaching in the school, viewed town as part of larger metropolitan community. Two medium-CQ teachers discussed what success looks like and what is expected outside of the community in areas like business. Low-CQ teachers did not raise these topics.
Teacher believes all students can succeed.	Teacher believes failure is inevitable for some.	Observed at all levels
Teacher helps students make connections between their community, national, and global identities.	Teacher homogenizes students into one "American" identity.	High-CQ teachers frequently help make connections between contexts; frequently discussed by teachers in interviews. Medium-CQ teachers provided mixed examples with some instances of connection-making combined with some assimilationist responses; uncertainty in how to execute in the classroom. Low-CQ teachers were not observed making these connections with their students and did not discuss this topic in interviews.
Teacher sees teaching as "pulling knowledge out"—like "mining."	Teacher sees teaching as "putting knowledge into"—like "banking."	High-CQ teachers frequently used open-ended questions, explicit connections to students' experiences and perspectives, centrality of

		student voices in classrooms; interview responses frequently included comments about the value and richness of student knowledge. Medium-CQ teachers asked fewer open-ended questions, and engaged in more teacher driven instruction. Low-CQ teachers almost exclusively used teacher driven instruction.

Table 9

Culturally relevant teachers' social relations (Ladson-Billings, 2009, p. 60) with observed high-CQ practices and teacher beliefs

Culturally relevant	Assimilationist	CQ teacher groups' beliefs and behaviors
Teacher-student relationship is fluid, humanely equitable, extends to interactions beyond the classroom and into the community.	Teacher-student relationship is fixed, tends to be hierarchical and limited to formal classroom roles.	High-CQ teachers discussed learning from and alongside their students; warm connections and informal interactions with students extended into other school spaces and activities as part of their teaching practice. Medium-CQ teachers built and maintained connections with students outside of the classroom and viewed relationship building as part of their teaching practice. Low-CQ teachers maintained more formal teacher-student relationships with students; however, their teaching connections with students did extend into outside of class activities such as tutoring or advising.

Teacher demonstrates a connectedness to all students.	Teacher demonstrates connections with individual students.	High- and medium-CQ teachers connected with all students in their classrooms Low-CQ teachers sometimes exhibited connections with certain groups of students or were more distant in their connections.
Teacher encourages a "community of learners."	Teacher encourages competitive achievement.	High-CQ teachers used more inclusive language about the classroom and encouraged learning from each other. Medium-CQ teachers at times allowed for collaborative learning or student sharing of work but more often controlled the learning. Low-CQ teachers allowed some collaborative work but more typically focused on individual work.
Teacher encourages students to learn collaboratively. Students are expected to teach each other and be responsible for each other.	Teacher encourages students to learn individually, in isolation.	High-CQ teachers believed that students possessed valuable information to share with their classmates. Medium-CQ teachers more typically controlled instruction but in some cases explicitly addressed community and responsibility. Low-CQ teachers at times used group work with distinct roles but many times students worked independently.

Table 10

Culturally relevant teachers' conceptions of knowledge (Ladson-Billings, 2009, p. 89) with observed high-CQ practices and teacher beliefs

Culturally relevant	Assimilationist	CQ teacher groups' beliefs and behaviors
Knowledge is continuously recreated, recycled, and shared by teachers and students. It is not static or unchanging.	Knowledge is static and is passed in one direction, from teacher to student.	High-CQ teachers discussed learning alongside their students and allowed students to drive content. Medium-CQ teachers more typically were the gatekeepers of knowledge and structured the learning. Low-CQ teachers typically were the source of knowledge for their students and the teacher was responsible for presenting content for students to learn.
Knowledge is viewed critically.	Knowledge is viewed as infallible.	High-CQ teachers more frequently critiqued knowledge or discussed other interpretations or ways of knowing. Medium- and low-CQ teachers seldom examined content or knowledge critically or examined other perspectives.
Teacher is passionate about content.	Teachers is detached and neutral about content.	High-, medium-, and low-CQ teachers all exhibited engagement and passion in their subjects.
Teacher helps students develop necessary skills.	Teacher expects students to demonstrate prerequisite skills.	High-, medium, and low-CQ teachers all approached learning in their classrooms in developmental stages.
Teacher sees excellence as a complex standard that may involve some postulates but takes student diversity and individual differences into account.	Teacher sees excellence as a postulate that exists independently from student diversity or individual differences.	Not observed or discussed in interviews in any CQ teacher group.

From the tables, it can be potentially surmised that the high-CQ teacher practices and beliefs appear to fit more in the culturally relevant pedagogy categories especially in the critical evaluation of knowledge, fluid relationships, perceptions of knowledge, and mining students' knowledge. As seen in the data in the previous chapters, the beliefs and practices of medium-CQ teachers comprised a range of more culturally relevant and culturally intelligent practices and also assimilationist practices, sometimes within the same individual. The beliefs and practices of the low-CQ group, however, fell more within the assimilationist category. This should not be read as that the teachers in the medium- or low-CQ groups did not care for their students, present high-quality lessons, or work extremely hard. The teachers in the medium- and low-CQ groups many times connected with students outside of classrooms spaces, believed in their students' abilities, and built compassionate relationships with the students. Instead, what might be surmised is that CQ addresses the cultural aspects of teaching are areas for growth rather than a blanket evaluation of pedagogical practices.

Research Question 2: How do teachers at different levels of CQ development enact intercultural capabilities?

Similar to their culturally relevant teaching practices, teachers in the high-, medium-, and low-CQ groups enacted intercultural capabilities differently. Teachers in this study displayed different motivations for and levels of confidence in working with culturally diverse student populations, and expressed a range of awareness in terms of their own and their students' cultural perspectives. These differences between groups appeared to correspond with the teachers' CQ assessment scores, with teachers in the high-CQ group enacting more nuanced intercultural capabilities than their peers in the medium- and low-CQ groups. The assessment did seem to discriminate teachers who possessed more awareness and drive to work in intercultural spaces with culturally diverse student populations. The differences between medium- and low-CQ assessment scores were not always as marked as between high- and medium-CQ or high- and

low-CQ. Less difference existed between the medium- and low-CQ teacher groups potentially due to small sample size and self-selection of individuals interested in participating in this type of study.

Additionally, while the medium-CQ group did enact more nuanced intercultural capabilities than their low-CQ colleagues, this group also the medium-CQ group also displayed capabilities that were at times more like their high-CQ peers and other times like their low-CQ co-workers. The variation within the medium-CQ group in this study could be attributed to the greater range of potential capabilities owing to their scores falling within two quartiles of responses as opposed to the high- and low-CQ groups who clustered into the top and lower quartiles respectively. An additional explanation may be in that the medium-CQ group as bounded by this study's parameters stipulated that they may have a single CQ dimension score in the top quartile, at least two other scores in the middle two quartiles, and an allowance for a single score in the lowest quartile. In the medium-CQ teacher group, one teacher did have a CQ Knowledge score in the top quartile and a CQ Action score in the lowest quartile. Two of their peers also had a single dimension score in the highest quartiles, one in CQ Drive the other in CQ Strategy, with the rest of their scores in the middle two quartiles. One final teacher did score themselves within the lowest quartile in CQ Drive with the remainder of their scores in the middle two quartiles. Taken as a group, however, the beliefs and manifested behaviors of the medium-CQ teacher group illustrate the developmental nature of intercultural capabilities as the medium-CQ group teachers were in the process of incubating higher-CQ capabilities.

In terms of the intercultural capabilities of teachers, there were differences between groups. The table below contains a summary of the major findings from the interviews and the observations. While the differences between groups appear to follow the participants' self-reported CQ assessment scores, it needs to be noted that the CQ construct did not explain or

account for all the capabilities that the teachers exhibited. A summary discussion of the convergent and divergent beliefs and practices follows this summary table of teacher capabilities.

Table 11

Intercultural capabilities of high-, medium-, and low-CQ teacher groups

High CQ • High intrinsic motivation and interest to work in intercultural environments; seek out new experiences. • High comfort with and tolerance for ambiguity—not knowing or being the expert. • Ethnorelativistic—allow for multiple perspectives and aware of different perspectives and experiences exist without judgment. • Interest in social justice and sociocultural issues. • High confidence in new intercultural situations and how to talk about culture within the classroom. • Sophisticated understanding of cultural issues as they relate to teaching. • Strong sense of their own positionality.
Medium CQ • Less motivation and interest in intercultural environments or experiences. • Range of ethnocentric and ethnorelativistic outlooks—awareness of other perspectives, but may focus on commonality or minimize importance of culture, may have comfort with certain groups (may also have knowledge of certain groups and their experiences), may not have awareness of own positionality. • Less interest in cultural or social justice issues. • Less efficacy or confidence in broaching intercultural issues.
Low CQ • Low knowledge about culture and cultural issues. • Little to no interest in new cultural experiences or environments. • Ethnocentric outlook—may not be aware of other perspectives than their own or may minimize differences. • Low awareness of cultural dimensions of teaching and positionality.

The CQ construct and assessment instrument did appear to capture teachers' motivation to work with culturally diverse student populations and their awareness of both their own perspectives and the perspectives of their students. The assessment scores in these areas appeared to fit well with the teachers' own descriptions during the interviews. The assessment and construct did not capture how teachers understood their practices, the role of culture in the classroom, and the types of knowledge teachers sought from their students. Additionally, what

teachers did in the classroom was not necessarily reflected in the CQ construct or its assessment measure. A summary of the convergent findings is included in the tables below.

Table 12

Convergence with CQ, Drive

Convergent—CQ Drive
CQ Drive: Intrinsic interest. High CQ teachers found enjoyment and curiosity about cultural differences: • Teachers sought out schools with diverse student populations; • Teachers found student cultural experiences and perspectives compelling; some found academic interest in culture. Medium-CQ teachers were less interested in the cultural aspects of teaching and did not state an interest in culturally diverse student populations as a driving force behind their school selection. These teachers sought common ground with their students and typically did not address cultural issues compared to their high-CQ teaching peers. Low-CQ teachers cited school location and professional concerns such as seniority for selecting or remaining in the school.
CQ Drive: Self-efficacy. High-CQ teachers described comfort and confidence in navigating new intercultural situations; comfort with ambiguity. Medium-CQ teachers expressed more uncertainty about how to address culture in the classroom. Culture affected schooling, but how to incorporate the students' experiences or address topics were less clear. Low-CQ teachers had questions about how culture fit into teaching, diminished its importance, or did not see a way to incorporate student culture into the classroom.
Analysis. CQ construct translates well to how teachers explained their motivations and confidence in working with culturally diverse student populations. Assessment seemed to reflect levels of interest between groups and matched interview responses.

Table 13

Convergence with CQ, Strategy

Convergent: CQ Strategy
CQ Strategy: Awareness. High-CQ teachers described their understanding of different perspectives and experiences that students bring to school each day and how these affect learning. Medium-CQ teachers acknowledged the cultural differences in their students, but how these differences might affect school experiences did not emerge. Low-CQ teachers only superficially described cultural differences but the effects and implications on learning and classroom teaching did not emerge.
Analysis. Teachers described awareness similar to the construct in their interviews. The high-CQ groups expressed a greater sensitivity to the lives and experiences of their students compared to the other groups. Scores were consistent with interview responses for Awareness. Teachers across the groups did not specifically talk about revising their assumptions but did display at the high-CQ level more fluid understandings of students and allowed for their understanding to be changed. Teachers across all the CQ groups did not discuss checking or adjusting understanding frequently. No teachers discussed planning for encounters.

The CQ construct and assessment instrument did appear to capture teachers' motivation to work with culturally diverse student populations and their awareness of both their own perspectives and the perspectives of their students. The assessment scores in these areas appeared to fit well with the teachers' own descriptions during the interviews. The CQ assessment and construct did not provide a means of describing how teachers understood their practices, the role of culture in the classroom, and the types of knowledge teachers sought from their students. Additionally, what teachers did in the classroom was not necessarily reflected in the CQ construct or its assessment measure.

CQ Knowledge and its sub-dimensions did not seem to reflect what teachers knew about the diverse student populations in their classroom, nor did the sub-dimensions capture how teachers understood the role of culture in teaching. What the teachers possessed instead were

detailed knowledge webs of individual student interests and home lives, as well as the elements that would motivate students to learn. Teachers actively sought this information in order to make connections with students to leverage for later learning opportunities. While most of the teachers in the high-CQ group rated themselves higher in terms of CQ Knowledge, and there did appear to be distinct breaks in the teacher groups along this dimension, it may have been due to a general interest or familiarity with cultural concepts rather than an indicator or connection to their classroom practices. Teachers actions to connect with students did not match CQ conceptualization of action nor did the assessment reflect how teachers saw their actions in the classroom. What is also missing from the CQ construct are aspects that address how teachers engage with students to help them understand themselves and the role of culture in society. A summary of the divergent findings is included in the table below.

Table 14

Divergence with CQ, Knowledge

Divergent: CQ Knowledge
CQ Knowledge: All sub-dimensions. High CQ teachers scored higher than other groups but there was considerable variation in what teachers knew. • In the interviews, teachers described their knowledge differently than CQ construct. • Knowledge came from the students about: interests, family, cultural traditions. Knowledge was gained from the students and allowed for flexibility in understanding. • Knowledge that teachers possessed about students did not match CQ's sub-dimensions of business, values and norms, sociolinguistic, and leadership.
Analysis. High-CQ group teachers scores were considerably higher than the other two groups. However, their knowledge was described differently and most closely resembled the values and norms sub-dimension. Language teachers scored higher in the sociolinguistic sub-dimension. Potential to develop in situ questions to match what teachers know about or want to know about their students. Teachers knowledge (ex: students home lives) is not necessarily reflected in the assessment. Assessment scores reflect the knowledge of teacher groups—and in the case of TF, their extensive online reading (however, missed PM's reading of sociology, LS's race and pedagogy reading). Does not necessarily reflect what teachers know and may be indicating other items or topics.

Table 15

Divergence with CQ, Action

Divergent: CQ Action
CQ Action: all sub-dimensions. Teachers did not describe their classroom behaviors, nor were their behaviors observed in ways that matched the CQ construct. • High-CQ group teacher whose behaviors most closely resembled the constructs conceptualization had one of the lowest scores in their group across the sub-dimensions. • Teachers who lived abroad scored higher in this dimension .
Analysis. Teachers may not see their actions as intercultural. Currently, the preparation of teachers does not include intercultural competence scholarship or training so may not be familiar with the conceptualization nor see their work as intercultural. Their classrooms may be envisioned as learning or pedagogical spaces as opposed to intercultural spaces. The teachers may see that they are working with a student as opposed to an experience in a study abroad program.

The findings from this study suggest that CQ may have the potential to explain teachers' actions with culturally diverse student populations. The robust empirical research base and predictive validity of the construct and its assessment measures in other non-educational contexts may indicate that CQ has the potential to explain how teachers navigate their classrooms and schools. However, the current conceptualization and assessment items are not as meaningful to educators and there is a need to create an in situ version which addresses the capabilities teachers need to navigate the intercultural spaces of schools. Teachers did not see their actions with students through an intercultural lens or frame, nor did they seek out and the types of student information described in CQ Knowledge or its sub-dimensions. As seen in the interviews, no teachers described how they altered their speech or behaviors to match their students. Similarly, only a small number of teachers changed their speech or non-verbal behaviors in the classroom lending an interpretation to be that these actions were based upon the personal preferences or experiences of these teachers rather than a uniform set of behaviors. Teachers instead, especially in the high-CQ group, used informal conversations with students to foster relationships and develop social capital with their students. Further research into how teachers use their language

and informal behaviors, potentially from scholars in the fields of linguistics and proxemics, will be needed in order to understand these behaviors and if there are any underlying components or patterns present.

The findings about how teachers built these relationships complements the affective elements of teaching, specifically the literature on teacher student relationships (TSRs) and the effects of these relationships on engagement and motivation of students (Roorda, Koomen, Spilt, & Oort, 2011; Pianta, Hamre, & Allen, 2012; Wentzel, 2012). Within these relationships, teachers support student well-being, develop connections, demonstrate care, and provide equitable learning environments (Wentzel, 2012). The findings in this study address the cultural aspects of TSRs in two ways: (1) by illustrating the way in which teachers develop relationships with their students, and (2) demonstrating how teachers use the relationships to incorporate student interests and sociocultural issues. In this study, medium- and low-CQ teachers built interpersonal connections with students but ignored student culture within the context of the relationship. Within the medium- and low-CQ teachers' classrooms sociocultural topics were not raised, nor were student perspectives and experiences included in as a vital resource in learning. High-CQ teachers however acknowledged the cultural dimensions of the classroom and TSRs and engaged alongside their students in explorations sociocultural issues and critical inquiry. In this study's findings, the informal relationship was not enough to create an equitable learning environment but needed to be paired with intercultural capabilities and a willingness to engage sociocultural issues. By showing how the intercultural capabilities of teachers were manifested in informal relationship building with students, this study makes the connection between TSRs and equitable environments.

Research Question 3: To what extent does the construct of CQ align with the beliefs and practices of effective culturally relevant teachers?

The CQ construct and assessment instrument did align well with teachers' motivations and their awareness of both themselves and their students' perspectives. Teacher interview responses about topics such as why they selected to work in their current setting, how they understood students' cultures and identities, and how they understood the knowledge and experiences students brought to school each day appeared to match the teachers' self-reported CQ assessment scores. Unlike teachers in the medium- and low-CQ groups, teachers in the high-CQ teacher group reported that they had an awareness that their perspective was one of many legitimate perspectives in the classroom and that their students brought, as one teacher articulated it, "universes of meaning" (UM interview, October 9, 2015) with them to school each day. These high-CQ group teachers also responded that they strove to create relevant lessons that connected to student lives that also promoted critical inquiry.

In the classroom I observed the high-CQ teachers express interest in student perspectives, share in the learning experiences with their students, and allowed student voices to predominate in the classrooms. While the motivations and awareness of teachers was accounted for in the CQ construct and assessment measure, how this motivation and awareness translated into pedagogy is not currently addressed. Behaviors for facilitating the exploration of multiple perspectives or utilizing student experiences to teach about cultural or social justice issues are not at present within CQ's conceptualization or assessment of knowledge and action. While CQ may have the potential to address how teachers understand the cultural dimensions of teaching and students' experiences in schools, the sub-dimension's emphasis on broad topics such as economic and legal systems, rules of languages, and art do not necessarily fit with the knowledge that teachers need to help them connect with students and structure learning environments which honor their students' cultures and facilitate critical inquiry. While the current CQ construct addresses

important categories to understand the cultural dimensions of interactions, more specific or *in situ* capabilities would explain the types of knowledge that teachers use in navigating the intercultural spaces of their classrooms.

High-CQ teachers developed complex knowledge webs and nuanced understanding about the cultural experiences of their students which aligned with the types of dispositions raised by scholars in cultural relevant pedagogy (Gay, 2013; Ladson-Billings, 2014; Paris, 2012; Villegas, 2007). Many of the high-CQ group teachers knew about topics such as the gendered expectations for their students, how religion affected teacher-student interactions, the economic demands on students to contribute to their families, and how socioeconomic status affects communication with adults in the students' lives as well as access to resources and materials for learning. Teachers in the high-CQ group understood that their students experience obstacles to their schooling and learning but often saw beyond the obstacles and incorporated student insights into the classroom.

Similarly, teachers' actions within the context of their classrooms with culturally diverse student populations were not captured by the current CQ construct. While only a couple of teachers modified their behaviors or speech in the manner in which the construct currently conceptualizes intercultural acts, most of the teachers modified the content of their speech to more informal topics such as student interests and utilized opportunities to build relationships to develop social capital in their classrooms. Some teachers did use proximity but these actions were in the context of ENVoY training which is focused on classroom management and does not take into account the intercultural dimensions of the classroom, behavior, and interactions between teachers and students. While the current CQ construct possesses general categories to help navigate intercultural interactions, the construct does specifically not address how teachers in this context interact with their students.

What may be worth considering in terms of action is that the high-CQ teachers did not rate themselves highly in terms of CQ Action-speech acts on the CQ assessment. In fact, the teacher whom I observed as being most facile at code switching or changing their verbal behaviors to match their students rated themselves low across the board in terms of CQ Action. What might account for this disconnect between self-assessment and observed action could be that teachers did not perceive changing verbal behavior as being a part of their practice as stipulated in the assessment. Instead, and this coincides with the interview and observed data, teachers used their verbal behaviors to establish relationships with their students. In other words, verbal behaviors were viewed by teachers, and then enacted, to develop social capital with their students. Instead of being seen as an act of intercultural navigation, teachers may have seen their verbal behaviors as a part of a larger relationship building strategy linked to pedagogy.

CQ is new in the field of education and teachers may not possess the lens through which to see their work with students as intercultural interactions and their classrooms as intercultural spaces. Within this study, teachers did not connect their outside intercultural experiences necessarily with their classroom practices. Culturally relevant pedagogy includes an element of cultural competence, but too often in practice this is essentialized, limited, or reduced to materials or knowledge about student groups (Sleeter, 2012). What the cultural competence looks like, much less how it is developed is not currently part of the teacher preparation programming. Teachers as such are not necessarily thinking about their interactions along the lines of intercultural or cross-cultural navigation. Instead they may be seeing their interactions with students as part of teaching or pedagogy. The CQ elements might be present in their beliefs and thinking as the teachers may be driven, possess knowledge about students and their cultural groups, they may have an awareness and behaviors, but they have not pulled these pieces together into a coherent whole that would allow them to explain to others or replicate their process for a mentee.

Research Question 4: What is the nature of the relationship between CQ and culturally relevant pedagogy?

CQ may be viewed as an undergirding factor in culturally relevant pedagogy as the construct and assessment seem to match how teachers understand and conceptualize their motivations and awareness of their students' experiences and perspectives. The CQ assessment scores appeared to match the interview responses across all three of the sample groups with marked differences between how the high-, medium- and low-CQ teachers understand their students, teaching, and awareness of themselves. Teachers in the high-CQ group described greater levels of motivation to work with culturally diverse populations and described an interest in learning about the perspectives and experiences of their students more so than teachers in the medium- and low-CQ groups. Teachers in the high-CQ group also described greater awareness of their own limited perspectives and the perspectives and experiences that their students bring to the classroom than the two other teachers groups. High CQ teachers also expressed greater confidence in how to address these multiple perspectives in the classroom. Second, these teachers who evaluated themselves at higher levels on the CQ assessment appeared to enact more culturally relevant teaching practices in the classroom. The teachers in the high-CQ group asked more open-ended questions, incorporated more student voices and experiences into lessons, learned alongside their students, more frequently asked their students to be critical and to tie students' own experiences into the course content. These teachers also broached cultural issues or social justice issues in ways that were not present in the classrooms of the medium- and low-CQ groups.

The ability of teachers to enact culturally relevant teaching practices did not appear to be solely the result of trusting teacher-student relationships or factual knowledge of cultural issues. All teachers, for example, in the high- and medium-CQ groups actively built relationships with students which they later leveraged for learning. Teachers who possessed knowledge about

culture or cultural topics did not necessarily enact more culturally relevant practices, as some of the medium-CQ group teachers expressed an uncertainty about how to utilize this knowledge in the classroom even though they possessed it. Additionally, some teachers in the high-CQ group and some in the medium-CQ group were skeptical of generalized and static knowledge about student populations as opposed to more fluid and dynamic knowledge of individual students. What this may suggest is that teacher comfort, confidence, interest and willingness to engage in explorations of sociocultural issues combined with an awareness that students possess valid knowledge to be drawn out of them and integrated into the learning are undergirding capabilities to teachers' enactment of culturally relevant pedagogical practices. In this way, teachers that possess more drive and awareness may potentially have the capability to engage in culturally relevant pedagogy. These intercultural capabilities provide the potential to meet calls from scholars such as Ladson-Billings (2014) to utilize students' experiences, interests and voices in the classroom and to critically evaluate materials and topics.

What this preliminary research may point to is how CQ may help identify and explain the undergirding factors of Ladson-Billings (1995; 2009) cultural competence component of culturally relevant pedagogy. In this way, CQ may potentially provide a way for teachers and teacher educators to conceptualize and evaluate their own capabilities to develop and enact culturally relevant practices. Additionally, this study may also address Cushner's (2011) assertion that teachers and teacher candidates need to:

> understand how culture influences their own perspectives of the world as well as how other people have encountered difference. This foundation must be in place before people will ever recognize the need for change, have the skills needed to collaborate with people different from themselves, and then confront the obstacles necessary to restructure our social institutions to the degree necessary to achieve full social justice (p. 605).

CQ may provide a way to understand, assess, and provide a developmental pathway for the readiness of teachers and teacher candidates to be receptive to professional development and coursework on topics such as racial equity and culturally relevant pedagogy. The difference between teachers' interview responses and their observed classroom behaviors may indicate that the teachers whose CQ scores are in the higher quartiles enact more culturally relevant practices.

While not all the high-CQ group teachers enacted all of the components of culturally relevant pedagogy, in particular the critical evaluation of current issues such as the police shooting that happened close to the district, the high-CQ teachers raised concern about their positionality, power dynamics, and credibility to engage in issues like the Black Lives Matter protests. The teachers demonstrated even in their hesitancy an awareness of the complexity and their own situatedness in the complex set of issues surrounding the shooting and the ability to enact other culturally relevant pedagogical practices. In this way it can be interpreted, as Cushner (2011) suggests, that these teachers already have the receptivity and capability to enter into a dialogue with students about these issues. What these teachers may need is administrative support, mentoring or peer teaching examples to broach these topics with students. For the teachers in the high-CQ group it is more an issue of fine tuning or modeling a practice to a receptive and experienced practitioner instead of unpacking the critical event and also coaching the teacher on how to teach an issue such as the Black Lives Matter protest. The high-CQ group teachers already possess the interest and capabilities needed to engage their students in social justice inquiry.

The findings in this study may show that CQ is able to addresses the motivational and awareness components of how teachers navigate the complex acts of teaching and navigating the culturally diverse spaces of schools. What CQ does not currently address is the specific knowledge nor the actions that teachers utilize in these spaces. However, the behaviors and practices observed, in particular how teachers whose ratings placed them in the high-CQ group,

may indicate that CQ is effective in determining which teachers may have the capabilities necessary to enact culturally relevant teaching practices. What this may indicate is that future iterations of CQ that take into account the in situ capabilities of teachers may present a compelling tool to help teachers and better understand and develop their own capabilities to effectively teach culturally diverse student populations. For teacher educators, professional development and licensure programs, these findings might suggest the potential of CQ to be used for customized trainings based on the readiness of candidates or in-service teachers to engage with culturally relevant topics.

There are other intercultural measures and models available to schools, and there is research on teachers and schools using the Intercultural Development Inventory (IDI) in particular. This scholarship on teachers is mostly quantitative and either reports on teachers' intercultural assessment scores or a change after an intervention (Bayles, 2009; DeJaeghere & Cao, 2009; DeJaeghere & Zhao, 2008; Mahon, 2006; Westrick & Yuen, 2007). What the studies fail to do is address how teachers' intercultural competence assessment scores are manifested in their classroom practices. This study takes the step of examining the beliefs and practices of teachers at different levels of intercultural competence utilizing CQ. However, these measures do not have the same robust empirical base as CQ (Ang, Leung, & Tan, 2014; Matsumoto & Hwang, 2013). Additionally, the other intercultural competence frameworks, like the IDI, typically focus on mindsets or beliefs of individuals without addressing other facets such as motivation or actions. Research on the intercultural competence capabilities of teachers has not as of the time of this study addressed what teachers do in the classroom nor how they understand their teaching practices and interactions with students. While CQ in its current conceptualization does not match the classroom actions and teachers' typical knowledge requirements, its research base, multifaceted intelligence construct presents it as a compelling tool to help teachers develop the capabilities to teach their culturally diverse student populations. Refinements to the construct to

reflect the in situ actions and knowledge will be needed to fit CQ better to the beliefs and practices of classroom teachers. This study may contribute to this application as it identifies a connection between teachers' assessed CQ capabilities and their beliefs, as well as opening avenues for later research into teacher actions and further developed in situ capabilities.

The teachers' interview responses, assessment data, and practices may present a compelling case for a new model utilizing CQ in conjunction with current theories of culturally relevant pedagogy (Gay, 2012; Ladson-Billings, 2014; Paris, 2012). The results from this study may potentially indicate a relationship between CQ and culturally relevant pedagogy with CQ as the undergirding framework from which to explain how teachers can navigate cultural difference in their classroom as well as how CQ Drive and CQ Strategy may form requisite capabilities to facilitate the enactment of culturally relevant pedagogy in the classroom. From this study's findings, a proposed model that illustrates the intersectionality of CQ to culturally relevant teaching practices is included below. In CQ Drive's sub-dimensions of intrinsic interest and self-efficacy combined with CQ Strategy's sub-dimension of self-awareness form the undergirding intercultural capabilities needed to enact culturally relevant teaching practices. The dashed line, titled the threshold of manifestation, posits that once teachers possess or develop the undergirding capabilities then these capabilities are manifested in the teachers' culturally relevant pedagogical practices. In this study the high CQ teacher group's culturally relevant teaching practices consisted of more student voices in the classroom, attempts to address students' interests, more

equitable relationships between teachers and students, and critical evaluation or exploration of sociocultural and social justice issues.

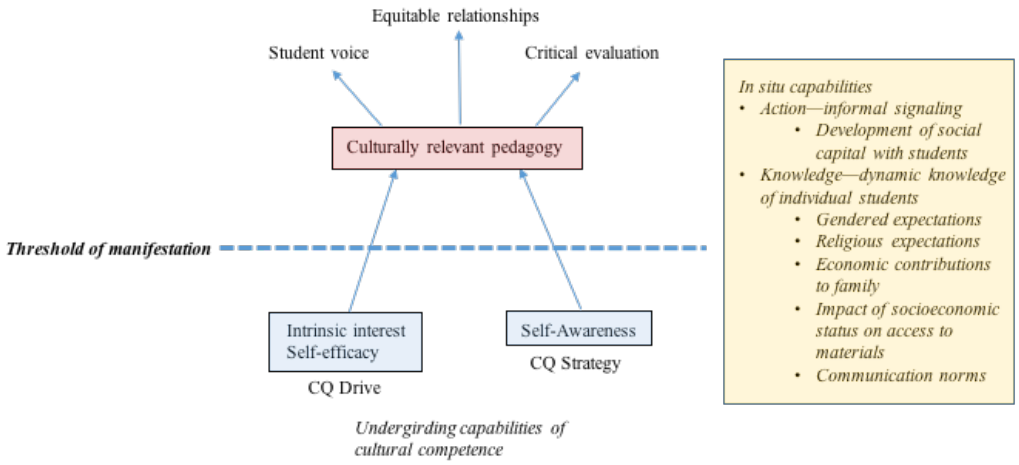

Figure 23. CQ teaching practices model.

In this proposed model, teachers' intrinsic drive to learn about students' perspectives and experiences, coupled with their motivation to challenge their own preconceived notions may be viewed as a necessary first step in establishing receptivity to students' experiences and their integration into classroom learning. This intrinsic motivation may also play a role in teachers' awareness that their own perspective is not the only legitimate one in the classroom and an understanding that their knowledge and experiences are limited. This self-awareness may potentially coincide with teachers' comfort with ambiguity and feelings of confidence or self-efficacy and facilitate their inclusion of other perspectives into the classroom. Self-awareness combined with the drive to learn about students and receptivity to have one's thinking challenged may predispose teachers to appreciate the validity of student experiences, knowledge, and perspectives. This disposition combined with awareness of student perspectives may form the base from which culturally relevant teaching practices can be enacted. Further research into how teachers conceptualize the interplay of factors will be needed in order to better understand the workings behind their capabilities and approach to student learning.

Teachers' interest and awareness of their students' experiences and perspectives may also combine with teachers' interest in cultural issues to facilitate classroom critical inquiry into sociocultural and social justice issues. In essence, the CQ dimensions of Drive and Strategy may be viewed in this model as the undergirding capabilities to the enactment of culturally relevant teaching practices. From the data gathered on teachers in this study, two assertions may be made. First, teachers who assess themselves higher on the CQ assessment may enact culturally relevant pedagogical practices to a greater degree than teachers who assess their capabilities lower on the CQ assessment instrument. Teachers who assessed their capabilities higher on the CQ scale expressed more interest and enjoyment in cultural issues and experiences as well as a greater awareness of other perspectives. In the classroom, these teachers were observed enacting more culturally relevant teaching practices. While teachers in the lower CQ groups engaged in some components of culturally relevant pedagogy, these teachers' practices were not as prevalent nor were their understandings of the cultural aspects of pedagogy as nuanced or developed as the high-CQ group. Second, what this may suggest is that CQ could fill a current gap in culturally relevant pedagogy scholarship by providing a way to explain how teachers develop and manifest the cultural competence needed to successfully teach their culturally diverse student populations. CQ may potentially be a complement to culturally relevant pedagogy as it may fit the cultural competence component in Ladson-Billings (1995; 2009) theory with an additional means to assess and conceptualize this competence in teaching.

While culturally relevant pedagogical practices may potentially be seen as in situ capabilities of teachers, there were additional capabilities gleaned from the classroom observations. These capabilities, indicated in the box on the right side of Figure 23, lie outside of the threshold of manifestation and may or may not be contingent upon teachers' motivation and awareness. Teachers in this study were observed using informal signals to build social capital with students and possessed rich contextual knowledge of their students' lives and how outside

forces or conditions may affect student learning. Teachers in the higher CQ groups tended to exhibit more of these in situ capabilities but additional research is needed in order to understand the extent to which this may be differentiated in teachers. Additional further investigation and potential refinement of the CQ construct to include additional in situ teacher capabilities are also needed in order to understand their role in teaching, their relationship to culturally relevant practices, how teachers and students make meaning of them in their classrooms, and how the capabilities may affect outcomes such as student learning and achievement.

Limitations

Despite the study's congruent findings between its quantitative and qualitative data and potential alignment with existing bodies research and there are several limitations to the study. First, the study was conducted within a single school, thus potentially limiting the generalizability and application of the findings into other contexts. Future research in other sites is needed at this point to further corroborate the findings before more a nuanced and complex understanding about CQ's applicability to education and its contribution to culturally relevant pedagogy can be made. Second, as the researcher, I did bring both a classroom educator perspective as well as experience and certifications in intercultural competence assessment, in particular in CQ. My experiences as classroom teacher may have allowed collegial conversations with teachers not accorded to an outsider in the profession as well as an insider perspective on the workings of classrooms and schools, but may also have colored what I observed through a sympathetic pedagogical gaze. Similarly, my knowledge and experience with CQ as a construct and its assessment measures may have predisposed me to view behaviors through a pre-configured filter. As such, my experience as a classroom teacher may have prevented me from understanding how students experienced the teaching by the high-, medium-, and low-CQ teachers. As a teacher I could sympathetically understand classroom experiences from the teacher stance but potentially misinterpret student reactions leaving me to hypothesize about the engagement and trust in the

classrooms I observed. Student voices and experiences are absent from this study and their meaning is needed to better understand how the teaching was received. Capturing this voice will be critical for future research.

My race, gender, socioeconomic status, position as a researcher representing a university may also have potentially limited both what I could understand in terms of the experiences of the students and how teachers' pedagogical and intercultural practices were received as well as what the teachers wished to convey in my presence. These biases may have influenced the study's findings, as is true with all qualitative research. To mitigate the effects of researcher bias, this study included measures such as a mid-study evaluation, member checks with participants and a data audit in order to confirm the trustworthiness of the data, assertions, and the authenticity of the participants' perspectives and experiences. The duration and frequency of the observations may have also helped limit the effects of social desirability or Hawthorne effect as teachers and students became accustomed to the visitor in their shared classroom spaces.

CQ as a construct and in its assessment instruments does not assess all the components of the complex act of teaching. While this study's findings suggest that CQ may align with how teachers navigate their culturally diverse classroom spaces and potentially serve as an undergirding capability for the enactment of culturally relevant pedagogy, CQ is not a measure of all that teachers do in their classrooms. In particular, the construct and its assessments do not incorporate facets of teaching such as creativity, emotional resilience, compassion towards students, content knowledge nor pedagogical skills need to create learning experiences or evaluate student knowledge. CQ may be viewed as a complement to other fields of study in teaching, such as culturally relevant pedagogy and teacher dispositions, but it cannot stand alone as a means to understand, explain, or measure the multifaceted act of teaching nor teachers' suitability or effectiveness in the classroom.

Similarly, while scholars within culturally relevant pedagogy (Gay, 2002; Ladson-Billings 2009; Nieto, 2010) reported on how teachers leveraged students' culture to improve learning outcomes, research on CQ and teaching does not currently address achievement. The use of CQ within the field of education is very new at the time of this study, and the construct was not originally designed for use within education. While this study's findings may indicate an alignment of high-CQ teachers' practices with culturally relevant pedagogy, at this point additional research is needed to determine if improving teachers' intercultural capabilities will positively affect student achievement.

Finally, while this study's findings indicate that CQ effectively captures teachers motivations and awareness of the cultural aspects in the classrooms, it does not address social justice, a vitally important aspect of teaching within the US educational context. CQ was initially created within an international business context to address the dynamics of intercultural teams (Earley & Ang, 2003). While rigorous in their design early validation studies examined populations outside of K-12 education such as business students and expatriate managers (Ang, Van Dyne, Koh, Ng, Templer, Tay, & Chandrasekar, 2007; Van Dyne, Ang, & Koh, 2008). While the findings of these studies are robust and the construct has high predictive validity (Leung, Ang, & Tan, 2014; Matsumoto & Hwang, 2013), US education is a context in which forces such as racialized inequality and socioeconomic inequality loom large in classrooms, schools and the communities they serve, and the promise of an American public school education. In this specific education context, teachers are expected to possess a nuanced understanding of the complex social and historical forces infusing the meanings and experiences of cultural difference in the US. This understanding is then to be leveraged to create learning experiences to help students understand and engage critically with issues in their communities and nation (Banks, Cochran-Smith, Moll, Richert, Zeichner, LePage, Darling-Hammond, Duffy, &

McDonald, 2005; Nieto, 2010). At this point, CQ does not address social justice or equity in the sub-dimensions of either CQ Strategy or CQ Knowledge.

Implications

The study's findings may suggest different approaches for the preparation of teachers to navigate their culturally diverse student populations and offers a complement to the current methods in the field. The study's findings have implications in several areas: (1) Ladson-Billings' conceptualization of culturally relevant pedagogy; (2) pre-service teacher candidate preparation and professional development; (3) the development of in situ CQ capabilities for teachers; and (4) policy. This section first addresses the specific recommendations for preparing teachers to navigate cultural differences in their classroom proposed by Ladson-Billings' (2009) and how CQ and the study's findings are situated within these recommendations. The next topic within this section builds upon Ladson-Billings' recommendations and addresses address the study's findings in relation to the preparation of pre-service teachers and in-service professional development. The third topic addresses the potential in situ capabilities that emerged over the course of this study. Lastly, the final sub-section addresses the potential policy implications of the study's findings as they relate to teacher licensure and academic achievement.

Ladson-Billings' (2009) recommendations and CQ. Following the analysis and interpretations of their study's observations, Ladson-Billings (2009) provided suggestions for identifying and preparing teachers to teach in a culturally relevant manner and a "vision of a culturally relevant school" (p. 139) which are worth examining in light of this study's findings. Some of Ladson-Billings' recommendations are beyond the scope of this study and involve professional development, building level decisions for allocation of teachers' time, and licensure program requirements. However, several of their points intersect with this study's findings potentially indicating additional complementarity or intersections between CQ and culturally relevant pedagogy.

Ladson-Billings (1995; 2009) proposed several ways in which to alter the practices of teachers so they may better address the pedagogical needs of their culturally diverse students. In their first suggestion, Ladson-Billings (1995; 2009) posited that schools should "recruit teacher candidates who have expressed an interest and desire to work with African-American students" (p. 143) and cites the dilemma of the demographic imperative and the need to recruit more teachers of color. While some scholars are resigned to the fact that the teaching pool is overwhelmingly white and will have to work with what there is available stating "[we] must also look for more innovative and nontraditional ways to bring the right people into teaching" (p. 143). Ladson-Billings suggests that interested candidates need to commit, as a precondition for admission into teaching programs, to working in a "predominantly African American school for a specified period of time" (p. 143). This suggestion meshed with the findings in this study on teacher motivation and intrinsic interest to work in culturally diverse schools as the findings from this study may indicate that CQ could be a way to help students and programs work with teacher candidates to better understand their own motivations and differentiate professional development to address these needs. Additionally, the quantitative data, the interview responses, and classroom observations indicate that CQ could be an innovative method to identify candidates that are best suited to enact culturally relevant pedagogy and effectively teach culturally diverse student populations. While using the assessment for hiring decisions is fraught with complicating factors such as screening out candidates with other pedagogical skills, a preferred stance is to utilize the self-reported data to identify areas of strength or development for candidates, their supervisors, and instructors. Without this readiness and understanding, committing students to teaching placements that are not suited to their capabilities or where the students may not be best served does not seem like a viable or advisable option.

Second, Ladson-Billings suggests that professional development be revised and critiques current courses and professional development that "focus only superficially on material culture"

(p. 143) stating that these programs lack nuance and depth needed to really address how culture unfolds in teaching and learning interactions. Additionally, Ladson-Billings suggests that teacher candidates spend time understanding their own culture and how that affects their practices in the classroom, a suggestion echoed by additional scholars (Banks, et al., 2005; Gay, 2013; Neito, 2010; Whipp, 2013). The teachers in the high-CQ group possessed a highly nuanced understanding of how their own culture, their limited perspective, and how students' experiences and perspectives affected learning and their experience in school. Teachers in the medium- and low-CQ groups did not express the same understanding as their high-CQ peers. Teachers across the sample expressed skepticism about training that generalized how to teach certain groups or that characterized all members of a certain demographic group as a uniform population. However, while teacher licensure programs do attempt to address how culture affects teaching and students experiences in school, more may potentially need to be done to develop the candidates' intercultural capabilities given that the understanding Ladson-Billings refers to was only present in the high-CQ group. All of the teachers in the sample were licensed teachers and completed licensure programs but only the high-CQ group expressed the same understanding stipulated by Ladson-Billings. What may also be consideration is that the teachers did not typically conceptualize their actions as intercultural, potentially pointing to a need for schools of education and licensure to specifically address intercultural scholarship in order to prepare candidates. Given that the school's mean scores were within the middle quartiles, this may suggest potential implications for how culture is, or is not, addressed in the classrooms.

Third, while Ladson-Billings is addressing educators who will work with predominantly African-American students, not all schools—like the one in this study—will fit this mold. Instead, imbuing teacher candidates with the capabilities to navigate new intercultural spaces and learn from their students (combined with mentoring and relevant professional development) may be more advisable. Additionally, placing teacher candidates who minimize or do not understand or

value student cultures and continue to see their students in deficit terms may further alienate students who already experience schools as a hostile environment. As seen in this study, prolonged experience in the case of both medium- and low-CQ teachers, is not enough to grow an educator into a culturally relevant pedagogue.

Ladson-Billings (1995; 2009) also addressed their vision for a culturally relevant school which intersects with the findings of this study in two important ways. First, Ladson-Billings advocates the inclusion of students' home culture as well as its heroes and contributions into the curriculum including the languages of students. Teachers in the high-CQ group expressed interest in the experiences and perspectives of their students, including these and student voices in the classroom. Some teachers in the high-CQ group acknowledged student languages either by discussing the legitimacy and scholarship around African-American Vernacular English or including students' home language into instruction. More of the high-CQ teachers though drew on student experiences and voices in their classrooms, acknowledging and validating the value of student experiences and cultures. In these classrooms, there appeared to be a tacit understanding that multiple perspectives exist and that all the individuals possessed valuable knowledge to be honored. Teachers at the medium level either ignored or cursorily treated issues of home culture and at times focused on the deficits or obstacles that students experience including helping students transcend or escape aspects of their culture in order to be successful. For the low-CQ group, how students home culture entered into the classroom was outside of their understanding. What may account for the difference in approach for the teachers in the study is that their drive and awareness is influencing how they approach student experience. In a sense, CQ may be offering a window into the capabilities necessary to embrace the home culture of the students such as drive, awareness of one's own perspective, and the perspectives of others.

Second, Ladson-Billings (1995; 2009) advocates that teachers and schools engage their students in the real issues of discrimination and inequality, and then asking these students to both

be critical and create solutions. In most of the high-CQ classrooms I observed, I saw teachers engage their students about current events and sociocultural issues with frankness and expectations that their students will wrestle with the topics. Teachers in the high-CQ group used both student interest to guide which issues they would address in class, but also made explicit lesson curriculum choices to provoke students and engage them in critical evaluation of the world. Addressing these types of issues was almost exclusively kept within the high-CQ group; however, not all teachers engaged with these issues and in some cases had reservations about their positionality in broaching topics with students. Teachers in the medium-CQ group expressed uncertainty in how to raise the topics or chose to minimize the importance. One teacher in the medium-CQ group discussed issues of code-switching and the need to be aware of different norms of behavior across cultural groups; however, most of the content in these conversations was about how to assimilate or switch versus a critique of the systems. Teachers in the low-CQ group did not address the issues in a critical way and these issues were seldom raised. In one instance a teacher presented unfairness between school resources as just the way the world works absent of critique or potential implications. What is therefore seen is that high-CQ teachers more fully enacted culturally relevant practices in their classroom. This more robust enactment appeared to transcend factors such as teacher experience level, gender, educational level, and racial background of the teachers.

The discussion and analysis in this study is focused on Ladson-Billings' (1995; 2009) conceptualization and articulation of their theory of culturally relevant pedagogy. However, scholars recently added nuance to the understanding of the complexity of culture within the discourse on teaching diverse student populations, revising Ladson-Billings' theory to *culturally sustaining pedagogy*. Paris (2012), Paris and Alim (2014), and Ladson-Billings (2014) address an important limitation in how educators and teacher education programs portray culture in a static sense that often leads to essentialization and misunderstanding of the complexities of youth

culture (Paris and Alim, pp. 91-92). Additionally, these scholars troubled the practices of teachers and teacher educators in implementing culturally relevant pedagogy. While Ladson-Billings (2014) notes how social justice is largely omitted from practice (p. 77), Paris and Alim (2014) go one step further to question the implicit power dynamics and assimilationist views embedded in educational policies. The beliefs and practices of high-CQ teachers in this study converge with the updated culturally sustaining pedagogy (Ladson-Billings, 2014), as the teachers engaged their students in sociocultural and social justice themes, and demonstrated nuanced and fluid awareness of student cultures and identities, their positionality, and the role of culture in teaching and learning. At the time of this study, the fleshed out components of culturally sustaining pedagogy were not available and as such the connections between the classroom practices and the findings of this study could not be developed.

Pre-service preparation and professional development. The study's findings suggest that teachers who possess more intercultural capabilities are able to more effectively enact culturally relevant pedagogy, and indicate that incorporating intercultural capabilities into pre-service preparation and in-service teacher professional development might provide a means to address the persistent problem of teachers' negative attitudes towards their culturally diverse students raised by scholars in culturally relevant pedagogy and multicultural education. Additionally, the findings in this study may also support Cushner's (2011) contention that before social justice work can occur in the classroom, teachers' intercultural mindsets and understanding must be addressed first. What this study shows is that teachers who are more interculturally competent are more receptive to the experiences of students, incorporate their students' interests and perspectives into their teaching, and show a willingness to broach cultural and critical inquiry into sociocultural issues.

If teaching were to be recast as an intercultural as well as social justice act, combined with professional development and course work to support teachers' understanding and

conceptualization of teaching as intercultural work, teachers may understand their classroom interactions through new and deliberate practices. In this study, teachers saw their behaviors, whether developing a relationship with a student or incorporating multiple perspectives into a lesson, as an act of pedagogy rather than an intercultural inquiry or engagement. Even teachers who were adept and altering their speech and behaviors did not see these modifications as intercultural but rather as ways of developing rapport and social capital with their students. As such, the components of planning for interactions and checking behaviors were not part of their vocabulary or professional acumen. Inclusion of intercultural content into professional development and pre-service programs may help educators develop new understandings of how to utilize and plan out communication strategies and better understand how culture may infuse perception and experiences with the curriculum.

Reflective practice approaches. Current approaches and scholarship within culturally relevant pedagogy and multicultural education point to the need for teachers to possess the capabilities to understand, value, and incorporate the culture of their students into teaching, but how teachers are to develop these capabilities is not currently fully addressed. Some scholars posit that teacher candidates need to engage in reflective practice in order to address underlying attitudes about cultural differences and their own positionality (Durden & Truscott, 2013; Gay, 2009; Gay & Kirkland, 2003; Howard, 2003 & 2012). Other scholars pair reflective writing with immersion experiences situated within courses or volunteer programs to increase teacher-candidate exposure to cultural diversity (Bleicher, 2011; Coffey, 2010; Conner, 2010; Cooper, 2007; Johnson, 2011; Seidl, 2007; Wiggins, Follo, & Eberly, 2007). The goal for these programs is to imbue in pre-service teachers the capability to "reflect *critically* on their practices and the ideology that drives them" (Durden & Truscott, 2013, p. 73) in order to enact culturally relevant pedagogy.

The approaches above present compelling models for developing the knowledge and skills of culturally relevant pedagogy in educators already invested in the juncture of culture and education. While the authors qualify their claims about the programs' effectiveness stating that their programs may not be broadly applicable, these studies are also limited due to their typically small sample sizes, and a lack of data about how the pre-service teachers perform in their classrooms after the programs (Sleeter, 2012). These studies also lack coherent and empirically validated frameworks to aid candidates in conceptualizing and assessing their development of intercultural capabilities.

Dispositions. Other approaches assert that teachers must be equipped with attitudes and dispositions about the potential for each child to learn, and the knowledge and skills to use the culture of their students as a means to engage them in constructivist inquiry and a social justice critique of schooling and society (Amos, 2011; Edwards, 2011; Gunn, Bennett, Evans, Peterson, & Welsh, 2013; McCrary, 2010; Milner 2006; Thompson, 2013; Villegas, 2007). However, the focus on dispositions in terms of teachers' abilities to navigate cultural diversity is problematic. The National Council for the Accreditation of Teacher Education (NCATE) defines teacher *dispositions* as:

> Professional attitudes, values, and beliefs demonstrated through both verbal and non-verbal behaviors as educators interact with students, families, colleagues, and communities. These positive behaviors support student learning and development…The two professional dispositions that NCATE expects institutions to assess are *fairness* and the belief that all students can learn. (Dispositions, n.d.)

Many pre-service teacher preparation is presently situated within the NCATE definition of teacher dispositions and many teacher education scholars and preparation programs focus their efforts on developing these dispositions. However, teacher education programs are constrained by

the limited definition of dispositions in the NCATE standards (Damon, 2007) and need an undergirding developmental theory to structure programs and develop teacher candidate intercultural competence. The definition provided by NCATE hints at Ladson-Billings' (1995; 2009) tenet regarding high teacher expectations but the definition and subsequent standards do not describe how these dispositions are to be developed, what the dispositions look like in practice, but instead focus on the accumulation of teacher knowledge (Standard 1: Candidate knowledge, skills, and dispositions, n.d.; Standard 4: Diversity, n.d.), and general guidelines toward understanding perspectives and equitable treatment of students.

Providing models, such as this study, to show how individuals develop intercultural capabilities paired with research into the methods of how to develop could potentially serve current and pre-service teachers to better understand how they can develop the necessary capabilities to be effective in their classrooms. Similarly, this study's findings may provide a needed component to the scholarship on culturally relevant pedagogy by providing an empirically researched means for conceptualizing the development and assessment of teachers' intercultural capabilities not currently provided for in the literature on culturally relevant pedagogy. This contribution may help teachers and teacher educators better understand what intercultural competence looks like in the classroom as well as how it intersects with culturally relevant pedagogy.

In situ CQ capabilities. The findings from the school survey and school-wide CQ assessment data present an area for future consideration in both research and professional development. While most teachers reported that they included culture into their classroom practices, most teachers CQ assessment scores placed them within this study's medium-CQ group. If the study's findings on medium-CQ teachers match that of most teachers in the building, then it may suggest a disconnect between teachers' perceptions of their practices as well as their own abilities compared to what is happening in classrooms. The study's findings also suggest that

professional development that turns teachers' gaze inward towards their own understanding of culture and how these experiences and perspectives may be different than their students may is one method to alter this disconnect and assist teachers in developing their culturally relevant classroom practices.

While these potential contributions may help equip teachers to better navigate the intercultural spaces of their schools and communities, the CQ construct is not without need of revision to better address how teachers understand their students and how they navigate the classroom. Ang, Leung, and Tan (2014) suggest that the next phase in the development of intercultural competence research explore in situ capabilities, or those unique capabilities needed to be successful within a specific context or setting. In this study the teachers' motivations for working culturally diverse student populations and their awareness of both teachers' and students' cultural perspectives were effectively captured by CQ and its self-reported assessment instrument. However, this study's findings also indicated that future in situ conceptualizations of CQ for educators need include dimensions which incorporate how teachers utilize student interest to create meaningful lessons, tap the cultural perspectives and experiences of their students to co-create knowledge in the classroom, and engage their students in the critical evaluation sociocultural issues.

This study's findings suggest that for teachers within the US education context, CQ Knowledge needs to be revised in order to better reflect the dynamic knowledge teachers compile about their students' interests, home lives, and fluid identities. Knowledge about students' culture and influences outside the classroom, especially as it intersects with their students' school experience such as gendered and religions expectations for participation, attendance, and access to resources, need to be incorporated into the construct to more accurately capture what culturally intelligent teachers know and how they put this knowledge to use in their classrooms. Similarly, this study found that CQ Action needs to incorporate the manner in which teachers build informal

relationships and social capital with their students. A more complete understanding of how teachers understand, develop, and utilize these teacher-student relationships for learning will need to be incorporated into new versions of teacher-specific, or in situ, conceptualizations of CQ in order to increase its utility in the development classroom teachers. More research will be needed to fully explore and explain the actions of teachers as well as adapt the assessment instruments to better capture what teachers know about their students and what actions they take in the classrooms.

Policy. The findings from this study may indicate that teachers who rate themselves higher on the CQ self-reported assessment will more fully enact culturally relevant practices in their classrooms, possess a deeply felt motivation to work with diverse student populations, and recognize their own limited perspectives and the rich knowledge and experiences of their students. However, as this study may also suggest, teachers who assess themselves within the middle two quartiles of CQ's world-wide norms or below may not be as ready to enact culturally relevant pedagogy. If a great number of teachers, fall within these middle two or bottom quartiles, it may mean that the majority of pre-service teacher candidates and in-service teachers may not be as prepared to enact culturally relevant teaching practices. This may have significant policy implications for how teacher licensure and professional development programs deliver their content and prepare these teachers to work with culturally diverse student populations (Banks, et al., 2005; Borrero, Flores, & de la Cruz, 2016; Darling-Hammond, 2010; Whipp, 2013).

Professional development and licensure programs may consider supplementing information about students or the need for social justice or equity education with curriculum that will address candidates' underlying attitudes, mindsets, worldviews, and motivations towards cultural differences. Similarly, helping teacher candidates develop more awareness of themselves as cultural beings, their students as possessors of rich and valid knowledge and perspectives will may also be included. Teachers at the higher levels of intercultural capabilities, in other words

possessing the drive to work with culturally diverse populations and awareness of culture in the classroom, may need more opportunities to see how colleagues integrate these concepts into their teaching practices.

Similar to pre-assessing a group of students for learning new content, this study may suggest that professional development and licensure programs examine the readiness of teachers to grapple with and make meaning out of equity or cultural sensitivity training and then provide them with content, coursework, and coaching that address their current levels of understanding. Additionally, coursework and training from the fields of intercultural relations and intercultural training and assessment may help teachers and teacher candidates see their work through an intercultural lens. Incorporating case studies, role plays, intercultural games, critiques and coaching around of video recorded interactions are all potential activities which might help teachers develop their intercultural capabilities. Findings from this study may indicate that teachers' behaviors and attitudes reflect an understanding that they need to build relationships with students and even include their home cultures and perspectives, but that they do not understand how culture may influence behaviors, understanding, or interactions, nor how to incorporate the perspectives of their students in their classes. Envisioning the work of teaching as an intercultural process may help teachers re-conceptualize their work with students and engage more purposefully in addressing cultural content in their interactions and curriculum.

A limited number of new studies discuss how teachers' intercultural competence may be developed through international study abroad experiences (Marcus & Moss,2015; Parkhouse, Tichnor-Wagner, Cain, & Glazier, 2016; Salmona, Partlo, Kacynski, & Leonard, 2015). The approaches are varied and only a single study utilized an intercultural assessment and intercultural competence frameworks in its conceptualization. Additionally, issues of cost and time needed to participate in such programs are also problematic and may preclude many teachers from taking advantage of them. These studies also struggled with helping students connect their

international experience to their home country teaching context beyond feeling uncomfortable in a new setting. Without a framework to guide participants' intercultural development and without deliberate efforts to help make meaning out of experiences that can be used in the classroom, these programs may be of little benefit to teachers as they attempt to navigate the cultural diversity in their classrooms at home. Borrowing from scholarship on study abroad programs and development of intercultural competence (Savicki, 2008; Selby, 2008; Vande Berg, Paige, & Lou, 2012) would potentially aid in the design of learning experiences for teachers who could participate in these programs.

The potential policy, licensure, and program changes to incorporate intercultural capabilities development into how teachers are prepared to work with culturally diverse student populations would require significant resources in time, personnel, and intellectual capital. At this time, the research supporting the incorporation of intercultural capabilities constructs like CQ into teacher preparation is too limited to advocate for policy changes. While this study and a study that utilized CQ to examine the development pre-service intercultural capabilities (Kennedy, in press) demonstrate convergence with culturally relevant pedagogy, and fields like study abroad and intercultural relations supply precedents for expanding individuals' intercultural capabilities, more research on CQ in education, is needed before firm arguments for changes in policy can be made.

Conclusion

This study's qualitative findings contribute to the existing research both in CQ and in the intercultural capabilities of teachers as it investigated the beliefs and practices of practicing classroom teachers. Research up to the writing of this dissertation has assessed teachers' intercultural capabilities, primarily with the IDI, without examining how teachers conceptualize their intercultural work within teaching nor how teachers' mindsets or attitudes may manifest themselves within their classroom practices. This study utilized CQ, a rigorously validated

construct and instrument, to assess teachers' intercultural capabilities combined with intensive qualitative methods to examine and explain how teachers at varying levels of CQ teach their culturally diverse students. The findings from this study may indicate the utility and application of CQ to education as CQ provides a multifaceted look into teachers' motivations, awareness, knowledge, and actions in intercultural classroom spaces which other available intercultural constructs do not. The findings of this study may also indicate future areas for research on CQ so that it may develop additional in situ capabilities experienced by teachers.

CQ may provide a means to address the current limitations in the scholarship on culturally relevant pedagogy in regards to the intercultural capabilities of teachers. In particular, CQ may provide a way to conceptualize, explain, and assess the development of intercultural capabilities needed for teachers to teach their culturally diverse student populations. The findings of this study suggest that CQ may potentially be useful for professional development and teacher candidate preparation as the assessment instrument may provide insight into the readiness for teachers to enact culturally relevant pedagogy as teachers who assessed themselves higher on the CQ assessment expressed more interest in and nuanced understanding of the cultural aspects of teaching. Additionally, these higher-CQ teachers enacted more culturally relevant teaching practices than their lower assessed colleagues. As such CQ may thus be envisioned as a complementary undergirding framework for culturally relevant pedagogy that will allow teachers and teacher candidates to develop the capabilities to understand, value, access, and engage critically the cultural perspectives of their students and their society.

While promising, the CQ construct is not a perfect match in terms of explaining the classroom practices of teachers. CQ appeared to effectively capture teachers' underlying interests and awareness of student cultures, perspectives, and experiences; however, the current conceptualization of CQ Knowledge and CQ Action do not reflect what teachers know about their students nor how they navigate the intercultural spaces of their classrooms. Teachers in the high-

CQ group, for example, developed highly detailed knowledge maps of their students' lives and interests which is different than CQ Knowledge current conceptualization that includes business, values and norms, verbal and non-verbal language, and leadership styles. Similarly, while teachers in the study did alter their voice patterns and content of speech to more informal topics and collegial discussions with students to develop social capital and teacher student relationships (TSRs), this is different than how CQ Action describes appropriate behaviors in intercultural situations. Teachers did not necessarily follow specific patterns nor match their students' cultures but instead discovered individual manners to build connections with students in their classrooms. Further research is needed to develop more in situ capabilities of teachers that address the types of knowledge teachers need to develop to better teacher their culturally diverse students, the actions teachers utilize to more effectively engage their culturally diverse students.

Future research will need to address several additional issues before its applicability to education can be established. First, the meanings that teachers and teacher candidates apply to the CQ construct will be helpful in understanding how educators utilize and position CQ within their practices especially in regards to their interactions with students, families, and communities. Investigating this issue will potentially inform the development of in situ capabilities for a CQ education model. Second, research into how students perceive their teachers and their practices across varying levels of CQ capabilities will be needed to provide insight into the effectiveness and applicability of CQ to culturally diverse student populations. How students experience their teachers' practices may potentially provide important insight into how intercultural capabilities may align with culturally relevant practices and if intercultural scholarship can inform and be translated into pedagogical practices. Further investigation into identifying the speech actions and behaviors of teachers in their development of TSRs with students by researchers in fields such as linguistics or proxemics may potentially identify common underlying themes to teachers' informal social capital building actions with students.

Coda: Return to the Research Site and A Final Classroom Observation

I returned to the research site on the last day of school after being away for almost five months. One of the world language teachers in the study invited me to watch one of their classes' final exams—a song review, lip sync performance, and audience feedback. I was thrilled by the invitation and a little anxious about what it would be like to return to the site. In the office I said hello to the front desk staff and the assistant principal, signed into the visitor log and picked up a guest badge. I took my usual route past the commons with the student murals as if on autopilot and began to head towards the world language classroom. I made it past one corridor before I ran into a familiar face—one of the high-CQ group English teachers. We exchanged greetings and caught up a bit, asking about summer plans. Standing in the hallway more and more of the teachers I knew from the study, both participants and other staff, stopped by to say hi, shake hands, or hug as they made their way to the staff lounge for the end of the year breakfast.

As I caught up with one of the low-CQ teachers from the study they told me that they were not returning next year and that it was not their choice. We walked for a bit and talked about the decision and their job search plans—a reminder of the closeness and trust that the teachers afforded me. I asked them to keep me posted about their search and wished them well over the summer. As I continued my interrupted journey to the world language classroom I was struck by the collegiality and warmth in this last interaction. This was a teacher whom I watched struggle in the classroom and one who received a CQ report with low scores, yet there was no avoidance or discomfort on their part. A similar thing happened as I bumped into another one of the low-CQ group teachers on my way out of the building—a hug and warm greetings, an update on the summer. I was left wondering then about how a professional development conversation would go about culturally relevant teaching or about navigating the cultural complexity of the classroom. Did the assessment offer a way to have the conversations without defenses going up? Did having a peer who could evaluate and observe without reporting responsibilities open up the potential for

dialogue? As I drove home back to my computer, my notes, and drafts I kept thinking about the possibilities for professional development, eager to get back into the school to test out these ideas.

I finally arrived in the world language classroom and greeted the teacher. We chatted for a bit and I asked about one of their challenging students, Chris, and if he was ever able to turn his progress around. The teacher drew in a bit closer and told me that this was the reason that they invited me to watch the class again. Chris had not performed well in the class almost the entire remainder of the year, offering little in the way of effort, punctuating this by holding up their hand and curling it into a zero. However, the teacher told me, with this final project something happened. His effort mushroomed. His engagement soared. The teacher watched him practice the song as he listened over and over to it on his headphones. The teacher commented that it was really remarkable and that they were really excited by this development. I thought to myself that through the fall and early winter I watched this teacher stick with this student, giving him endless second-chances, and now on the last day of school they were still hanging with him, not giving up until literally the final bell.

Kids started to file into the room as the exam period was about to begin. I knew the students in the class, having observed them earlier in the school year and they remembered me even before I took my usual seat. Chris spotted me immediately, said hello, and then took a seat off of my right shoulder. I end up cracking him up during the exam period as he watched my reactions to some of the student performances. Chris's group goes second to last and they are missing a group member. The teacher volunteers to substitute and then the performance begins. The students start with their review of the song and explanation as to why they chose it. Chris's pronunciation and grammar in the course's world language is quite proficient as he reads his part with clarity and confidence. The group transitions to the lip sync portion of the performance and Chris is standing right in front of me so I am really able to see his expressions and gestures. As the music begins his face lights up, his body language is animated, and he follows the words of

the song in his non-native tongue with precision. This is the most engaged I have seen in him in all of my observations. I glance over at the teacher, they are beaming—a broad smile, huge eyes, hands clasped in front of their chest—and they radiate pride. After the song wraps up the students applaud madly and I even feel a lump in my throat. Seeing Chris perform, and watching his teacher's reaction is a good way to wrap up the school year.

As I reflect back on what I saw happen today and the whole course of the school year. In this classroom I saw a teacher refuse to give up on a student, create assignments that addressed student interest, learn alongside their students about gender identities, establish a respectful and supportive classroom community, address anti-Muslim bias and terrorism, and build strong social connections with all of their students. I saw a teacher teach in all the multifaceted ways that are embodied in the verb. I hope that what I gleaned from their thoughts and practices can help teachers navigate cultural differences and reach all kids, especially kids like Chris (final observation, June 2, 2016).

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Appendix A

Interview protocol for semi-structured interviews

1. As a classroom teacher I am always interested in people's stories about how they came to the profession. Can you tell me about how you decided to become a teacher?
2. What brought you to this school?
3. One question I remember asking potential new hires when I was a department chair was to characterize how your work with students. How would you characterize your work at this school with students who are different from you?
    a. How would you describe it?
        i. How would describe your own development as a teacher in this school?
        ii. Metaphor?
    b. What would you attribute to your success or challenges in working with culturally diverse students and communities?
    c. Can you share with me an example of a challenging experience and how you handled it? What did you learn?
4. One of the things we work on in pre-service teacher preparation is about working with diverse student populations. As an experienced teacher and teacher educator can you share with me about how you approach working with culturally diverse students in your classroom?
    a. Outside of the classroom?
    b. How do you go about learning about your students and their communities?
    c. How do you approach interactions with students who are different from you? Parents?
    d. How do you think about your classroom practices?
5. What would you tell or do with new teacher about how to help the students learn in your school?
    a. How do you for connecting with diverse student populations?
6. If you had to explain what you were doing to a new teacher, how could you help them see your practices for working with culturally diverse students and identify them?
7. Tell me about how you understand the role of culture in education?
    a. What role, if any, has culture played in your life?
        i. Professional practice?
        ii. Personal life?
8. How do you describe cultural differences in your classroom?
    a. With your students?
    b. In your school?
    c. What role does it play in your classroom?
    d. What role does it play in your instruction?
    e. What role does it play in your interactions with students? Parents? Other groups?
9. You've shared with me a lot about how you work with culturally diverse students; part of this study will be classroom observations—can you help me understand what to look for if I were to walk into your classroom?
    a. What behaviors or actions or texts/materials would I be able to say, "oh, here's an example of…"?
10. Do you have any questions for me?

Appendix B

Demographic survey to accompany CQS assessment

The goal of this study is to improve pre-service teacher education and professional development in teaching culturally diverse student populations. Your responses below will help build both an understanding of the characteristics and experiences of teachers who currently work with culturally diverse students and important contextual information about the school community.

Your survey response will be kept confidential and will not be shared with school personnel or any other individuals or groups outside of the study's researcher. Information you provide will be used in the study report as part of a group profile and your identity will not be disclosed.

The survey should take no more than 10-15 minutes to complete.

Thank you for taking the time to complete the questionnaire and for your help in this study.

Sincerely,

Doug Kennedy
Doctoral Candidate in Comparative International Development Education
University of Minnesota

Name: _____

1. How long have you been a teacher?
    a. 0-2 years
    b. 3-5 years
    c. 6-8 years
    d. 9-11 years
    e. 12-14 years
    f. 15-17 years
    g. 18-20 years
    h. Over 20 years

2. What is your area of licensure?
    a. Agriculture
    b. Art
    c. Business/Technology education
    d. English/Language arts
    e. English as a second language
    f. Health/Physical education/DAPE
    g. Math
    h. Social studies
    i. Special education
    j. World language

3. What is the last academic degree you completed?
    a. Bachelor of Arts (B.A.)
    b. Bachelor of Science (B.S.)
    c. Master of Education (M. Ed.)
    d. Master of Arts (M.A.)
    e. Doctor of Philosophy (Ph.D.)
    f. Doctor of Education (Ed. D.)

4. How long have you taught at this school?
    a. 0-2 years
    b. 3-5 years
    c. 6-8 years
    d. 9-11 years
    e. 12-14 years
    f. 15-17 years
    g. 18-20 years
    h. Over 20 years

5. What, if any, is your work experience outside of teaching in your licensure area?

6. In your opinion, how important is it for teachers to consider the culture of their students in their teaching practices?
    a. Most important consideration in teaching
    b. One of the top considerations in teaching
    c. Important consideration but there are others that are more pressing in teaching
    d. Not more or less important than any other consideration in teaching
    e. Less important than other considerations in teaching
    f. Not an important consideration in teaching

7. How, if at all, does the culture of your students enter into your teaching practice? Please mark all that apply in your teaching practice.
    a. Room decoration
    b. Teaching materials
    c. Lesson activities
    d. Assignments
    e. Classroom routines
    f. Communication with students in the classroom
    g. Communication with students in non-classroom spaces
    h. Communication with students and families outside of classroom instruction
    i. Outside classroom activities

8. Can you describe a significant incident that shaped how you understand the role of culture in your teaching?

9. What is your age?
    a. 21-24
    b. 25-28
    c. 29-32
    d. 33-36
    e. 37-40
    f. 40-44
    g. 45-48
    h. 49-52
    i. 53-56
    j. Over 57
10. What is your preferred gender identity?

11. How would you describe your racial or ethnic background?

Appendix C
Frequency tables of survey responses

7. How, if at all, does the culture of your students enter into your teaching practice? Please mark all that apply in your teaching practice.

Question 7: Response option A frequency

Decor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use room decoration as cultural teaching practice	25	43.1	43.1	43.1
	Use room decoration as cultural teaching practice	33	56.9	56.9	100.0
	Total	58	100.0	100.0	

Question 7: Response option B frequency

Materials

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use materials as cultural teaching practice	16	27.6	27.6	27.6
	Uses teaching materials as cultural teaching practice	42	72.4	72.4	100.0
	Total	58	100.0	100.0	

Question 7: Response option C frequency

Activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use activites as cultural teaching practice	15	25.9	25.9	25.9
	Uses lesson activities as part of cultural teaching practice	43	74.1	74.1	100.0
	Total	58	100.0	100.0	

Question 7: Response option D frequency

Assignments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use assignments as part of cultural teaching practices	22	37.9	37.9	37.9
	Uses assignments as part of cultural teaching practices	36	62.1	62.1	100.0
	Total	58	100.0	100.0	

Question 7: Response option E frequency

Routines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use classroom routines as part of cultural teaching practices	29	50.0	50.0	50.0
	Uses classroom routines as part of cultural teaching practices	29	50.0	50.0	100.0
	Total	58	100.0	100.0	

Question 7: Response option F frequency

Classroom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use classroom communication as part of cultural teaching practices	7	12.1	12.1	12.1
	Uses classroom communication as part of cultural teaching practices	51	87.9	87.9	100.0
	Total	58	100.0	100.0	

Question 7: Response option G frequency

Nonclassroom

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use non-classroom communication as part of cultural teaching practices	13	22.4	22.4	22.4
	Uses non-classroom communication as part of cultural teaching practices	45	77.6	77.6	100.0
	Total	58	100.0	100.0	

Question 7: Response option H frequency

Families

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use communication with families as part of cultural teaching practices	16	27.6	27.6	27.6
	Uses communication with families as part of classroom cultural teaching practices	42	72.4	72.4	100.0
	Total	58	100.0	100.0	

Question 7: Response option I frequency

Outside

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Does not use outside classroom activities as part of cultural teaching practices	41	70.7	70.7	70.7
	Uses outside classroom activities as part of cultural teaching practices	17	29.3	29.3	100.0
	Total	58	100.0	100.0	

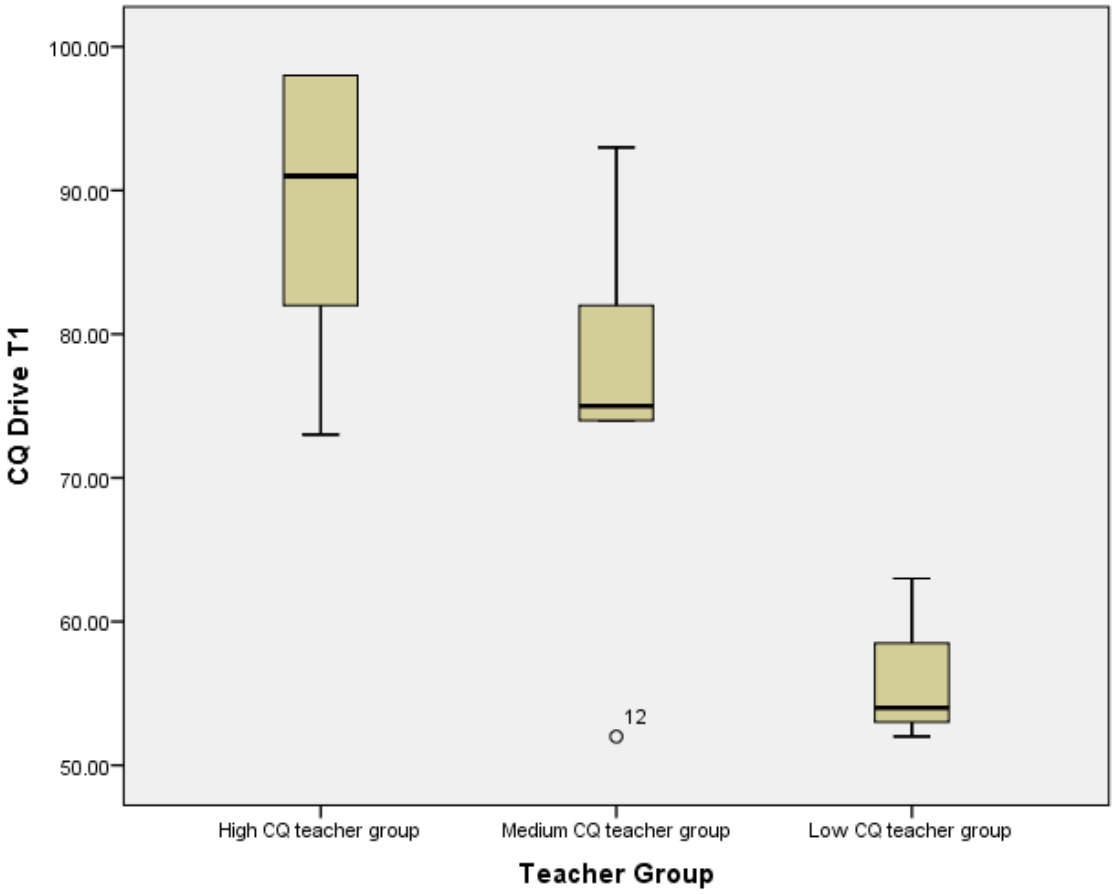
10. What is your preferred gender identity?

Appendix D

Descriptive CQS statistics of teacher sample

Descriptives

	Teacher Group			Statistic	Std. Error
CQ Drive T1	High CQ teacher group	Mean		89.4444	3.23226
		95% Confidence Interval for Mean	Lower Bound	81.9908	
			Upper Bound	96.8981	
		5% Trimmed Mean		89.8827	
		Median		91.0000	
		Variance		94.028	
		Std. Deviation		9.69679	
		Minimum		73.00	
		Maximum		98.00	
		Range		25.00	
		Interquartile Range		18.00	
		Skewness		-.679	.717
		Kurtosis		-1.094	1.400
	Medium CQ teacher group	Mean		75.1667	5.49191
		95% Confidence Interval for Mean	Lower Bound	61.0493	
			Upper Bound	89.2841	
		5% Trimmed Mean		75.4630	
		Median		75.0000	
		Variance		180.967	
		Std. Deviation		13.45239	
		Minimum		52.00	
		Maximum		93.00	
		Range		41.00	
		Interquartile Range		16.25	
		Skewness		-.794	.845
		Kurtosis		2.115	1.741
	Low CQ teacher group	Mean		56.3333	3.38296
		95% Confidence Interval for Mean	Lower Bound	41.7776	
			Upper Bound	70.8891	
		5% Trimmed Mean		.	
		Median		54.0000	
		Variance		34.333	
		Std. Deviation		5.85947	
		Minimum		52.00	
		Maximum		63.00	
		Range		11.00	
		Interquartile Range		.	
		Skewness		1.508	1.225
		Kurtosis		.	.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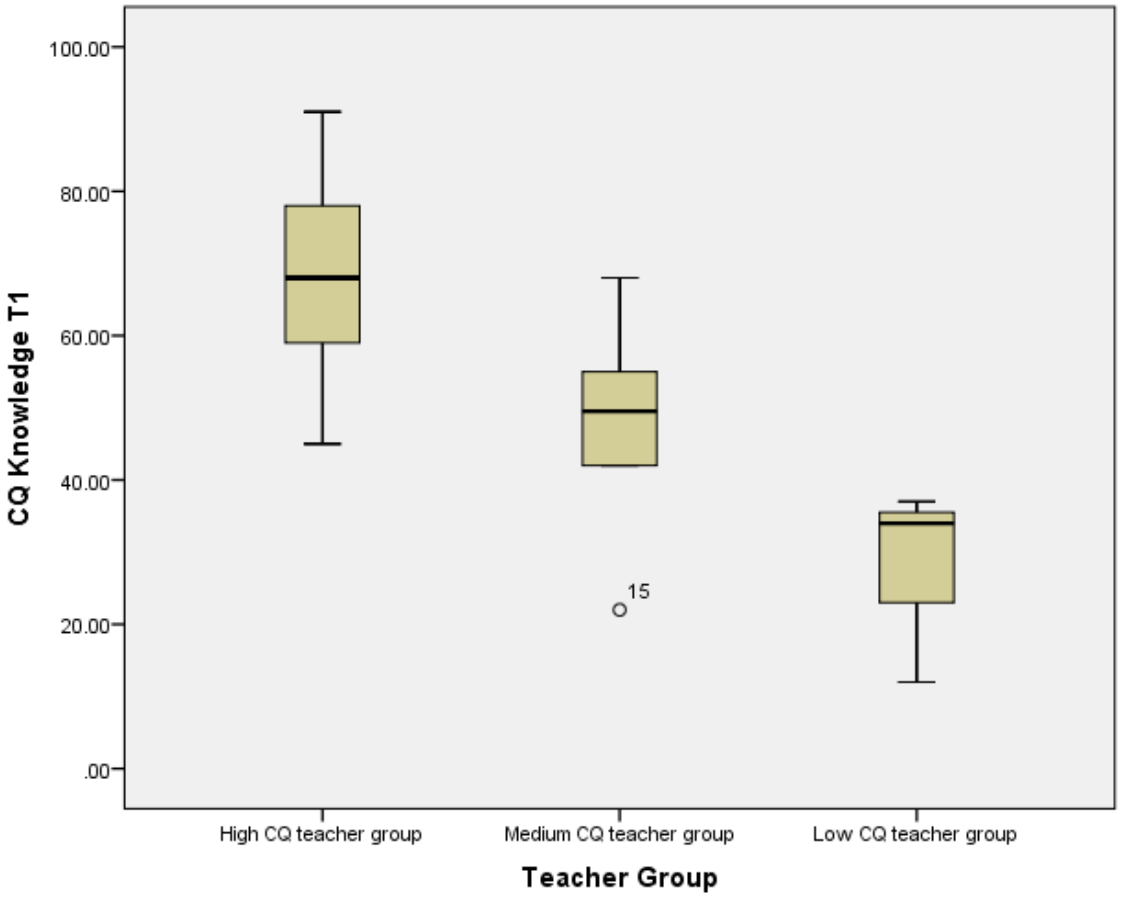
CQ Drive T1
12
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
CQ Knowledge T1	High CQ teacher group	Mean		68.3333	4.68449
		95% Confidence Interval for Mean	Lower Bound	57.5309	
			Upper Bound	79.1358	
		5% Trimmed Mean		68.3704	
		Median		68.0000	
		Variance		197.500	
		Std. Deviation		14.05347	
		Minimum		45.00	
		Maximum		91.00	
		Range		46.00	
		Interquartile Range		22.00	
		Skewness		.058	.717
		Kurtosis		-.213	1.400
	Medium CQ teacher group	Mean		47.6667	6.39097
		95% Confidence Interval for Mean	Lower Bound	31.2382	
			Upper Bound	64.0952	
		5% Trimmed Mean		47.9630	
		Median		49.5000	
		Variance		245.067	
		Std. Deviation		15.65461	
		Minimum		22.00	
		Maximum		68.00	
		Range		46.00	
		Interquartile Range		21.25	
		Skewness		-.621	.845
		Kurtosis		.882	1.741
	Low CQ teacher group	Mean		27.6667	7.88106
		95% Confidence Interval for Mean	Lower Bound	-6.2428	
			Upper Bound	61.5761	
		5% Trimmed Mean		.	
		Median		34.0000	
		Variance		186.333	
		Std. Deviation		13.65040	
		Minimum		12.00	
		Maximum		37.00	
		Range		25.00	
		Interquartile Range		.	
		Skewness		-1.638	1.225
		Kurtosis		.	.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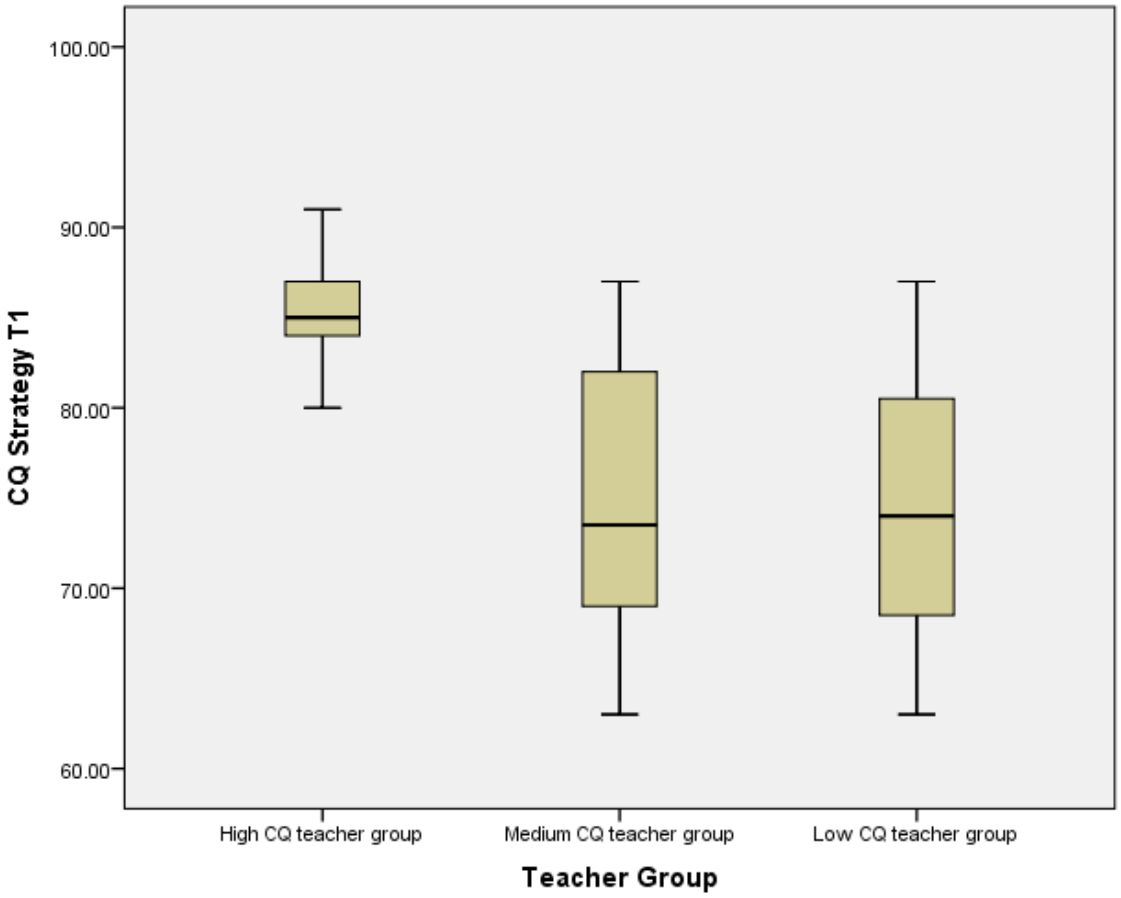
CQ Knowledge T1
15
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
CQ Strategy T1	High CQ teacher group	Mean		85.7778	1.23353
		95% Confidence Interval for Mean	Lower Bound	82.9332	
			Upper Bound	88.6223	
		5% Trimmed Mean		85.8086	
		Median		85.0000	
		Variance		13.694	
		Std. Deviation		3.70060	
		Minimum		80.00	
		Maximum		91.00	
		Range		11.00	
		Interquartile Range		6.00	
		Skewness		.111	.717
		Kurtosis		-.543	1.400
	Medium CQ teacher group	Mean		74.6667	3.60247
		95% Confidence Interval for Mean	Lower Bound	65.4062	
			Upper Bound	83.9271	
		5% Trimmed Mean		74.6296	
		Median		73.5000	
		Variance		77.867	
		Std. Deviation		8.82421	
		Minimum		63.00	
		Maximum		87.00	
		Range		24.00	
		Interquartile Range		15.75	
		Skewness		.198	.845
		Kurtosis		-.966	1.741
	Low CQ teacher group	Mean		74.6667	6.93622
		95% Confidence Interval for Mean	Lower Bound	44.8225	
			Upper Bound	104.5108	
		5% Trimmed Mean		.	
		Median		74.0000	
		Variance		144.333	
		Std. Deviation		12.01388	
		Minimum		63.00	
		Maximum		87.00	
		Range		24.00	
		Interquartile Range		.	
		Skewness		.249	1.225
		Kurtosis		.	.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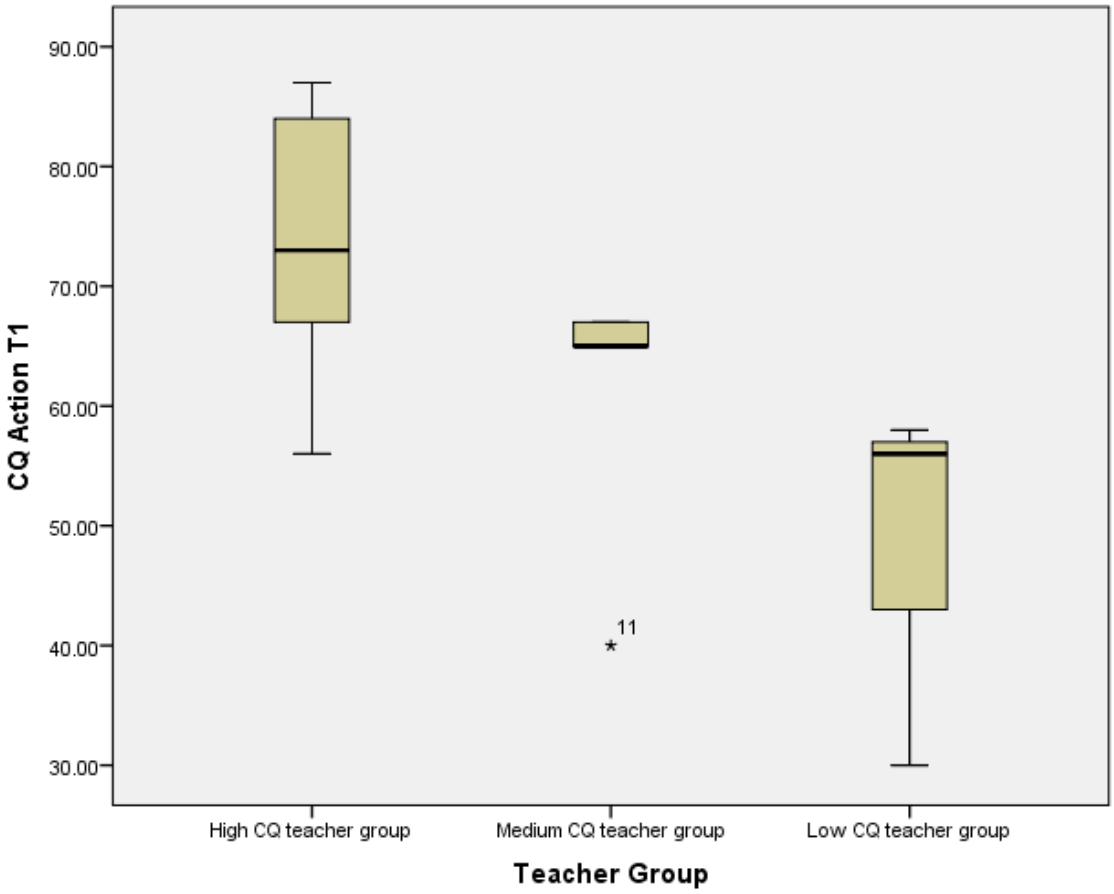
CQ Strategy T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
CQ Action T1	High CQ teacher group	Mean		74.4444	3.56726
		95% Confidence Interval for Mean	Lower Bound	66.2183	
			Upper Bound	82.6705	
		5% Trimmed Mean		74.7716	
		Median		73.0000	
		Variance		114.528	
		Std. Deviation		10.70177	
		Minimum		56.00	
		Maximum		87.00	
		Range		31.00	
		Interquartile Range		18.50	
		Skewness		-.408	.717
		Kurtosis		-.982	1.400
	Medium CQ teacher group	Mean		61.5000	4.31856
		95% Confidence Interval for Mean	Lower Bound	50.3988	
			Upper Bound	72.6012	
		5% Trimmed Mean		62.3889	
		Median		65.0000	
		Variance		111.900	
		Std. Deviation		10.57828	
		Minimum		40.00	
		Maximum		67.00	
		Range		27.00	
		Interquartile Range		8.25	
		Skewness		-2.402	.845
		Kurtosis		5.823	1.741
	Low CQ teacher group	Mean		48.0000	9.01850
		95% Confidence Interval for Mean	Lower Bound	9.1965	
			Upper Bound	86.8035	
		5% Trimmed Mean		.	
		Median		56.0000	
		Variance		244.000	
		Std. Deviation		15.62050	
		Minimum		30.00	
		Maximum		58.00	
		Range		28.00	
		Interquartile Range		.	
		Skewness		-1.700	1.225
		Kurtosis		.	.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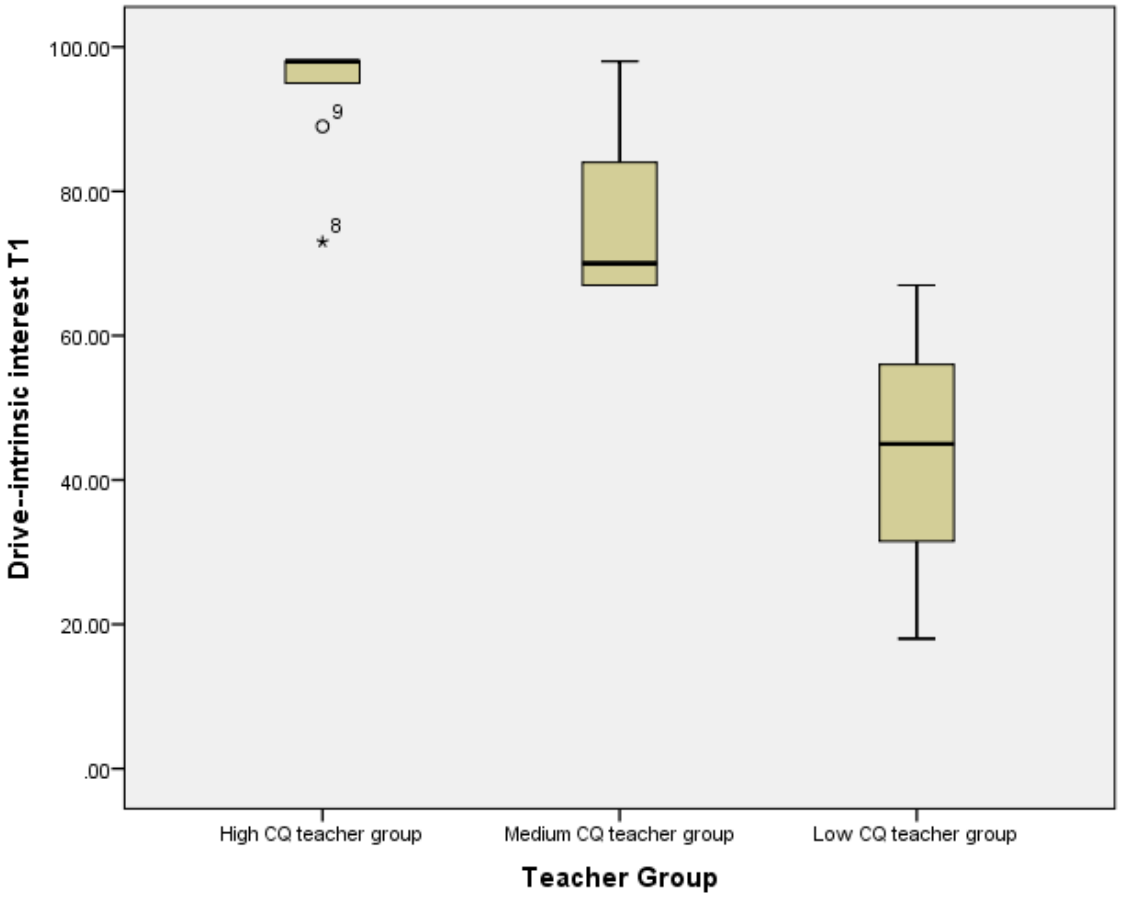
CQ Action T1
11
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Drive--intrinsic interest T1	High CQ teacher group	Mean		93.5556	2.75435
		95% Confidence Interval for Mean	Lower Bound	87.2040	
			Upper Bound	99.9071	
		5% Trimmed Mean		94.4506	
		Median		98.0000	
		Variance		68.278	
		Std. Deviation		8.26304	
		Minimum		73.00	
		Maximum		98.00	
		Range		25.00	
		Interquartile Range		6.00	
		Skewness		-2.374	.717
		Kurtosis		5.824	1.400
	Medium CQ teacher group	Mean		76.0000	5.16398
		95% Confidence Interval for Mean	Lower Bound	62.7256	
			Upper Bound	89.2744	
		5% Trimmed Mean		75.2778	
		Median		70.0000	
		Variance		160.000	
		Std. Deviation		12.64911	
		Minimum		67.00	
		Maximum		98.00	
		Range		31.00	
		Interquartile Range		20.50	
		Skewness		1.326	.845
		Kurtosis		.808	1.741
	Low CQ teacher group	Mean		43.3333	14.16961
		95% Confidence Interval for Mean	Lower Bound	-17.6336	
			Upper Bound	104.3002	
		5% Trimmed Mean		.	
		Median		45.0000	
		Variance		602.333	
		Std. Deviation		24.54248	
		Minimum		18.00	
		Maximum		67.00	
		Range		49.00	
		Interquartile Range		.	
		Skewness		-.304	1.225
		Kurtosis		.	.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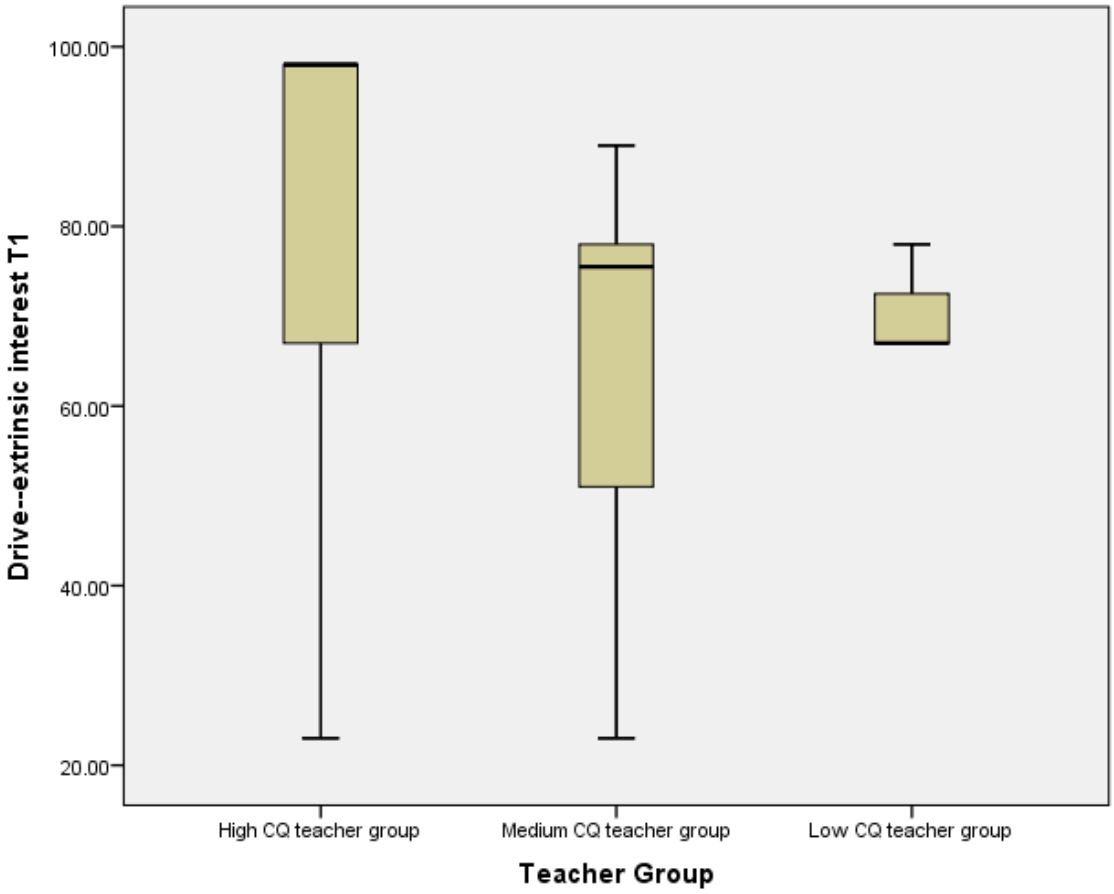
Drive--intrinsic interest T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Drive--extrinsic interest T1	High CQ teacher group	Mean		80.5556	8.89149
		95% Confidence Interval for Mean	Lower Bound	60.0517	
			Upper Bound	101.0594	
		5% Trimmed Mean		82.7840	
		Median		98.0000	
		Variance		711.528	
		Std. Deviation		26.67448	
		Minimum		23.00	
		Maximum		98.00	
		Range		75.00	
		Interquartile Range		36.50	
		Skewness		-1.531	.717
		Kurtosis		1.692	1.400
	Medium CQ teacher group	Mean		65.3333	9.89500
		95% Confidence Interval for Mean	Lower Bound	39.8974	
			Upper Bound	90.7693	
		5% Trimmed Mean		66.3704	
		Median		75.5000	
		Variance		587.467	
		Std. Deviation		24.23771	
		Minimum		23.00	
		Maximum		89.00	
		Range		66.00	
		Interquartile Range		36.75	
		Skewness		-1.286	.845
		Kurtosis		1.098	1.741
	Low CQ teacher group	Mean		70.6667	3.66667
		95% Confidence Interval for Mean	Lower Bound	54.8903	
			Upper Bound	86.4431	
		5% Trimmed Mean		.	
		Median		67.0000	
		Variance		40.333	
		Std. Deviation		6.35085	
		Minimum		67.00	
		Maximum		78.00	
		Range		11.00	
		Interquartile Range		.	
		Skewness		1.732	1.225
		Kurtosis		.	.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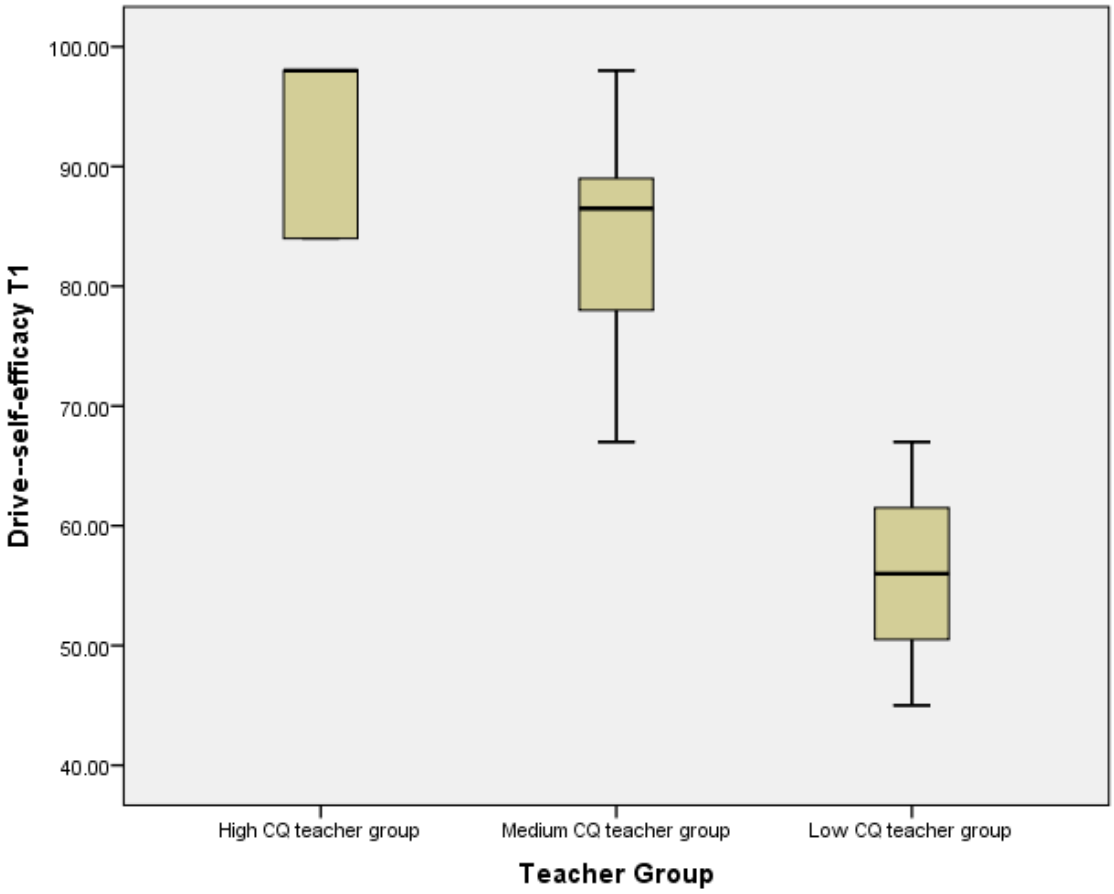
Drive--extrinsic interest T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Drive--self-efficacy T1	High CQ teacher group	Mean		93.0000	2.27303
		95% Confidence Interval for Mean	Lower Bound	87.7584	
			Upper Bound	98.2416	
		5% Trimmed Mean		93.2222	
		Median		98.0000	
		Variance		46.500	
		Std. Deviation		6.81909	
		Minimum		84.00	
		Maximum		98.00	
		Range		14.00	
		Interquartile Range		14.00	
		Skewness		-.788	.717
		Kurtosis		-1.744	1.400
	Medium CQ teacher group	Mean		84.1667	4.36208
		95% Confidence Interval for Mean	Lower Bound	72.9536	
			Upper Bound	95.3798	
		5% Trimmed Mean		84.3519	
		Median		86.5000	
		Variance		114.167	
		Std. Deviation		10.68488	
		Minimum		67.00	
		Maximum		98.00	
		Range		31.00	
		Interquartile Range		16.00	
		Skewness		-.595	.845
		Kurtosis		.517	1.741
	Low CQ teacher group	Mean		56.0000	6.35085
		95% Confidence Interval for Mean	Lower Bound	28.6745	
			Upper Bound	83.3255	
		5% Trimmed Mean		.	
		Median		56.0000	
		Variance		121.000	
		Std. Deviation		11.00000	
		Minimum		45.00	
		Maximum		67.00	
		Range		22.00	
		Interquartile Range		.	
		Skewness		.000	1.225
		Kurtosis		.	.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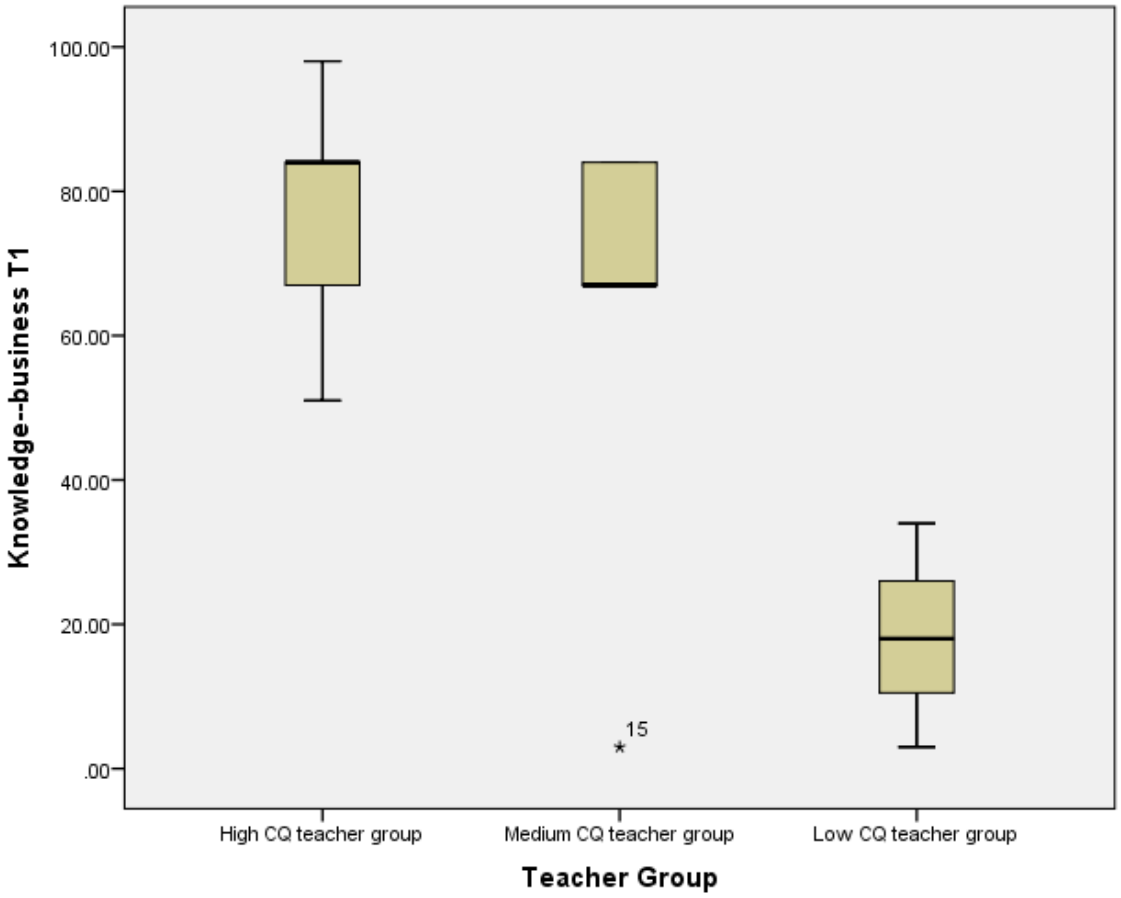
Drive--self-efficacy T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Knowledge--business T1	High CQ teacher group	Mean		78.1111	4.64113
		95% Confidence Interval for Mean	Lower Bound	67.4086	
			Upper Bound	88.8136	
		5% Trimmed Mean		78.5123	
		Median		84.0000	
		Variance		193.861	
		Std. Deviation		13.92340	
		Minimum		51.00	
		Maximum		98.00	
		Range		47.00	
		Interquartile Range		17.00	
		Skewness		-.821	.717
		Kurtosis		.654	1.400
	Medium CQ teacher group	Mean		62.0000	12.28007
		95% Confidence Interval for Mean	Lower Bound	30.4331	
			Upper Bound	93.5669	
		5% Trimmed Mean		64.0556	
		Median		67.0000	
		Variance		904.800	
		Std. Deviation		30.07989	
		Minimum		3.00	
		Maximum		84.00	
		Range		81.00	
		Interquartile Range		33.00	
		Skewness		-2.025	.845
		Kurtosis		4.513	1.741
	Low CQ teacher group	Mean		18.3333	8.95048
		95% Confidence Interval for Mean	Lower Bound	-20.1775	
			Upper Bound	56.8441	
		5% Trimmed Mean		.	
		Median		18.0000	
		Variance		240.333	
		Std. Deviation		15.50269	
		Minimum		3.00	
		Maximum		34.00	
		Range		31.00	
		Interquartile Range		.	
		Skewness		.097	1.225
		Kurtosis		.	.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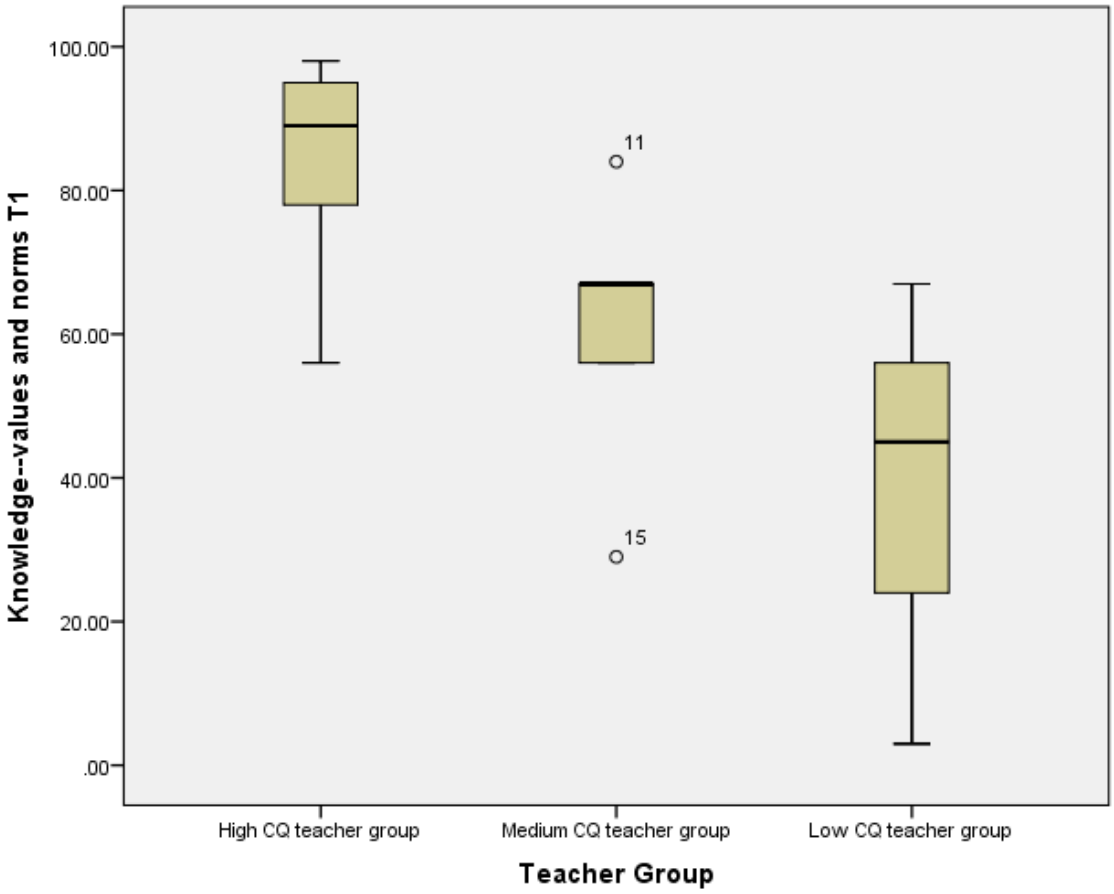
Knowledge--business T1
15
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Knowledge--values and norms T1	High CQ teacher group	Mean		84.6667	4.31406
		95% Confidence Interval for Mean	Lower Bound	74.7184	
			Upper Bound	94.6149	
		5% Trimmed Mean		85.5185	
		Median		89.0000	
		Variance		167.500	
		Std. Deviation		12.94218	
		Minimum		56.00	
		Maximum		98.00	
		Range		42.00	
		Interquartile Range		17.00	
		Skewness		-1.439	.717
		Kurtosis		2.440	1.400
	Medium CQ teacher group	Mean		61.6667	7.49074
		95% Confidence Interval for Mean	Lower Bound	42.4111	
			Upper Bound	80.9222	
		5% Trimmed Mean		62.2407	
		Median		67.0000	
		Variance		336.667	
		Std. Deviation		18.34848	
		Minimum		29.00	
		Maximum		84.00	
		Range		55.00	
		Interquartile Range		22.00	
		Skewness		-1.139	.845
		Kurtosis		2.340	1.741
	Low CQ teacher group	Mean		38.3333	18.77350
		95% Confidence Interval for Mean	Lower Bound	-42.4425	
			Upper Bound	119.1092	
		5% Trimmed Mean		.	
		Median		45.0000	
		Variance		1057.333	
		Std. Deviation		32.51666	
		Minimum		3.00	
		Maximum		67.00	
		Range		64.00	
		Interquartile Range		.	
		Skewness		-.884	1.225
		Kurtosis		.	.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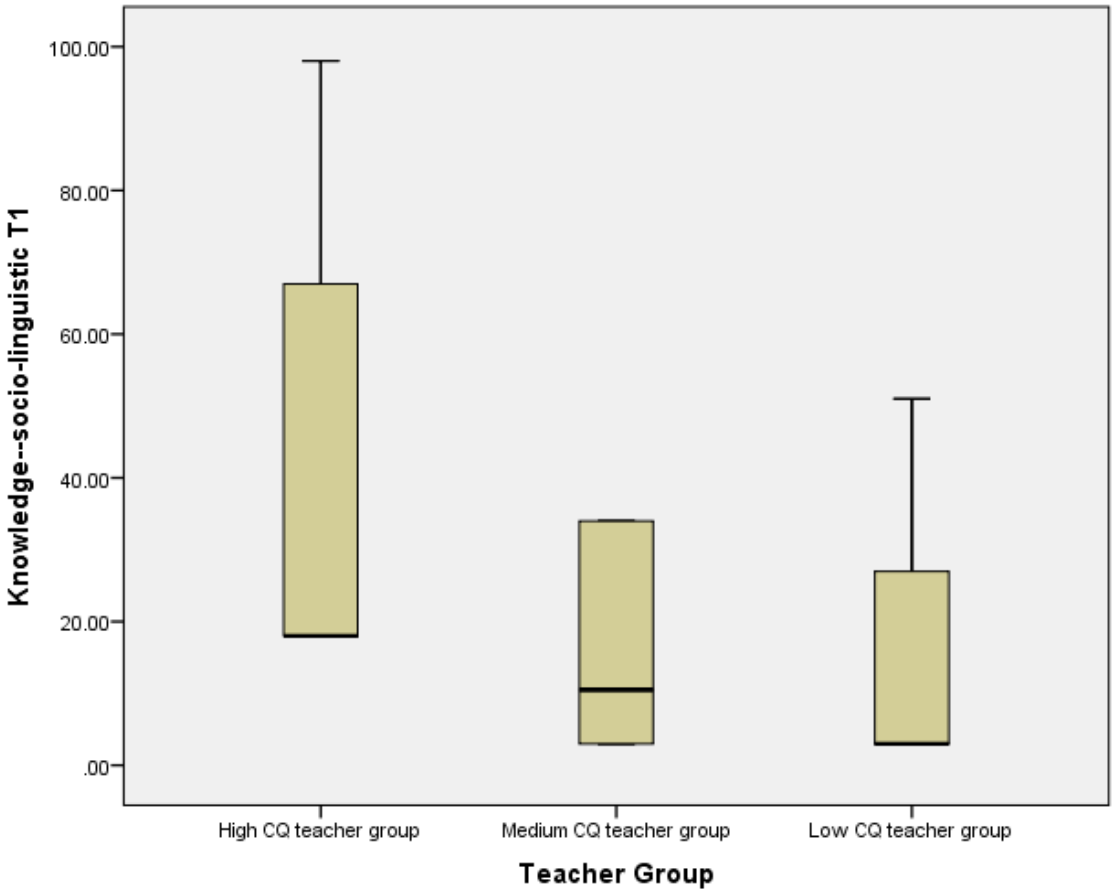
Knowledge--values and norms T1
11
15
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Knowledge--socio-linguistic T1	High CQ teacher group	Mean		45.1111	11.14481
		95% Confidence Interval for Mean	Lower Bound	19.4111	
			Upper Bound	70.8111	
		5% Trimmed Mean		43.6790	
		Median		18.0000	
		Variance		1117.861	
		Std. Deviation		33.43443	
		Minimum		18.00	
		Maximum		98.00	
		Range		80.00	
		Interquartile Range		57.50	
		Skewness		.551	.717
		Kurtosis		-1.727	1.400
	Medium CQ teacher group	Mean		15.8333	6.21512
		95% Confidence Interval for Mean	Lower Bound	-.1432	
			Upper Bound	31.8098	
		5% Trimmed Mean		15.5370	
		Median		10.5000	
		Variance		231.767	
		Std. Deviation		15.22388	
		Minimum		3.00	
		Maximum		34.00	
		Range		31.00	
		Interquartile Range		31.00	
		Skewness		.481	.845
		Kurtosis		-2.351	1.741
	Low CQ teacher group	Mean		19.0000	16.00000
		95% Confidence Interval for Mean	Lower Bound	-49.8424	
			Upper Bound	87.8424	
		5% Trimmed Mean		.	
		Median		3.0000	
		Variance		768.000	
		Std. Deviation		27.71281	
		Minimum		3.00	
		Maximum		51.00	
		Range		48.00	
		Interquartile Range		.	
		Skewness		1.732	1.225
		Kurtosis		.	.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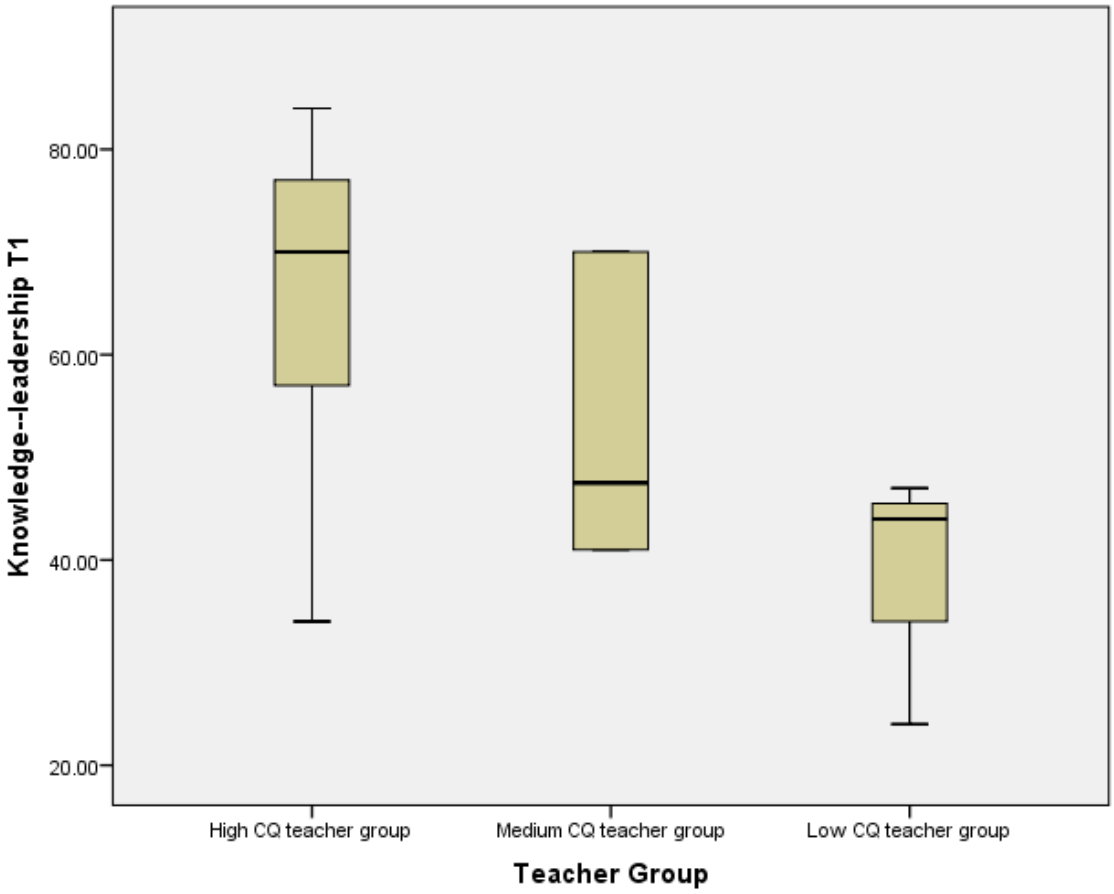
Knowledge--socio-linguistic T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Knowledge--leadership T1	High CQ teacher group	Mean		65.8889	5.53134
		95% Confidence Interval for Mean	Lower Bound	53.1336	
			Upper Bound	78.6442	
		5% Trimmed Mean		66.6543	
		Median		70.0000	
		Variance		275.361	
		Std. Deviation		16.59401	
		Minimum		34.00	
		Maximum		84.00	
		Range		50.00	
		Interquartile Range		26.50	
		Skewness		-1.023	.717
		Kurtosis		.145	1.400
	Medium CQ teacher group	Mean		52.8333	5.62978
		95% Confidence Interval for Mean	Lower Bound	38.3615	
			Upper Bound	67.3051	
		5% Trimmed Mean		52.5370	
		Median		47.5000	
		Variance		190.167	
		Std. Deviation		13.79009	
		Minimum		41.00	
		Maximum		70.00	
		Range		29.00	
		Interquartile Range		29.00	
		Skewness		.699	.845
		Kurtosis		-2.011	1.741
	Low CQ teacher group	Mean		38.3333	7.21880
		95% Confidence Interval for Mean	Lower Bound	7.2733	
			Upper Bound	69.3933	
		5% Trimmed Mean		.	
		Median		44.0000	
		Variance		156.333	
		Std. Deviation		12.50333	
		Minimum		24.00	
		Maximum		47.00	
		Range		23.00	
		Interquartile Range		.	
		Skewness		-1.621	1.225
		Kurtosis		.	.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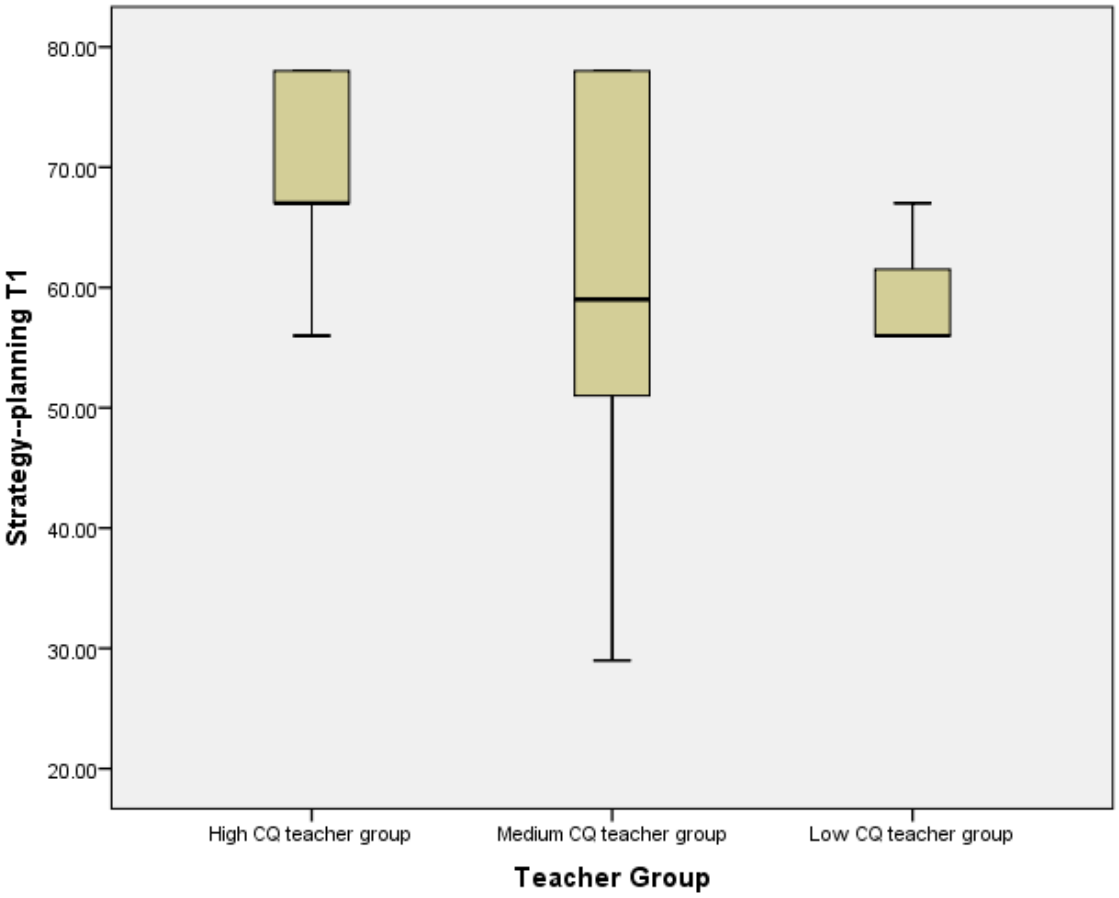
20.00
Knowledge--leadership T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Strategy--planning T1	High CQ teacher group	Mean		70.6667	2.59272
		95% Confidence Interval for Mean	Lower Bound	64.6878	
			Upper Bound	76.6455	
		5% Trimmed Mean		71.0741	
		Median		67.0000	
		Variance		60.500	
		Std. Deviation		7.77817	
		Minimum		56.00	
		Maximum		78.00	
		Range		22.00	
		Interquartile Range		11.00	
		Skewness		-.606	.717
		Kurtosis		-.286	1.400
	Medium CQ teacher group	Mean		59.0000	7.53658
		95% Confidence Interval for Mean	Lower Bound	39.6266	
			Upper Bound	78.3734	
		5% Trimmed Mean		59.6111	
		Median		59.0000	
		Variance		340.800	
		Std. Deviation		18.46077	
		Minimum		29.00	
		Maximum		78.00	
		Range		49.00	
		Interquartile Range		32.50	
		Skewness		-.658	.845
		Kurtosis		.228	1.741
	Low CQ teacher group	Mean		59.6667	3.66667
		95% Confidence Interval for Mean	Lower Bound	43.8903	
			Upper Bound	75.4431	
		5% Trimmed Mean		.	
		Median		56.0000	
		Variance		40.333	
		Std. Deviation		6.35085	
		Minimum		56.00	
		Maximum		67.00	
		Range		11.00	
		Interquartile Range		.	
		Skewness		1.732	1.225
		Kurtosis		.	.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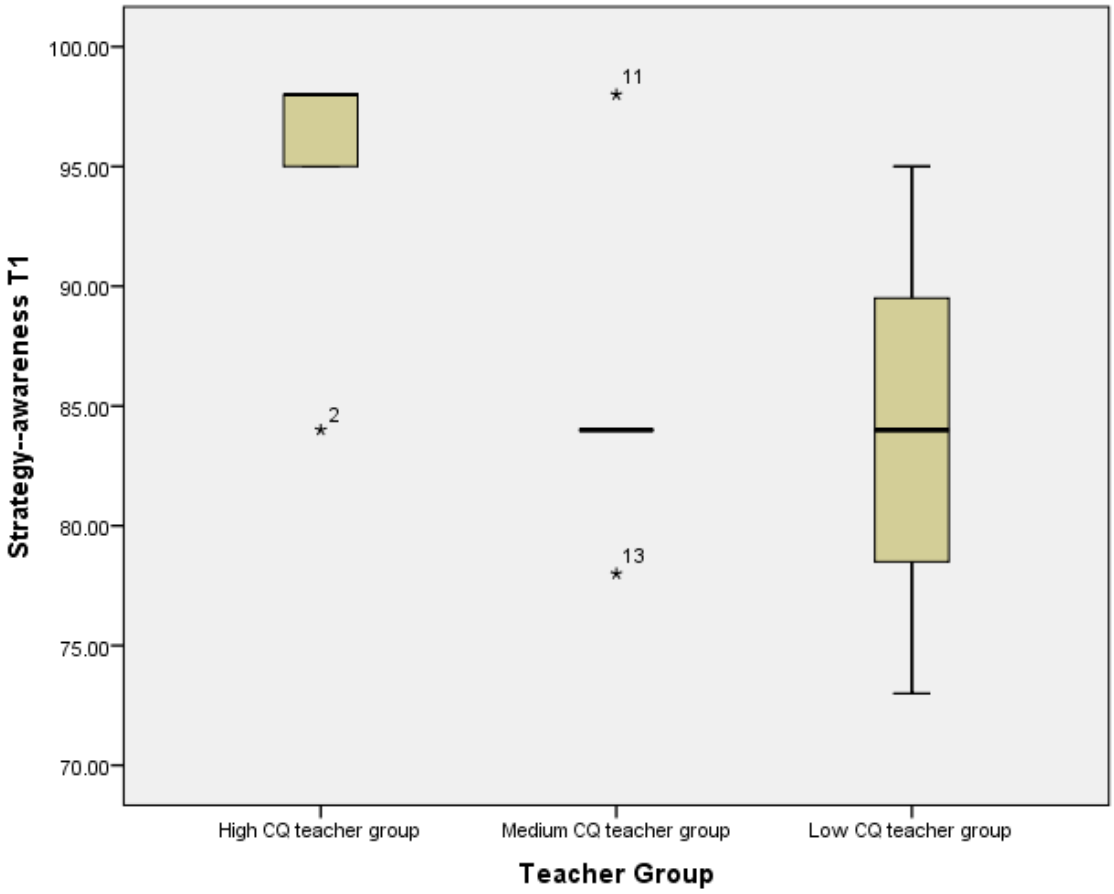
20.00
Strategy--planning T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Strategy--awareness T1	High CQ teacher group	Mean		95.4444	1.51025
		95% Confidence Interval for Mean	Lower Bound	91.9618	
			Upper Bound	98.9271	
		5% Trimmed Mean		95.9383	
		Median		98.0000	
		Variance		20.528	
		Std. Deviation		4.53076	
		Minimum		84.00	
		Maximum		98.00	
		Range		14.00	
		Interquartile Range		3.00	
		Skewness		-2.446	.717
		Kurtosis		6.469	1.400
	Medium CQ teacher group	Mean		85.3333	2.71621
		95% Confidence Interval for Mean	Lower Bound	78.3511	
			Upper Bound	92.3156	
		5% Trimmed Mean		85.0370	
		Median		84.0000	
		Variance		44.267	
		Std. Deviation		6.65332	
		Minimum		78.00	
		Maximum		98.00	
		Range		20.00	
		Interquartile Range		5.00	
		Skewness		1.659	.845
		Kurtosis		3.984	1.741
	Low CQ teacher group	Mean		84.0000	6.35085
		95% Confidence Interval for Mean	Lower Bound	56.6745	
			Upper Bound	111.3255	
		5% Trimmed Mean		.	
		Median		84.0000	
		Variance		121.000	
		Std. Deviation		11.00000	
		Minimum		73.00	
		Maximum		95.00	
		Range		22.00	
		Interquartile Range		.	
		Skewness		.000	1.225
		Kurtosis		.	.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85.00
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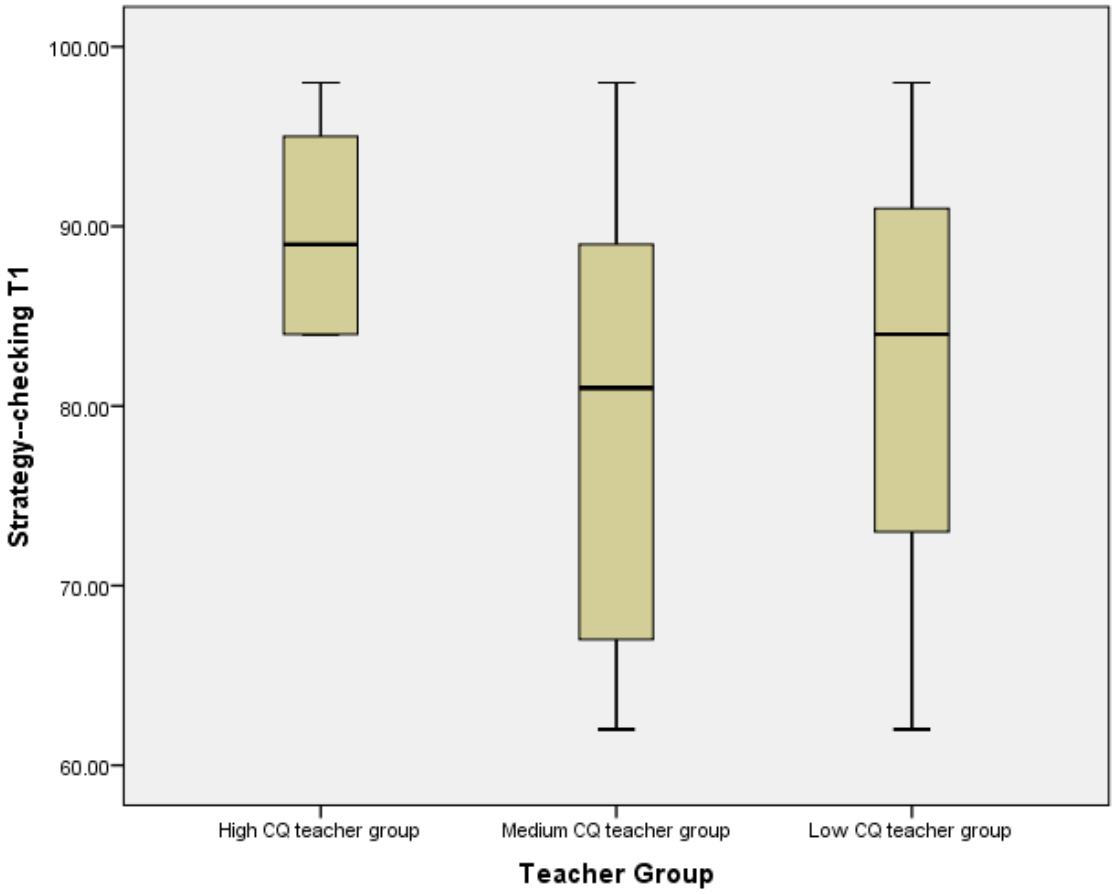
70.00
Strategy--awareness T1
11
2
13
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Strategy--checking T1	High CQ teacher group	Mean		90.0000	1.91485
		95% Confidence Interval for Mean	Lower Bound	85.5843	
			Upper Bound	94.4157	
		5% Trimmed Mean		89.8889	
		Median		89.0000	
		Variance		33.000	
		Std. Deviation		5.74456	
		Minimum		84.00	
		Maximum		98.00	
		Range		14.00	
		Interquartile Range		12.50	
		Skewness		.422	.717
		Kurtosis		-1.446	1.400
	Medium CQ teacher group	Mean		79.6667	5.52972
		95% Confidence Interval for Mean	Lower Bound	65.4521	
			Upper Bound	93.8813	
		5% Trimmed Mean		79.6296	
		Median		81.0000	
		Variance		183.467	
		Std. Deviation		13.54499	
		Minimum		62.00	
		Maximum		98.00	
		Range		36.00	
		Interquartile Range		25.50	
		Skewness		-.060	.845
		Kurtosis		-1.174	1.741
	Low CQ teacher group	Mean		81.3333	10.47749
		95% Confidence Interval for Mean	Lower Bound	36.2523	
			Upper Bound	126.4143	
		5% Trimmed Mean		.	
		Median		84.0000	
		Variance		329.333	
		Std. Deviation		18.14754	
		Minimum		62.00	
		Maximum		98.00	
		Range		36.00	
		Interquartile Range		.	
		Skewness		-.647	1.225
		Kurtosis		.	.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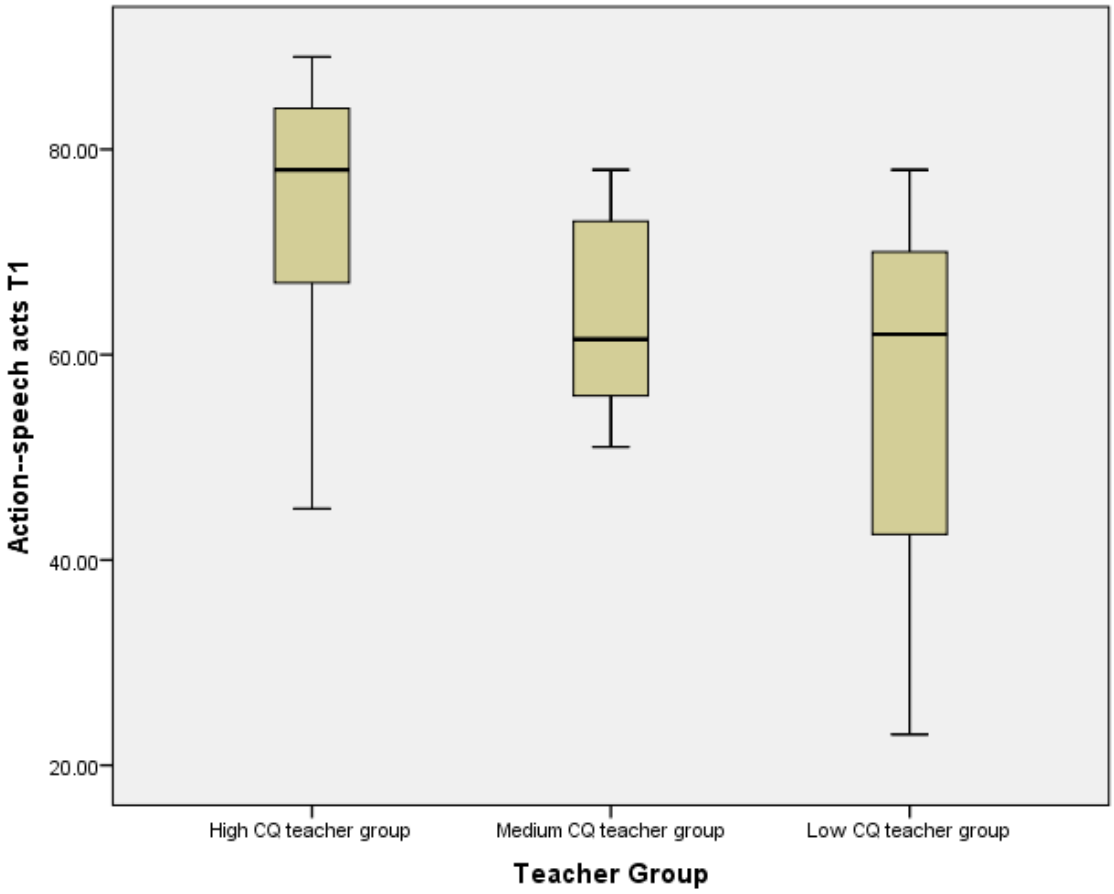
80.00
70.00
60.00
Strategy--checking T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

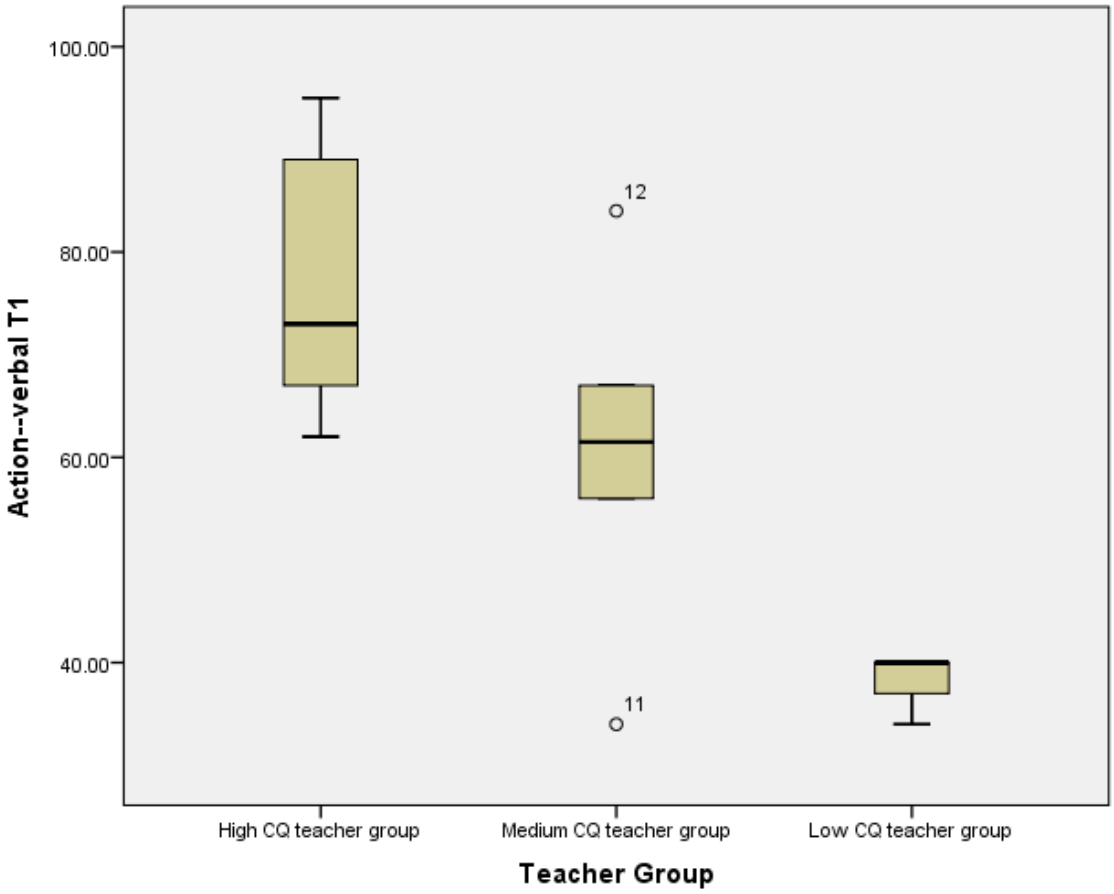
Descriptives

	Teacher Group			Statistic	Std. Error
Action--speech acts T1	High CQ teacher group	Mean		73.8889	4.57482
		95% Confidence Interval for Mean	Lower Bound	63.3393	
			Upper Bound	84.4385	
		5% Trimmed Mean		74.6543	
		Median		78.0000	
		Variance		188.361	
		Std. Deviation		13.72447	
		Minimum		45.00	
		Maximum		89.00	
		Range		44.00	
		Interquartile Range		19.50	
		Skewness		-1.268	.717
		Kurtosis		1.413	1.400
	Medium CQ teacher group	Mean		63.5000	4.40265
		95% Confidence Interval for Mean	Lower Bound	52.1826	
			Upper Bound	74.8174	
		5% Trimmed Mean		63.3889	
		Median		61.5000	
		Variance		116.300	
		Std. Deviation		10.78425	
		Minimum		51.00	
		Maximum		78.00	
		Range		27.00	
		Interquartile Range		19.50	
		Skewness		.276	.845
		Kurtosis		-1.942	1.741
	Low CQ teacher group	Mean		54.3333	16.33333
		95% Confidence Interval for Mean	Lower Bound	-15.9433	
			Upper Bound	124.6100	
		5% Trimmed Mean		.	
		Median		62.0000	
		Variance		800.333	
		Std. Deviation		28.29016	
		Minimum		23.00	
		Maximum		78.00	
		Range		55.00	
		Interquartile Range		.	
		Skewness		-1.130	1.225
		Kurtosis		.	.


80.00
60.00
40.00
20.00
Action--speech acts T1
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Action--verbal T1	High CQ teacher group	Mean		78.3333	4.21966
		95% Confidence Interval for Mean	Lower Bound	68.6028	
			Upper Bound	88.0639	
		5% Trimmed Mean		78.3148	
		Median		73.0000	
		Variance		160.250	
		Std. Deviation		12.65899	
		Minimum		62.00	
		Maximum		95.00	
		Range		33.00	
		Interquartile Range		25.00	
		Skewness		.244	.717
		Kurtosis		-1.713	1.400
	Medium CQ teacher group	Mean		60.6667	6.78069
		95% Confidence Interval for Mean	Lower Bound	43.2363	
			Upper Bound	78.0970	
		5% Trimmed Mean		60.8519	
		Median		61.5000	
		Variance		275.867	
		Std. Deviation		16.60923	
		Minimum		34.00	
		Maximum		84.00	
		Range		50.00	
		Interquartile Range		20.75	
		Skewness		-.390	.845
		Kurtosis		1.166	1.741
	Low CQ teacher group	Mean		38.0000	2.00000
		95% Confidence Interval for Mean	Lower Bound	29.3947	
			Upper Bound	46.6053	
		5% Trimmed Mean		.	
		Median		40.0000	
		Variance		12.000	
		Std. Deviation		3.46410	
		Minimum		34.00	
		Maximum		40.00	
		Range		6.00	
		Interquartile Range		.	
		Skewness		-1.732	1.225
		Kurtosis		.	.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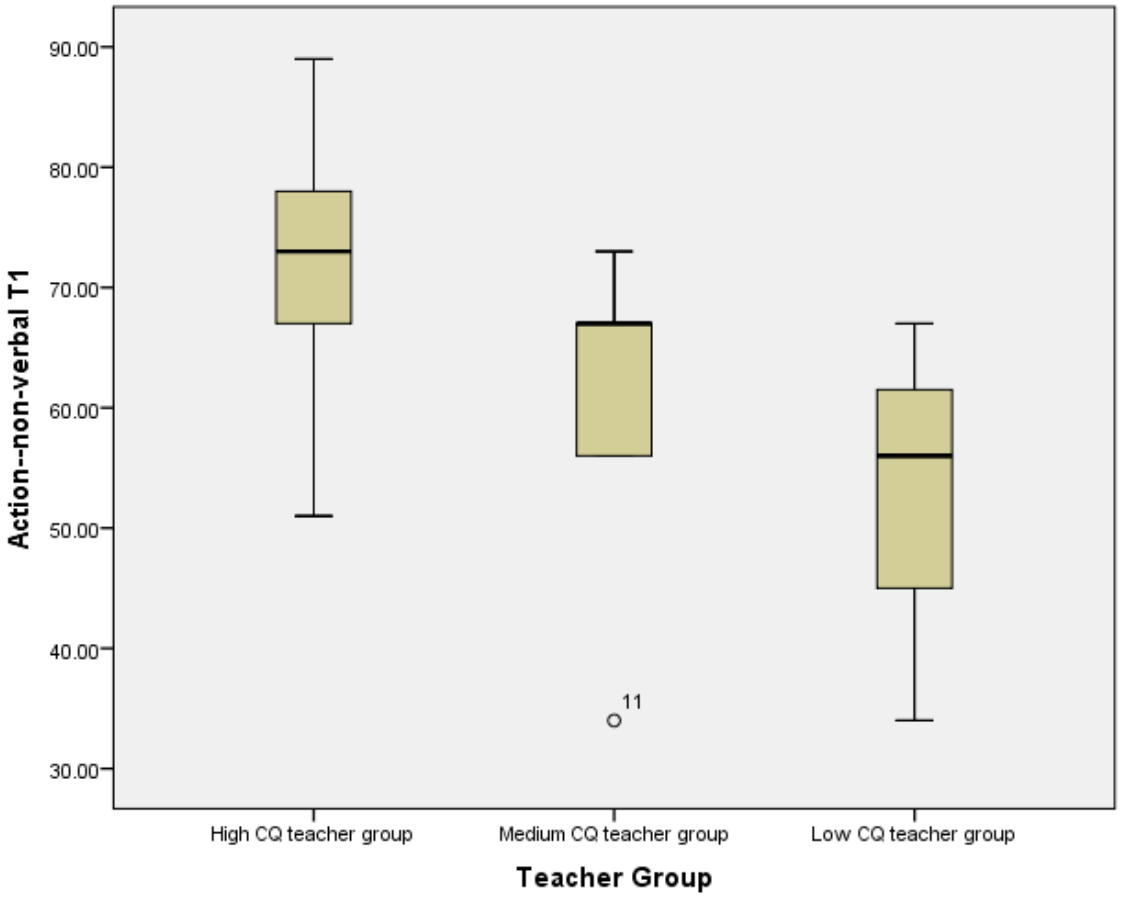
Action--verbal T1
12
11
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Descriptives

	Teacher Group			Statistic	Std. Error
Action--non-verbal T1	High CQ teacher group	Mean		71.5556	4.42879
		95% Confidence Interval for Mean	Lower Bound	61.3427	
			Upper Bound	81.7684	
		5% Trimmed Mean		71.7284	
		Median		73.0000	
		Variance		176.528	
		Std. Deviation		13.28638	
		Minimum		51.00	
		Maximum		89.00	
		Range		38.00	
		Interquartile Range		22.00	
		Skewness		-.664	.717
		Kurtosis		-.467	1.400
	Medium CQ teacher group	Mean		60.6667	5.78888
		95% Confidence Interval for Mean	Lower Bound	45.7859	
			Upper Bound	75.5475	
		5% Trimmed Mean		61.4630	
		Median		67.0000	
		Variance		201.067	
		Std. Deviation		14.17980	
		Minimum		34.00	
		Maximum		73.00	
		Range		39.00	
		Interquartile Range		18.00	
		Skewness		-1.728	.845
		Kurtosis		2.998	1.741
	Low CQ teacher group	Mean		52.3333	9.70109
		95% Confidence Interval for Mean	Lower Bound	10.5929	
			Upper Bound	94.0737	
		5% Trimmed Mean		.	
		Median		56.0000	
		Variance		282.333	
		Std. Deviation		16.80278	
		Minimum		34.00	
		Maximum		67.00	
		Range		33.00	
		Interquartile Range		.	
		Skewness		-.935	1.225
		Kurtosis		.	.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Action--non-verbal T1
11
High CQ teacher group
Medium CQ teacher group
Low CQ teacher group
Teacher Group

Appendix E

CQ teacher sample assessment scores with world wide norms and sub-dimensions

Sample cohort	*Teacher code*	*CQ Drive*	*CQ D int*	*CQ D ext*	*CQ D sefl-ef*	*CQ Knowl-edge*	*CQ K busi*	*CQ K values*	*CQ K sociolin*	*CQ K leader*	*CQ Strategy*	*CQ S planning*	*CQ S aware*	*CQ S check*	*CQ Action*	*CQ A speech*	*CQ A verbal*	*CQ A non-verbal*
High-CQ	FF	73	95	23	98	91	98	84	98	80	91	78	98	95	85	84	84	89
High-CQ	PM	98	98	98	98	64	67	89	67	34	80	67	84	89	65	62	67	67
High-CQ	LS	98	98	98	98	45	51	56	18	57	87	78	95	89	67	89	62	51
High-CQ	AW	78	95	56	84	69	84	98	18	74	82	67	95	84	71	67	73	73
High-CQ	MS	98	98	98	95	59	84	89	18	47	85	56	98	98	56	45	73	51
High-CQ	TL	98	98	98	98	83	84	95	84	70	87	78	98	84	87	84	95	84
High-CQ	UM	89	98	67	98	78	84	78	67	84	91	78	95	98	84	78	95	78
High-CQ	LG	82	73	89	84	68	84	95	18	77	85	67	98	89	73	78	67	73
High-CQ	HD	91	89	98	84	58	67	78	18	70	84	67	98	84	82	78	89	78
Medium-CQ	BD	76	73	78	78	55	84	67	3	70	82	78	84	84	67	78	56	67
Medium-CQ	TF	74	84	51	89	68	84	84	34	70	63	29	98	62	40	51	34	34
Medium-CQ	HB	52	67	23	67	42	67	56	3	44	71	51	84	78	65	56	84	56
Medium-CQ	MM	74	67	73	84	44	67	67	3	41	76	62	78	89	65	73	56	67
Medium-CQ	AC	93	98	78	98	55	67	67	34	51	69	56	84	67	67	67	67	67
Medium-CQ	SC	82	67	89	89	22	3	29	18	41	87	78	84	98	65	56	67	73
Low-CQ	ST	52	45	67	45	37	34	67	3	47	63	56	73	62	56	62	40	67
Low-CQ	MT	54	18	78	67	12	3	3	3	44	87	67	95	98	30	23	34	34
Low-CQ	HP	63	67	67	56	34	18	45	51	24	74	56	84	84	58	78	40	56
	Sample mean	***79.17***	***79.33***	***73.83***	***83.89***	***54.67***	***62.78***	***69.28***	***31.00***	***56.94***	***80.22***	***64.94***	***90.17***	***85.11***	***65.72***	***67.17***	***65.72***	***64.72***
	Site mean	***76.00***				***51.00***					***74.00***				***63.00***			
	High-CQ Mean	***89.44***	***93.56***	***80.56***	***93.00***	***68.33***	***78.11***	***84.67***	***45.11***	***65.89***	***85.78***	***70.67***	***95.44***	***90.00***	***74.44***	***73.89***	***78.33***	***71.56***
	Medium-CQ Mean	75.17	76.00	65.33	84.17	47.67	62.00	61.67	15.83	52.83	74.67	59.00	85.33	79.67	61.50	63.50	60.67	60.67
	Low-CQ Mean	56.33	43.33	70.67	56.00	27.67	18.33	38.33	19.00	38.33	74.67	59.67	84.00	81.33	48.00	54.33	38.00	52.33

Note: Colors on the spreadsheet above correspond to the quartiles of CQ self-reported assessment scores.

	Top 25% of world wide CQ assessment scores (top quartile or high-CQ)
	Middle 50% of world wide CQ assessment scores (middle 2 quartiles or medium-CQ)
	Lowest 25% of world wide CQ assessment scores (lowest quartile or low-CQ)