CLARIFYING MULTICULTURAL:
THE DEVELOPMENT AND INITIAL VALIDATION OF THE MULTICULTURAL TEACHER CAPACITY SCALE

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ABSTRACT

Jessie Montana Cain: Clarifying Multicultural: The Development and Initial Validation of the Multicultural Teacher Capacity Scale (Under the direction of Gregory J. Cizek)

Multicultural education emerged over three decades ago as a reform movement to address the inequities in schools that lead to disparate outcomes and experiences among marginalized students. However, the extent to which these aims have been realized has yet to be assessed. Although multicultural efforts are common, they are also inconsistent and often superficial (Banks, 2007; Cochran-Smith, 2003; Gay, 2002; Ladson-Billings, 2004; Sleeter, 2012). This, in turn, impacts teachers’ ability to address the aims of multicultural education in their classrooms. Thus, this present study sought first to operationalize what it means to be a multicultural teacher and then to develop and examine the psychometric properties of the Multicultural Teacher Capacity Scale (MTCS).

The MTCS assesses the extent to which teachers promote equity within their classrooms and beyond as described by 11 characteristics described along a continuum of five progressive levels. The instrument development and validation process involved three phases: instrument construction, instrument review and revision, and instrument evaluation. These three phases were designed to examine six hypotheses, of which three were adequately supported and three were not. The 11 characteristics were consistent with culturally relevant and culturally responsive pedagogies and agreed upon by field experts. The MTCS demonstrated adequate internal consistency. Exploratory factor analysis results suggested an 11-item, two-factor
solution: (1) beyond classroom context and (2) within classroom context. The results from an Item Response Theory analysis did not sufficiently support the matrix design of the MTCS due to sample size violations. The characteristics captured a limited range of multicultural teacher capacity ability levels, with more items needed to capture higher ability levels. Teacher responses revealed a proclivity towards social desirability.

The MTCS is a reliable and valid measure of multicultural teacher capacity for samples that mirror the development sample. The instrument should continue to be evaluated and refined to gather further support for use as a measure of multicultural teacher capacity. At present, the use of the tool is perhaps best suited for stimulating self-assessment and reflection for educators, informing teacher preparation programs, and guiding professional development.
To my angels, whose presence was needed and felt—my mother Grace, my grandfather Ralph, and my grandmother Pearl—who taught me to always be flyy no matter what, to “never get too big for my britches” and to always find beauty in the struggle.

To all of my students and all of my teacher friends who have inspired this journey.
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“...and let us run with perseverance the race that is set before us looking to Jesus the pioneer and perfecter of our faith...” (Hebrews 12: 1b-2a)

Selah.

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<tbody>
<tr>
<td>CDAI</td>
<td>Cultural Diversity Awareness Inventory</td>
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<td>CEIS</td>
<td>Cultural and Educational Issues Survey</td>
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<td>CRTSOE</td>
<td>Culturally Responsive Teaching Self-Efficacy and Outcome Expectancy Scale</td>
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<td>DDI</td>
<td>Diversity Dispositions Index</td>
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<tr>
<td>DRT</td>
<td>Standards-based Assessment Tool for Diversity-Responsive Teaching</td>
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<tr>
<td>EFA</td>
<td>Exploratory Factor Analysis</td>
</tr>
<tr>
<td>INTASC</td>
<td>Interstate New Teacher Assessment and Support Consortium</td>
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<td>IRB</td>
<td>Institutional Review Board</td>
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<td>IRF</td>
<td>Item Response Function</td>
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<td>IRT</td>
<td>Item Response Theory</td>
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<td>KMO</td>
<td>Kaiser-Meyer-Olkin</td>
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<td>MC-C</td>
<td>Marlowe-Crown Social Desirability Scale</td>
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<td>MAQ</td>
<td>Multicultural Attitudes Questionnaire</td>
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<td>MASQUE</td>
<td>Munroe Multicultural Attitude Scale Questionnaire</td>
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<tr>
<td>MDI</td>
<td>Multicultural Dispositions Index</td>
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<td>MES</td>
<td>Multicultural Efficacy Scale</td>
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<td>MMY</td>
<td>Mental Measurements Yearbook</td>
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<td>MSES</td>
<td>Multicultural and Special Education Survey</td>
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<td>MSS</td>
<td>Multicultural Sensitivity Scale</td>
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<td>MT</td>
<td>Multicultural Teaching Concerns</td>
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<td>MTC</td>
<td>Multicultural Teaching Competency Scale</td>
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<td>MTCS</td>
<td>Multicultural Teacher Capacity Scale</td>
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<td>Acronym</td>
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<tr>
<td>NAME</td>
<td>National Association of Multicultural Education</td>
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<td>NCATE</td>
<td>National Council for Accreditation of Teacher Education</td>
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<tr>
<td>PCM</td>
<td>Partial Credit Model</td>
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<td>PDAA</td>
<td>Professional and Personal Beliefs about Diversity</td>
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<td>QDI</td>
<td>Quick Discrimination Index</td>
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<td>Quick-REST</td>
<td>Quick-Racial and Ethical Sensitivity Test</td>
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<td>RSM</td>
<td>Rating Scale Model</td>
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<td>Root Mean Squared Deviation</td>
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<td>Social Distance Scale</td>
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<td>Teacher Belief Survey</td>
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<td>TCBS</td>
<td>Teacher Cultural Beliefs Scale</td>
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<td>TMAS</td>
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CHAPTER 1: INTRODUCTION TO STUDY

Education has been considered the great equalizer, the beacon of hope for the poor and the powerless and the way to life, liberty, and the pursuit of happiness (Noguera, 2003). Among its many promises has been to ensure that all citizens are able to protect their political and economic rights through the education of the whole population (Spring, 2001). These themes of equality and equity are echoed in national initiatives such as No Child Left Behind (2001), and the current Common Core initiative (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010).

Despite these initiatives, research suggests that some children are still left behind, and students’ outcomes and experiences are not common. For example, when compared to the teachers of White middle-class students, the teachers of Black, Hispanic, and economically disadvantaged students are more likely to be less qualified (Boyd, Lankford & Wyckoff, 2008; Ingersoll, 2002) and to hold lower expectations and negative perceptions of their students’ academic ability (Ferguson, 2003; Tenebuam & Ruck, 2007). Further, these students are also less likely to have access to and enroll in more rigorous coursework (Attewell & Domina, 2008; Oakes, 1992; Ogbu, 2003) and are more likely to receive harsher disciplinary action (Davis & Jordan, 1994; Skiba, et al., 2002) than their counterparts. In terms of educational outcomes, these students drop out of high school at a higher rate and attend (and persist through) post-secondary institutions at lower rates than White and economically advantaged students (Hurtado, Inkelas, Briggs, & Rhee, 1997; Orfield & Lee, 2005; Pathways to College Network, 2007).
These findings call into question the educational system and demonstrate that the promise of equity and equality has yet to be realized.

**The Emergence of Multicultural Education**

Over three decades ago, and in conjunction with the Civil Rights Movement, multicultural education emerged as a reform movement to address educational inequities in schools that lead to disparate experiences and outcomes for students based on their cultural characteristics and circumstances (Banks, 2007b; Cochran-Smith, 2003; Gay, 2002; Ladson-Billings; 2004; Sleeter, 2012). Maintaining that all students should have equal opportunities to learn despite the racial, ethnic, social-class, or gender group to which they belong, multicultural education seeks to provide equitable education for all students (Banks, 2010). Efforts of the reform movement challenged the focus in schools on cultural deficits where students and their families were to blame and advocated for an approach that highlighted students’ cultural difference where the responsibility was placed on schools—not students and their families—to address the inequities.

Multicultural education paved the way for significant changes in education such as the increase in educational programs, teacher education programs, conceptual frameworks, and curriculum standards that consider the role of culture in education (Cochran-Smith, 2003). One major area of accomplishment is the evolution of the National Council for Accreditation of Teacher Education (NCATE) standards, which highlight the roles that teachers play in educational reform. The role of culture and diversity was among the many changes of the NCATE standards. The first mention of multicultural in the standards was in 1979, when institutions were required to show evidence of planning for multicultural education curriculum (Gollnick, 1991). In 1981, the standards progressed to requiring evidence of implementation of a
multicultural education curriculum. Ten years later, there was a transition from a separate standard on multicultural education to inclusion among four different standards: field-based and clinical work; student admission; faculty qualification; and professional studies (Gollnick, 1991). In the most recent revision of the NCATE standards, teachers are required to demonstrate their knowledge, skills, and dispositions to help all students learn. They are also required to have experiences with diverse faculty, candidates, and P-12 students (NCATE, 2010).

The Gap Between Intention and Implementation

Even though multicultural education is a commonly heard phrase, the ways in which it has been implemented deviate greatly from the intended purpose of addressing the inequities in schools that lead to disparate outcomes and experiences for students. Many multicultural education efforts have been sanitized, removing the transformational aspects thereby leading to faulty and superficial implementation adding to the confusion around what the term *multicultural education* means. Ideally, multicultural initiatives would instill a sociopolitical consciousness that would raise awareness of and ways to address the inequitable experiences and outcomes of students; such is not the case. Since the inception of multicultural education studies have been conducted to better understand how the intended purpose is realized through literature (Sleeter & Grant, 1987), teaching standards (Akiba, Cockrell, Simmons, Hans, & Agarwal, 2010), and teacher education courses (King & Butler, 2015).

With the aim of conceptual clarity and evaluation, Sleeter and Grant (1987) synthesized and analyzed 128 books and articles on multicultural education. They found that among the texts there were variations in how each approached multicultural education. These five approaches were developed into a taxonomy ranging from a deficit to a critical perspective. The first approach, *teaching the culturally different*, is grounded in the belief that students of color are
deficient and need to support to fit into mainstream culture. The second approach, human relations, focuses on the appreciation for and understanding of differences between cultural groups as a means to address inequities. The third approach, single-group studies, ignores the multiple forms of diversity by focusing on developing curricular units on one cultural group. In contrast, the fourth approach, multicultural education, expands that focus to develop a concern for the equitable opportunities and experiences for multiple cultural groups. The fifth approach, multicultural and social reconstructionist, represents multicultural education as it was intended and builds on the fourth approach by also seeking to develop social and critical consciousness about the inequities in society. Of the 128 books and articles reviewed, only 10 were categorized as multicultural and social reconstructionist, which demonstrates how efforts have deviated from the intended purpose of multicultural education. A common critique among the articles was the lack of instructional guidance. The authors noted that many discussed changes in curriculum but failed to address how teachers translate these approaches to classroom practice.

Teacher education programs have the potential to play a major role in reforming schools and impact how teachers conceptualize multicultural education. In a more recent study, Akiba and her colleagues (2010) examined the diversity requirements included in teacher certification and program accreditation standards in all fifty states and Washington, DC using the five typologies. Their findings were similar to Sleeter and Grant’s (1987) study, which was conducted more than twenty years prior. The multicultural and social reconstructionist approach was the least common approach with only five states. They found that the diversity requirements among the institutions reviewed emphasized the recruitment of diverse candidates (16 states) or diverse faculty (13 states) and that it was less common to require an assessment of teacher candidates’ diversity-related knowledge and skills (9 states). Least common of all is the requirement of
diversity-related courses (6 states). They also described these diversity-related statements as “ambiguous in nature since they focused on the goals rather than approaches or methods to achieve the goals” (p. 453).

With weaknesses in multicultural literature and diversity-related standards, it follows then that diversity-related courses will approach multicultural and diversity-related issues in an inconsistent and superficial manner. King and Butler (2015) examined how well teacher education programs addressed issues of diversity in their curriculum. Through a content analysis of diversity-related courses in a southeastern state for preservice teachers they found that even though diversity-related courses are increasingly more popular, their importance is relatively low. None of the fourteen institutions examined threaded multicultural and diversity-related content throughout their curriculum. In fact, only four required students to have 20% or more of their course load in courses with an explicit diversity-related or multicultural component and overwhelming majority (71%) required significantly less than one-fourth.

Taken together, these findings demonstrate the complexity in translating the aims of multicultural education into practice. If state standards and schools of education are inconsistent and superficial in their translation of multicultural education, then it turns that teachers will also be inconsistent and superficial in their implementation of multicultural education in their classrooms.

**Teachers’ (In)Ability to Translate Multicultural Education**

Despite the common use of multicultural and the overwhelming presence of diversity related standards and courses, there is little indication that teachers are actually aware of what it means to be multicultural and to address diversity-related issues (King & Butler, 2015; Ladson-Billings, 2011). Teachers consistently report not feeling prepared for their racially, ethnically,
and economically diverse classrooms (Buehler, Gere, Dallavis, & Haviland, 2009; Garmon, 2004; Milner, 2005). In a national survey of teachers, only 41% reported participating in professional development related to diversity and only 32% of those felt prepared to address the needs of students from diverse cultural backgrounds (Gruber, Wiley, Strizek, & Burian-Fitzgerald, 2002).

Further, this lack of preparation is evident in the classroom practices of some teachers. For example, in 2009, a social studies teacher bound the hands of two Black girls in her classroom and made them crawl under a desk in order to simulate the experience of slavery (CBS, 2009). In 2011, a teacher made a Black boy the slave during a mock slave auction (WBNS-10TV, 2011). In a more recent attempt to create an interdisciplinary lesson between math and social studies, third grade students were asked questions that included calculating the number of beatings a slave got in a week and how many baskets of cotton were picked (ABC News, 2012). It is not enough to say these are poor examples of multicultural education; we must pursue what it means to also be multicultural, not just do multicultural.

**Problem Statement**

Despite accomplishments in multicultural education to address the cultural diversity of students, the historically marginalized students that multicultural education was designed to support still experience disparate educational outcomes. Ogbu (1992) and Zirkel (2005) raised a question that has yet to be answered: to what extent does multicultural education improve the academic performance of historically marginalized students? As Cochran-Smith (2003) notes, current conversations regarding education are centered on outcomes, impacts, evidence, bottom lines, results, effectiveness, and value-added—and multicultural education has fallen short. Since its inception, scholars have called for empirical and large-scale evidence in support of
multicultural education (Cochran-Smith, 2003; Ladson-Billings, 1999; Sleeter, 2012), but despite its contributions, empirical research remains limited. The research that has been conducted has primarily focused on preservice and not inservice teachers, further limiting the body of evidence that might support the impact of multicultural education. Sleeter (2012) specifically called for a valid assessment of teachers’ ability to be multicultural educators.

Banks (2010) describes teachers and not their practices as multicultural. He explains that multicultural education is not only detrimental, but also ultimately “ineffective in the hands of teachers who have negative attitudes towards different racial, ethnic, and cultural groups” (p. 22). He argues that multicultural education is effective only to the extent that teachers embody characteristics, such as an understanding of their own cultural experience, engagement in critical self-analysis, ability to look beyond physical characteristics, and knowledge of various diversity-related theories, that are needed to achieve the aims of multicultural education (Banks & Banks, 1995). Herein, these teachers will be referred to as multicultural to refer to a personal characteristic and orientation, a distinction from the common use to describe the presence of multiple cultures.

**Purpose of Study**

One approach to evaluating the impact of multicultural education is to identify measurable outcomes and to assess the extent to which teachers are multicultural. This study focuses on the latter. In order help generate the research that is needed and to move from small-scale studies that focus on student engagement (Sleeter, 2012), a valid assessment of multicultural teachers is needed. In this study, such a tool was developed and initial evidence of its psychometric properties was gathered.
Although scholars have grappled with assessment within the field of multicultural education, to date there is no assessment that is grounded in multicultural theory, captures a wide array of multicultural concerns, focuses on teachers’ professional growth, and has psychometric support. Therefore, the aim of this study is twofold. The first aim is to provide an operational definition of a multicultural teacher based on a synthesis of empirical and theoretical literature on multicultural education and related fields. The second aim is to develop and then examine the psychometric properties of the Multicultural Teacher Capacity Scale (MTCS) developed in conjunction with the operational definition of a multicultural teacher. Multicultural capacity refers to the extent to which teachers are multicultural, as defined by a set of theoretically supported characteristics--knowledge, skills, and dispositions--that promote educational equity.

**Research Questions**

Operationalizing multicultural and examining the psychometric properties of the MTCS are the main objectives of this study. To meet these objectives, the following research questions will be addressed:

1. According to contemporary theory, what are the characteristics of a multicultural teacher, as defined by dispositions, knowledge, and skills? and

2. What are the psychometric properties of a newly developed assessment of teachers’ multicultural teacher capacity?

**Significance of Study**

This study contributes to the field of multicultural education in two ways. First, an extensive literature review and synthesis will help to clarify the concept and definition of multicultural education. The immediate impact of this study is the consolidation of a vast amount literature and an operational definition of multicultural so that the field can move from
what to how. The identification of multicultural teacher characteristics and the development of a self-assessment tool will streamline conversations and provide a common language and tool for multicultural teacher and teacher educators. The broader impacts of this study include implications for teacher educators who are charged with preparing teachers for the classroom, for principals and school administrators who provide professional development for inservice teachers, and for teachers themselves who are often told what they should do, but not how they should do it.

Second, instrumentation for assessing the construct of multicultural teacher capacity will move the education field closer to examining the impact of multicultural education on student outcomes. A theoretically grounded and empirically supported instrument can be used to identify teachers who are multicultural. These teachers and identified characteristics can then be used to understand their impact on student experiences and outcomes.

**Definition of Key Terms**

Culture, sociopolitical context, equity, and equality are key terms that are essential for understanding multicultural education and the description of a multicultural teacher. Although it is central to multicultural education, culture is an elusive concept. Culture is often incorrectly used as a proxy for race or ethnicity. As Ladson-Billings (2006) described, culture is “randomly and regularly used to explain everything” (p. 104). Even within the vast multicultural literature, culture is often used without definition or with varying definitions. In this study culture refers to the “ever-changing values, traditions, social and political relationships, and worldview created, shared, and transformed by a group of people bound together by a combination of factors that can include common history, geographic location, social class, and religion” (Nieto, 2008, p. 129). An underlying assumption in this study is that these ever-changing values, traditions,
social and political relationships and world view are influenced by characteristics such as race, ethnicity, gender, social class, ability, sexuality, language, and religion (Ladson-Billings, 2004; Nieto, 1999; Yosso, 2006). Further, they are embedded in a sociopolitical context. Divorcing culture from the sociopolitical context leads to a merely aesthetic perspective of culture that focuses on artifacts and holidays, whereas turning attention to the laws, regulations, policies, practices, and ideologies that influence culture enables a critical perspective (Nieto, 1999). Taken together, these definitions assert that everyone has a culture and that it is both dynamic and contextual which lays the foundation for understanding how it influences teachers’ and can lead to disparate outcomes and experiences for students.

Similar to culture, equality and equity are equally elusive concepts that are often conflated. Equality refers to equal, or same, standing or treatment regardless of circumstances. However, multicultural education is more than a matter of cultural congruence: Equity is the ultimate goal, which differs from equality. Equity recognizes that resources are not distributed equally to all and thereby refers to the redistribution of resources to level the playing field. Nieto (2000), in her seminal text Placing Equity Front and Center, describes equity as the process through which equality is achieved.

Drawing from Banks (2010), multicultural education is defined as a reform movement that involves policies, practices, and people that affirm issues of identity and difference as well as challenge issues of power and privilege, which is geared toward creating equitable experiences and outcomes. Thus, a multicultural teacher has the capacity, or the dispositions, knowledge, and skills that lead to more equitable experiences and outcomes in their classrooms and beyond. Understanding that multicultural is not a binary capacity also implies the ability to develop and progress along a continuum (McDiarmid & Clevenger-Bright, 2008). Accordingly,
the Multicultural Teacher Capacity Scale assesses the extent to which teachers see themselves as multicultural as outlined by a set of key characteristics.

Organization of Study

This study is organized into five chapters. This chapter has provided a brief introduction to the literature and the need for an assessment to measure multicultural teacher capacity. The problem statement, purpose, limitations, and significance of the study were also presented.

The second chapter presents a review of the literature and sets the stage for the proposed study. It begins with a presentation of the rationale for using multicultural education as the framework to understand teacher characteristics and educational equity, and then focuses on the need for a valid assessment of teacher characteristics within the field of multicultural education. A systematic review of existing assessments is provided to support the need for the Multicultural Teacher Capacity Scale. Based on the systematic review of existing assessments, the section concludes with a description of the proposed instrument.

The third chapter describes the methodology of the study. Instrument development and validation procedures are organized into three phases (in successive order): instrument development; instrument review and revision; and instrument evaluation. For each phase, the sample, procedures, and analysis are described.

The fourth chapter reports the findings of the research questions guiding the main study. Specifically, a description of participants and results from each analysis is included. The conceptual model for multicultural teacher capacity is presented in detailed to provide a deeper understanding of the instrument that was developed as a part of this study.
The final chapter discusses of the findings paired with implications for teachers, teacher educators, and administrators. Limitations of the study are also addressed in greater detail and the study concludes with directions for future research.
CHAPTER 2: REVIEW OF LITERATURE

In the first chapter, I explained the importance of multicultural education and the need for assessment of the extent to which teachers possess the characteristics that promote educational equity. The overall purpose of this chapter is to support the need for the development of a self-assessment of teachers’ multicultural characteristics. First, I lay a foundation by discussing the rationale for using multicultural education, among other options, as a framework for educational reform. Next, I review culturally informed pedagogies broadly and then narrow to a focused discussion of the two guiding pedagogies: culturally relevant and culturally responsive. I then summarize the current critiques of multicultural education, and discuss the importance of teacher characteristics on students’ experiences and outcomes. I conclude with an examination of the status of assessment related to teachers’ multicultural characteristics order to establish the need for a new instrument to measure these characteristics.

Multicultural Education as a Framework for Educational Reform

Often multicultural education is introduced by an announcement of the increasing rates of racial and ethnic diversification, which Ladson-Billings (1999) referred to as the perversity of diversity. Yet, the history of multicultural education, tied to the Civil Rights movement of the 1960s, reveals a different impetus. At the time of its emergence, the U.S. was undergoing race-related changes; one of the most significant was the desegregation of schools in 1954 (Brown versus the Board of Education). Prior to Brown, Plessy vs. Ferguson (1896) allowed separate but equal schools to be housed within and serve their racially segregated communities (Tyack & Lowe, 1986; Webb, 2006). Although Plessy supported “separate but equal” facilities, the reality
was not such. Black schools were not afforded the equal resources and staffing of White schools—a condition that is still evident today. When *Brown* was implemented, cultural differences and societal factors were not taken into account. In the desegregated classrooms of post-*Brown* many teachers (most of whom were White) were not used to Black students in their classrooms and Black students were not used to sharing a classroom space with White students and being taught by a White teacher thereby leading to alienation for the Black student (Zirkel & Cantor, 2004). As a result of this desegregation, many Black students were forced to leave their community and their culturally congruent schools to attend White schools. With the implementation *Brown*, cultural differences and societal factors were not taken into account. Rather, the result was a numerical solution to a social problem (Ladson-Billings, 1999) whose impact continues today.

**The Purpose of Multicultural Education**

Early multicultural education efforts responded to the deficit-based theories that referred to students of color as culturally deprived or culturally disadvantaged (Banks, 2004). The premise of cultural deprivation theory is “the roots of [culturally deprived children’s] problem may be in large part traced to their experiences in homes which do not transmit the cultural patterns necessary for the types of learning characteristics of the schools and the larger society” (Bloom, Davis, & Hess, 1965, p. 4, as cited by Banks, 2004). Ultimately, cultural deprivation theorists insisted that students and their families were the problem and that it was the school’s responsibility to fix them. In response, multicultural education turned the conversation from a theory of cultural deficiency to a theory of cultural difference, thereby placing the onus on the institution of education to address the inequities in schools instead of blaming students and their families. Proponents contended that the school culture did not provide a quality education for all
students (Banks, 2004; Gay, 2004; Ladson-Billings, 1999) and lead to disparate experiences and outcomes.

The overarching aim of multicultural education is to make changes in education so that students receive a quality education, regardless of their cultural characteristics. Despite the initial focus on race, multicultural education has expanded to include cultural characteristics such as gender, ability, social status, religion, language, and sexual orientation (Banks, 2004; 2007). According to Banks (2010), a quality education is achieved when five outcomes are realized: 1) a greater self-understanding, 2) development of the knowledge, skills, and attitudes to function in the community, mainstream society, and across cultures, 3) reduced pain that some feel due to discrimination based on cultural characteristics, 4) access to cultural alternatives, and 5) academic skills to function in a global and flat world.

**Current Status of Multicultural Education**

Even though multicultural education has been praised for calling attention the role schools in promoting educational equity, a commonly voiced concern is the lack of attention to assessment. In her reflection on multicultural education in the 21st century, Cochran-Smith (2003) noted the various contributions related to teacher education and teacher standards, but also admitted that multicultural education has fallen short. Her argument is that whereas educational conversations in this era are centered on accountability and student outcomes, multicultural education has not had the same focus. In defense of multicultural education, Gay (2004) pointed out that the movement is relatively young and refers to it as “unfinished” (p. 191). Her claim that the field is moving from a curricular to a pedagogical focus aligns with the current push for more empirical studies (Ladson-Billings, 1999; Sleeter, 2012; Sleeter & Owuor, 2012). Recently, Sleeter (2012) reviewed studies of multicultural teachers in classrooms and discovered
that most were small-scale or case studies, which do not provide the support necessary to generalize claims regarding student outcomes.

**Importance of Teacher Characteristics**

Teachers play a significant role in the success of school reform movements (Darling-Hammond, 2010). It is therefore important to consider teacher characteristics in the multicultural education reform movement. The present study does not claim that teachers alone are responsible for student educational outcomes and experience, because there are societal and institutional structures in place that also play a role (DeCuir & Dixon, 2004; Nieto, 2000; Nieto & Bode, 2012). However, of the school factors that affect experiences and achievement, teacher characteristics and quality instruction have been regarded as the most critical (Hightower, Delgado, Lloyd, Wittenstein, Sellers, & Swanson, 2011; United States Department of Education, 2011). To that point, Shulman (1983, as cited by Darling-Hammond, 2010) claimed that:

> The teacher remains the key. The literature on effective schools is meaningless, debates over educational policy are moot, if the primary agents of instruction are incapable of performing their functions well. No microcomputer will replace them, no television system will clone and distribute them, no scripted lesson will direct and control them, no voucher system will bypass them (p. 302).

Research findings also support the long- and short-term impact of teachers on students’ experiences and outcomes. A meta-analysis of 99 studies revealed that positive student-teacher relationships have a statistically significant positive impact on school engagement and academic achievement (Roorda, Koomen, Spilt, & Oort, 2011). In a study examining the impact of teacher quality on student's long-term outcomes, Chetty and his colleagues (2011) analyzed more than 20 years of data for nearly one million fourth- through eighth-grade students in a large urban school district. Findings suggested that teacher quality was closely associated with college enrollment, college persistence, salaries, socio-economic status, and other quality of life factors.
Given the importance of teachers, the next section examines the ways in which teacher characteristics related to multicultural themes have been examined in order to understand the status of assessment within the field of multicultural education. Of particular interest for this study are instruments that were developed to assess teacher characteristics related to elements of multicultural education. I assert that a valid assessment of multicultural teachers will be the first step to increasing empirically based studies of the impact of multicultural teachers on student experiences and outcomes.

Using Multicultural Education to Identify Teacher Characteristics

As described, multicultural education emerged as a reform movement to address the educational inequity in schools that leads to disparate experiences for students because of their cultural characteristics (Banks, 2007b; Cochran-Smith, 2003; Gay, 2002; Ladson-Billings; 2004; Nieto, 2000; Sleeter, 2012). However, as it stands, multicultural education is too broad a concept. Banks (2007b) described multicultural education as three things: an idea, a process, and a reform movement. It is noteworthy that he did not describe it as a pedagogy, which would provide teachers with the tools and techniques needed for teaching (Shulman, 1986). To extend multicultural education several culturally centered pedagogies such as culturally congruent (Mohat & Erickson, 1981), culturally appropriate (Au & Jordan, 1981), culturally compatible (Jordan, 1985; Vogt, Jordan, & Tharp, 1987), culturally relevant (Ladson-Billings, 1995), culturally responsive (Gay, 2002), and culturally sustaining (Paris, 2012) emerged. Although each of these approaches suggest that culture plays a significant in education, their foundation, description and elements vary (see Table 1). Culturally relevant and culturally responsive approaches have emerged as the most widely cited among the various approaches. These two approaches are described in greater detail in the section that follows.
<table>
<thead>
<tr>
<th>Foundation</th>
<th>Description</th>
<th>Elements</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culturally Congruent (Mohatt &amp; Erickson, 1981)</td>
<td>Observation of student teacher interactions with Navajo children</td>
<td>Uses Native American and Anglo language patterns</td>
<td>227</td>
</tr>
<tr>
<td>Culturally Compatible (Jordan, 1985; Vogt, Jordan, &amp; Tharp, 1987)</td>
<td>Successful practices with teachers of Hawaiian students</td>
<td>Use of students culture to guide instruction</td>
<td>82</td>
</tr>
<tr>
<td>Culturally Relevant (Ladson-Billings, 1995)</td>
<td>Ethnographic study 8 successful teachers of African-American students</td>
<td>Problematizes teaching and encourages teachers to question student-teacher relationships, curriculum, schooling, and society</td>
<td>2264</td>
</tr>
<tr>
<td>Culturally Responsive (Gay, 2002)</td>
<td>Synthesis of literature regarding the underachievement of students of color</td>
<td>Uses the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching for more effective teaching</td>
<td>880</td>
</tr>
<tr>
<td>Reality Pedagogy (Emdin, 2011)</td>
<td>Extension of culturally relevant pedagogy and critical pedagogy and build on research in urban science classrooms</td>
<td>Utilizes the reality of students within a classroom and supports the teacher in using their realities as anchors for instruction</td>
<td>10</td>
</tr>
<tr>
<td>Culturally Sustaining (Paris, 2012)</td>
<td>Based on a critique of existing culturally centered pedagogies and builds on culturally relevant pedagogy</td>
<td>Seeks to perpetuate and foster linguistic, literate, and cultural pluralism as a counter to assimilationist practices in education</td>
<td>79</td>
</tr>
</tbody>
</table>
Culturally Informed Approaches

A limitation of multicultural education is the lack of pedagogical guidance, which is addressed by culturally relevant and culturally responsive pedagogies. As illustrated in Table 2, the elements of both pedagogies align with the goals of multicultural education. Although these two pedagogies extend multicultural education and share the goal of addressing inequities in the classroom, the ways in which they address inequities varies. Despite their distinction, culturally relevant (Ladson-Billings, 1995) and culturally responsive (Gay, 2002) are often conflated. For example, Gallavan (1998) used culturally responsive as the umbrella term for all culturally centered pedagogies. Barnes (2006) lists the elements of culturally relevant pedagogy while citing Gay (2002); Siwatu (2008) cited Ladson-Billings (1994) for culturally responsive pedagogy; and, Fitchett, Starker, and Salyers (2012) used culturally responsive in the title of their manuscript but referred to culturally relevant throughout the body of the text. A distinction between the two pedagogies is needed in order to understand their contribution to the study. To accurately summarize and differentiate the pedagogies, the descriptions below rely heavily on the works of the primary scholars of these theories: Gloria Ladson-Billings (culturally relevant) and Geneva Gay (culturally responsive). Culturally relevant pedagogy was introduced prior to the introduction of culturally responsive pedagogy, and is therefore described first.
### Table 2

**Alignment of Multicultural Goals With Culturally Responsive and Relevant Elements**

<table>
<thead>
<tr>
<th>Goals of Multicultural Education</th>
<th>Ability to function in community, society and across cultures</th>
<th>Reduced pain due to discrimination</th>
<th>Exposure to cultural alternatives</th>
<th>Academic Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greater self-understanding</strong></td>
<td></td>
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<tr>
<td><strong>Ability to function</strong></td>
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<tr>
<td><strong>In community</strong></td>
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<tr>
<td><strong>Society</strong></td>
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<tr>
<td><strong>Across cultures</strong></td>
<td></td>
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<tr>
<td><strong>Reduced pain</strong></td>
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<tr>
<td><strong>Due to discrimination</strong></td>
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<tr>
<td><strong>Exposure</strong></td>
<td></td>
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<tr>
<td><strong>To cultural alternatives</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Academic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skills</strong></td>
<td></td>
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</tbody>
</table>

| Culturally Relevant Pedagogy   |                                                          |                                  |                                  |                |
| **Student achievement**        | X                                                         |                                  |                                  |                |
| **Cultural competence**        | X                                                         | X                                | X                                |                |
| **Critical consciousness**     | X                                                         |                                  | X                                |                |
| **Culturally Responsive Pedagogy** |                                                        |                                  |                                  |                |
| **Culturally diverse knowledge-base** | X                                                     |                                  |                                  |                |
| **Culturally relevant curricula** | X                                                      | X                                | X                                |                |
| **Culturally caring and learning community** | X                                                 |                                  |                                  |                |
| **Cross-cultural communication** | X                                                        |                                  |                                  |                |
| **Cultural congruity**         | X                                                         | X                                |                                  |                |

**NOTE**: Shading indicates the elements of culturally relevant or culturally responsive that overlap with the themes of multicultural education.

**Culturally Relevant Pedagogy**

Ladson-Billings (1995) introduced culturally relevant pedagogy to address student achievement and to also help students accept and affirm their cultural identity, while simultaneously developing critical perspectives that challenge inequities in schools. Culturally relevant pedagogy emerged as a grounded theory based on Ladson-Billings’ (1990) ethnographic work with six successful teachers of African-American students. The impetus for her work was the increase in literature that described African-American students as disadvantaged. As such, she based her work on Irvine’s (1990) concept of cultural synchronization, which described the necessary interpersonal contexts that African-American students need to be successful. Irvine challenged cultural deficit explanations and considered many factors to understand African-
American students and school failure such as teacher-student interpersonal contexts, teacher and student expectations, institutional contexts, and the societal contexts.

Although the elements of culturally relevant pedagogy are student-centered, Ladson-Billings (1999) considered an ethic of care to be prerequisite for being a culturally relevant teacher. In a later article, Ladson-Billings (2011) expanded on the idea of care, describing it as informed empathy that goes beyond feeling *with* to feeling *for*. As she explained, feeling with does not require a sense of accountability, whereas feeling for does. It is presumed that this is a prerequisite for teachers to work toward the elements of culturally relevant pedagogy.

The first element is to produce students who can achieve academically (Ladson-Billings, 1999). The teachers in her study considered academic success to be one of their primary responsibilities, which is consistent with Banks’ (2010) goal of students receiving the academic skills necessary to function in society. In light of the research that found that students’ academic success came at the expense of their cultural and psychosocial well-being, Ladson-Billings included cultural competence as the second element. Contrary to other definitions of cultural competence as knowing others, her definition refers to the maintenance of cultural integrity, or an understanding and appreciation of self. This element is similar to Banks’ (2010) greater self-understanding, which may not occur when students’ cultures and identities are absent or presented negatively. By actively supporting students’ psychosocial well-being, teachers help to reduce the pain of discrimination as envisioned by Banks (2010). The final element is to develop students who can understand and critique the current social order, thereby resulting in sociopolitical consciousness. Successful implementation of culturally relevant pedagogy “prepare[s] students to combat inequity by being highly competent and critically conscious” (2011, p. 34). Understanding that inequalities exist in society, this skill supports Banks’ (2010)
goal of students possessing the ability to function in society and across cultures. Overall, Ladson-Billings offers a pedagogical approach that is inherently critical and transformative. It moves beyond interpersonal relationship within the classroom to action within and beyond. Her approach differs from, but complements, Gay’s (2002) culturally responsive pedagogy. Where culturally relevant pedagogy focuses on student outcomes and was developed based on the study of teachers of African-American students, cultural responsive focuses on teacher outcomes and was developed based on a synthesis of literature on a culturally diverse population.

**Culturally Responsive Pedagogy**

Gay (2002) designed culturally responsive pedagogy to improve the school success of ethnically diverse students by providing teachers with the necessary knowledge and skills. She based her approach on multidisciplinary research, theoretical claims, practical experiences, and personal stories regarding the underachievement of African-, Asian-, Latin-, and Native American students. The underlying assumption of this pedagogy is that using students’ cultural and personal experiences in the classroom will result in improved academic achievement, as evidenced by increased interest and personal connection.

Implementing culturally responsive pedagogy calls for five essential elements, all of which align with Banks’ (2010) goals of multicultural education. The first element is developing a knowledge base about cultural diversity, or the cultural alternatives espoused by Banks (2010). Gay (2002) recommended explicit knowledge about ethnic groups (e.g., traditions, learning styles, contributions, etc.) and about multicultural education, theory research and scholarship. As envisioned, this knowledge would lead to three of Banks’ (2010) goals: increase the academic success of students, provide them with cultural alternatives, and help them to function in society. Further, it guides culturally relevant curriculum development, the second element. In designing
culturally relevant curricula, teachers should be able to assess the multicultural strengths and weaknesses of curriculum and modify accordingly. By doing so, teachers and students are both becoming critical consumers of knowledge and improving their academic skills (Banks, 2010).

The third element is the one that is most often associated with culturally responsive teaching: cultural caring and community building. Recently, Shevalier and McKenzie (2012) extended the notion of cultural caring and community building by situating it in Noddings’ (2002) care theory. They noted that teachers have to respond to students in ways that build and sustain meaningful, positive relationships. Such a response results from caring for students, as opposed to caring about them. Their rationale is that when teachers care for their students, the result is reciprocity and the student cares for the teacher and this can lead to the reduced pain of discrimination as envisioned by Banks (2010). The fourth element is cross-cultural communications, which is the ability to understand diverse cultural discourses (e.g., contextual factors, vocabulary, and intonation). The fifth element is cultural congruity in classroom instruction. Here, Gay is referring to matching teaching and learning styles as well as incorporating diverse examples, or cultural alternatives (Banks, 2010). Gay’s overall focus on the cultural differences steeps from her belief that “when the cultures of students and teachers are not synchronized, someone loses out. Invariably, it is the students” (1997, p. 223). As such, she designed the elements of culturally responsive teaching to bridge that gap between teachers and students by outlining elements aimed to help teachers understand and support their students.

**Culturally Relevant versus Culturally Responsive**

The previous subsections described the elements of culturally relevant and culturally responsive. Table 2 illustrates how the elements are aligned with the goals of multicultural education. Whereas both pedagogies are similar in their dependence upon the use of students’
culture as an asset and the personal and professional relationship between teachers and students in the classroom, they differ considerably in their specific emphases, orientations and, more importantly, in the ways in which they depend upon, support, and extend relationships in the classroom. In its more explicit commitment to advocacy and social justice, culturally relevant pedagogy identifies and addresses power relations as well as links the classroom as a community both inside and outside the school. On the other hand, culturally responsive pedagogy has a stronger emphasis on the relationships and community building within the classroom. Considering their similarities and differences, using both in tandem supports the identification of comprehensive framework of teacher characteristics. Both focus on the classroom dynamics from wide-ranging perspectives: teacher outcomes and student outcomes, success versus underachievement, and practice versus theory. Although these pedagogies are a step toward operationalizing the aims of multicultural education, multicultural education is still not without its critics. One commonly voiced critique is that of the lack of assessment within the field.

**Status of Teacher Assessment in Multicultural Education**

In this chapter, I established multicultural education as a platform for educational reform and the impact of teacher characteristics on students’ outcomes and experiences has been explored. Pairing multicultural education and the importance of teachers, this section explores efforts to assess teacher characteristics specifically related to multicultural themes. I evaluate existing instruments according to their theoretical and psychometric properties, which yields a justification for the development of a new instrument to measure the extent to which a teacher is multicultural, or possesses the knowledge, skills, and dispositions that promote equity.

To identify relevant peer-reviewed journal articles on the topic, parameters were set for a keyword search that was conducted using six online databases (ERIC, Education Full Text,
Mental Measurements Yearbook, PsycARTICLES, PsycINFO, and Teacher Reference Center). Terms were divided into four categories relating to the population (e.g., teachers), measurement (e.g., quantitative, instrument, questionnaire, rubric, inventory, observation, and survey), multicultural issues (e.g., diversity, multiculturalism, race, culture, cultural, equity), and teacher characteristics (e.g., competence, values, attitudes, dispositions, and beliefs). No temporal limit was put in place to explore the development over time. Of interest for this review were articles that specifically discussed the development, validation, and implementation of instruments designed to assess teachers characteristics related to multicultural issues. This limitation allowed for a narrow focus on the intended purpose of the instruments and not on how they may have been used in subsequent studies, which may be contradictory. Surveys and qualitative assessments (i.e., interviews and open-ended responses) that did not include scoring criteria (e.g., Barry & Lechner, 1995; Cooper, Beare, & Thorman, 1990; Easter, Shultz, Neyhart, & Reck, 1999; Reed, 2009) were excluded. A total of 22 instruments was identified among the reviewed articles. Instruments developed and utilized outside of the United States were removed (e.g., Teacher Cultural Beliefs Scale (Hachfeld, Hahn, Schroeder, Anders, Stanat, & Kunter, 2011). Though similar in aim, the Cross Cultural Adaptability Inventory (Davis & Finney, 2006) is specified to examine the impact of international experiences on preservice teachers (Batey & Lupi, 2012), which also falls outside the scope of this study.

The remaining 20 instruments were screened for academic presence. Humphreys and his colleagues (2011) considered the existence of four or more articles in which an instrument was studied or used be an indication that the instrument had gone beyond basic development and validation. Employing Humphrey et al’s criterion would have reduced the number of instruments to four, which illustrates the emergent and exploratory nature of assessment within
the field of multicultural education. It was therefore decided to include instruments with at least one article beyond initial development and validation where the instrument was used or studied. Each instrument was entered into Google Scholar to identify additional empirical studies of teachers or for further validation. Consequently, the following instruments were removed: Multicultural Attitudes Questionnaire (MAQ; Giles & Sherman, 1982), Multicultural Sensitivity Scale (MSS; Jibaja-Rusth, Kingery, Holcomb, Buckner & Pruitt, 1994), Cultural and Educational Issues Survey (CEIS; Pettus & Allain, 1999), Teacher Belief Survey (TBS; Easter, Shultz, Neyhart, & Reck, 1999), Standards-based Assessment Tool for Diversity-Responsive Teaching (DRT; Sobel, Taylor, & Anderson, 2003), Diversity Dispositions Index (DDI; Schulte, Edwards, & Edick, 2008), Multicultural and Special Education Survey (MSES; Utley, 2011) and Teacher Cultural Beliefs Scale (TCBS; Hachfeld, Hahn, Schroeder, Anders, Stanat, & Kunter, 2011). The remaining 13 instruments (5 used in 2 studies, 4 used in 3 studies, 2 used in 4 studies, 1 used in 6 studies, 1 used in 7 studies, and 1 used in 12 studies were reviewed according to the criteria described in the section that follows.

Listed in chronological order of development, the following 13 insruments were reviewed in depth in the section that follows: Social Distance Scale (SDS; Bogardus, 1933), Cultural Diversity Awareness Inventory (CDAI; Henry, 1986), Quick Discrimination Index (QDI; Ponterotto et al., 1995), Pluralism and Diversity Attitude Assessment (PDAA; Stanley, 1996; 1997), Teacher Multicultural Attitude Survey (TMAS; Ponterotto, Baluch, Grieg, & Riviera, 1998), Multicultural Teaching Concerns (MTC; Marshall, 2001), Professional and Personal Beliefs about Diversity (PPBD; Pohan & Aguilar, 2001), Multicultural Efficacy Scale (MES; Guyton & Wesche, 2005), Munroe Multicultural Attitude Scale Questionnaire (MASQUE; Munroe & Pearson, 2006), Culturally Responsive Teaching Self-Efficacy and Outcome
Expectancy Scale (CRTSE/OE; Siwatu, 2007), Multicultural Dispositions Index (MDI; Thompson, 2009), Quick-Racial and Ethical Sensitivity Test (Quick-REST; Sirin, Rogers-Sirin, & Collins, 2010), and Multicultural Teaching Competency Scale (MTC; Spanierman, 2011).

The final set of 13 instruments appeared in a total of 53 studies. All instruments are self-report, which primarily ask teachers to rate themselves using a Likert-type scale on a variety of items. The first instrument specifically for teachers was developed in 1982; the oldest instrument was developed in 1933, but was used to assess preservice teachers much later (Law & Lane, 1987). As Figure 1 below illustrates various instruments have been developed consistently with the most recent instrument developed in 2011. The most widely used instrument is the CDAI (Henry, 1986), with its most recent study in 2014. Whereas most instruments were developed for teachers broadly, the PDAA was developed for physical education teachers and the MSS was developed for school health teachers. To date, there has been no systematic review of instruments to assess teachers values, attitudes, and beliefs regarding multicultural issues. I respond to that gap by evaluating each instrument against a set of theoretical and psychometric properties, which I will describe next.
Prior to reviewing the instruments, they were cross-referenced with the *Mental Measurements Yearbook* (MMY). The MMY is a series of published technical reviews of instruments voluntarily submitted by their developers and reviewed by experts in the field of measurement. In addition to the MMY reviews, where available, each instrument was reviewed according to theory and research in the field of multicultural education and according to relevant psychometric elements. Theoretical properties include instrument description (i.e., description of construct, theoretical framework, intended purpose, and test specifications), development (i.e., development process and pilot testing results) and sample items. Psychometric properties include description of the samples studied, validity, and reliability. Each review concludes with an overall summary and an evaluation according to the five criteria outlined for the instrument evaluation.

Overall, five features were identified to guide the review. An assessment of teacher characteristics regarding multicultural issues should: have a theoretical foundation, span a wide
range of multicultural issues, exhibit a transformative orientation, have a focus on personal growth, and have adequate technical/psychometric support. A preliminary review of instruments revealed gaps in the aforementioned areas and was subsequently used to guide the current review of instruments.

**Theoretical Foundation.** One of the most important features of sound instrument development is its grounding in a theoretical framework (AERA, APA, NCME, 2014). The purpose of a theory is to explain and predict some phenomenon. The purpose of measurement is to understand the phenomenon (Singh, 2004), and instrument validation depends on an explicit theoretical foundation. Theory guides instrument development and validation as it provides the framework for the intended purpose and outcomes of the assessment. In this evaluation of instruments, a particular focus is on values, attitudes and beliefs, yet these concepts are elusive. Therefore, their association to the construct (e.g., multicultural efficacy and cultural diversity awareness) and the items need to be explicit and logical. Although a specific theoretical framework is not highlighted in the evaluation, there are a few characteristics that are key: a wide range of multicultural issues and a transformative orientation.

**Broad Scope of Multicultural Issues.** Although multicultural education began as a social movement spawned by the racial tensions in the United States, it has expanded to address issues such as ethnicity, gender, social class, ability, sexuality, language, and religion (Banks, 2010; Ladson-Billings, 2004b). Despite this expansion, many studies are often limited to discussions of race or gender. Similarly, culturally relevant and culturally responsive pedagogies are not limited to race or gender. In a national study of teacher education programs, Jennings’ (2008) found race and ethnicity to be the most emphasized issues, which is consistent with the findings from an earlier study of teacher education programs (Vavrus, 1994). Ladson-Billings
(2006b) cautions that culture is often used to explain everything and anything and is often conflated with and limited to race and ethnicity. Because multicultural education spans a broad spectrum of issues, an instrument grounded in that framework should do the same.

**Transformative Orientation.** The third criterion specifies a transformative orientation; that is, to move beyond the notion that multicultural education is only content related (Banks & Banks, 1995). As described by Ladson-Billings (2006) culturally relevant pedagogy is designed to develop students who are not only academically prepared, but culturally competent and socio-politically conscious. Along the same lines, the five elements of culturally responsive pedagogy require teachers to modify more than just curriculum. An instrument with a transformative orientation moves beyond curricular changes to the social action that is purported to lead to long-lasting systemic changes in education that address interpersonal and institutional discrimination (Castagno & Brayboy, 2008; Cochran-Smith, 2003; Nieto, 2000; Sleeter, 2012). Such an instrument would ask questions related to access, equity, and social justice, as suggested by Nieto (2000; 2010).

Although many scholars believe that a transformative orientation has the potential for change, it is often ignored (Cochran-Smith, 1995; Ladson-Billings, 1995). In an early study of the range and depth of teachers’ multicultural lessons, Vavrus (1994) found that only 10% of the teachers identified their approach as social action, yet only 4% were actually considered to be social action. As Gorski and Swalwell (2015) suggest, the problem is not the lack of multicultural initiatives or programs, rather it is the avoidance of or superficial attention paid to issues of equity. Students’ experiences are often reduced to a taco night or a multicultural fest and the marginalization of truly diverse perspectives within the educational system and beyond are ignored. These findings suggest that it is unlikely that even many multicultural teachers
include a transformative approach and that even if they believe that they do, very few understand what it looks like. In order to bring transformative orientation to the forefront, it is necessary to include it as a criterion for evaluation.

**Designed for Personal Growth.** The fourth criterion is related to instrument use. Typically, the use of assessments falls into one of four categories: 1) personal awareness, growth, and action, 2) intervention planning and outcome evaluation, 3) legal and government decisions, and 4) diagnosis (AERA, APA, NCME, 2014). Although all aforementioned uses have their merits, the present study focuses on instrument development designed for personal awareness, growth, and action. Being multicultural, or possessing certain characteristics related to multicultural issues, is an ongoing endeavor (Banks, 2010). According to Pajares (1993), “The process of accommodating new information and developing beliefs is thus gradual, one of taking initial steps, accepting and rejecting certain ideas, modifying existing beliefs systems, and finally accepting new ideas” (p. 45). This dynamic process has both professional and personal implications, and the onus of developing desirable characteristics does not rest solely on schools of education (Sleeter & Owuor, 2011). It is therefore important for an instrument to be designed to assist teachers in facilitating their own learning process.

**Psychometric Support.**

**Validity.** According to the Standards for Educational and Psychological Testing (AERA, APA, NCME, 2014; herein referred to as the Standards), validity is the degree to which the implications test scores and intended use are supported by theoretical or empirical evidence. As the most critical aspect, results from instruments are severely limited without it. There are two contradicting aspects of validity, validation of inferences and justifications of test use. Adding clarity, Cizek (2012) defines validity as “the degree to which scores on an appropriately
administered instrument support inferences about variation in the characteristic that the
instrument was developed to measure” (p. 35). Consequently, validation is described as “the
ongoing process of gathering, summarizing, and evaluating relevant evidence concerning the
degree to which that the evidence supports the intended meaning of scores yielded by an
instrument and inferences about standing on the characteristic it was designed to measure” (pp.
35-36). Sources of validity evidence are test content, response processes, internal structure,
associations to other variables and consequences (AERA, APA, NCME, 2014). Evidence of test
content ensure that the items, questions, or tasks align with the construct measured and can be
gathered from sources such as theory, field experts, and systematic observations. On the other
hand, evidence relating to response processes focus on the interpretation of items by the target
population and can be gathered from cognitive interviews where response patterns are monitored
and metacognitive processes are discussed. Evidence based on internal structure quantitatively
examines the associations among items, where strong associations support that the items underly
a common construct—ideally the one of interest. In addition to verifying the construct through
content, evidence based on associations with other variables further supports the construct by
convergent or divergent associations with other constructs. In line with justifications of use, the
final source of evidence rests on the need to examine the intended as well as unintended
consequences of test use. The evidence sought to support the inferences should be based on the
empirical and logical claims of the theoretical framework.

Reliability. Reliability is another psychometric property and refers to the consistence of
scores across replications. It is expected that a valid instrument will perform in consistent and
predictable ways as a function of the construct that the instrument was developed to measure
Evidence of score consistency includes internal consistency among items, as well as test-retest reliability across time.

In summary, the purpose of this section is to provide a critical review of instruments designed to measure teacher characteristics regarding multicultural issues. Theoretical criteria was deemed adequate if present or not. Meeting the psychometric criteria was required not only presence, but were not considered met if there were limitations to interpretation based on inadequate sample size or flawed research design. The instruments are reviewed in chronological order of their development. Appendices A and B summarize the theoretical and psychometric properties, respectively.

Instrument Review

Social Distance Scale

**Theoretical properties.**

**Description.** One of the first instruments used to assess teachers, and one that targeted a broad audience, was the *Social Distance Scale* (SDS). Bogardus (1933), a sociologist, designed the SDS to measure the social distance, or degree of sympathetic understanding between people and social groups. Although there is no theoretical framework reported, Bogardus (1947) emphasized that feelings were more indicative of attitudes than actual behavior to justify the use of his scale. Social distance is captured by a continuum of seven statements ranging from least to greatest distance. Respondents rate the least social distance they would have between themselves and a reference group. It is assumed that if a person identified their closest interaction with a given reference group was “live outside the country”, then he or she would not be likely to engage in “closer” interactions with members of that group. Scores are reported across the sample as means for each racial, religious, and occupational group included.
**Development.** Bogardus (1933) developed the instrument beginning with a list of 60 statements representing various social relationships that he overheard in conversation. The list was then judged by faculty members and students who organized the statements according to social distance. It is unclear how or why these individuals were selected. Final statements were those whose arithmetic average across judges was closest to a whole number.

**Psychometric properties.**

**Samples studied.** The samples studied included a national sample that was majority (90%) White (Bogardus, 1958), racially diverse college students (Parillo and Donoghue; 2005) and White preservice teachers (Byrnes & Kriger, 1988; Law & Lane, 1987).

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

**Reliability.** No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

**Summary.** The SDS was designed to guage national racial attitudes as indicated by distance between people and racial groups. There are major concerns with the SDS. First, there is no mention of a theoretical framework, only Bogardus’ (1947) claim that feelings are better indicators of attitudes than behaviors, and no further studies investigated this claim. Another concern is the limitation to issues of race. Even though religion and occupation are included in the original scale, subsequent studies of teachers employed a limited focus on race (Byrnes & Kriger, 1988; Law & Lane, 1987). By design, the SDS assesses national attitudes, which can explain the lack of a transformative orientation and attention to personal growth. The theoretical weaknesses are paired with an absence of psychometric support. Overall, the SDS meets none of the five specified criteria.
Cultural Diversity Awareness Inventory

Theoretical properties.

Description. Perhaps the most widely used and researched instrument is the *Cultural Diversity Awareness Inventory* (CDAI; Henry, 1986). The CDAI is a tool to help school professionals (e.g., bus drivers, teachers, and administrators) examine their attitudes, beliefs, and behavior towards culturally diverse students. To aid respondents, Henry (1986) included resources to increase general cultural awareness, work with families, use effective communication strategies, conduct accurate assessments, and utilize multicultural methods and materials. Although there is no mention of a theoretical framework, the inventory employs Aragon’s (1973, as cited by Henry, 1986) five components of culture, values and beliefs, communication, social relationships, food, and dress. The original instrument included four subscales sense of responsibility, discomfort, adaptations, and accommodations. Consistent with the purpose of an inventory (AERA, APA, NCME, 2014) the CDAI does not purport to measure a characteristic. Instead, the 28 items span across a wide range of school-related topics (e.g., language, communication, race, testing). Each item is rated on a 5-point Likert scale from strongly agree to strongly disagree. All items are phrased in a socially desirable direction; disagreeing with an item indicates a low level of cultural awareness. There is no information regarding the scoring or reporting of the CDAI. However, in Brown’s (2004a) subsequent study, lower scores were interpreted as higher levels of cultural diversity awareness.

After initial development, the CDAI underwent further revisions. Larke (1990) replaced original dimensions with general cultural awareness, the culturally diverse family, cross-cultural communication, assessment, and the multicultural environment. Similarly, Fehr and Angello (2012) added concerns such as immigration, English language learning, and sexual orientation,
which increased the range of multicultural issues addressed. They also categorized the responses into six hierarchical levels ranging from resistance to a willingness to promote social change. Their version included 20 demographic questions, 20 Likert-type items, and 8 open-ended responses.

**Development.** There is no report of the development of the CDAI.

**Psychometric Properties.**

**Samples studied.** No information is provided regarding the characteristics of the samples used to estimate reliability or validity. Studies of teachers included a racially diverse sample of preservice teachers (Barnes, 2006; Brown, 2004a; 2004b; Deering & Stanutz, 1995; Fehr & Agnello, 2012; Larke, 1990; Milner, Flowers, Moore, Moore, & Flowers, 2003; Walker-Dahlhouse & Dahlouse, 2006), with the exception of Koyama, Plash, and Davis (xxxyear) who surveyed inservice teachers.

**Validity.** In a correlational study with 100 White preservice teachers, Brown (2004a) found a weak negative association between the CDAI and the *Tennessee Self-Concept Scale* (TSCS; Fitts, 1965), r = -0.25. Findings were consistent with theoretical and empirical claims that high cultural diversity awareness (as indicated by a low score on the CDAI) is associated with a strong perception of self (i.e., self-concept). However, findings should be accepted with caution. A sample size of 100 is insufficient to support claims of reliability and validity according to DeVellis’ (2012) recommendation of at least 300 and Benson as well as Clark’s (1982) recommended 7-10 responses per item.

**Reliability.** Evidence of reliability was supported by a Cronbach’s alpha coefficient of .90 and a test-retest reliability of .66 (Henry, 1995, as cited by Brown 2004b). The time between the test and retest and the sample size is not mentioned.
Summary. The CDAI is a 28-item instrument with a five-point Likert–scaled items that was designed as a self-examination tool for individuals who work with culturally diverse students. As with the SDS, there is no reported theoretical framework that guided the development of the CDAI. The strength of the CDAI lies in its replication and extension. However, in the replication and extension the developer’s intent of self-examination and growth was lost as a majority of studies assessed intervention effectiveness. Regarding the transformative orientation, this criterion was not met. There is not sufficient information to judge the quality of the psychometric properties estimated during the initial validation. The correlation with the TSCS was weak and lacked a sufficient sample to support confident interpretations. Of the five criteria, the CDAI only meets two: designed for personal growth and the inclusion of racially diverse samples.

Quick Discrimination Index

Theoretical properties.

Description. The Quick Discrimination Index (QDI), designed for late adolescents and adults, measures attitudes toward racial diversity and women’s equality (Ponterotto et al., 1995). In the QDI, discrimination is limited to racism and sexism because they “transcend national boundaries and represent a universal phenomenon” (Ponterotto et al., 1995, p. 1017), although the instrument was not developed or studied in a global context. There are three subscales: cognitive attitudes, affective-interpersonal reactions, and attitudes toward women. The instrument includes cognitive and affective domains that are theorized to be components of prejudice. The instrument consists of 30 items, rated using a 5-point Likert scale ranging from strongly disagree to strongly agree. Scores are reported as a sum across all items or for each subscale. A lower score indicates a higher degree of discrimination.
Development. The development process consisted of a literature review to identify an initial pool of items (Ponterotto et al., 1995). A panel of experts vetted the instrument and a focus group assessed the clarity of items and format of instrument. The initial instrument was then pilot tested and the initial validation included three studies. The instrument underwent an iterative validation process. In the first study, an exploratory factor analysis (EFA) supported three subscales and yielded a Cronbach’s alpha of .89 (n=285) for the total scale. The three subscales yielded by the EFA were different from the hypothesized subscales: Instead of cognitive, affective, and behavior, the factors suggested cognitive attitudes, affective-interpersonal reactions, and attitudes toward women. Items with low item-total correlations were removed. In the second study, an EFA yielded three factors and 15-week test-retest reliability coefficients ranged between .81 and .92 for the subscales (n = 220). No further modifications were made to the instrument. In a final study with 333 participants, the developers found a positive association between the QDI and The New Racism Scale (r = .72; low scores indicate racist attitudes), The Multicultural Counseling Awareness Scale (r = .84), Social Desirability Scale (r = .02; high score indicates social desirability). No rationale is mentioned as to why these instruments were selected, with the exception of the latter used to examine the presence of response bias. The full-scale Cronbach’s alpha was .88 and ranged between .76 and .83 for the subscales, which indicates moderate to strong internal consistency.

Psychometric properties.

Samples studied. Samples studied included a geographically and racially diverse sample of community members during initial validation (Ponterotto et al., 1995; Utsey & Ponterotto, 1999), White college students (Burkard, Jones, & Johll, 2002) and a racially diverse sample of preservice teachers (Arizaga, 2005).
Validity. Utsey and Ponterotto (1999) administered the QDI to three samples (n = 118, 299, and 532). Scores were internally consistent across the samples. Cronbach’s alpha ranged from .79 and .90 across subscales. An exploratory factor analysis was consistent with the proposed the three factors. They also assessed reading level to support the appropriateness for late adolescents and adults. Results from the The Lix Readability Index indicated a ninth grade reading level. Burkard, Jones, and Johll (2002) found evidence of measurement invariance using hierarchical factor analysis (n = 428) and confirmatory factor analysis (n = 363). Contrary to the three subscales that emerged with the ethnically diverse samples, four subscales emerged with the White sample. The fourth subscale captured political items.

Reliability. No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

Summary. The QDI measures discriminatory beliefs related to race and gender among late adolescents and adults. When considering the theoretical properties, the QDI falls short. Akin to the previously reviewed instruments, there is no theoretical framework. The narrow focus on race and gender and fails to address a wide range of multicultural issues. There is also no evidence of a transformative orientation. The strength of the QDI lies in its psychometric properties. Even though evidence of reliability and validity are present, the rationale for choosing these sources of evidence was lacking. For example, instrument fared well when associated with three existing instruments, but selection was not explained. Overall, the QDI only met one criterion: psychometric support.

Pluralism and Diversity Attitude Assessment

Theoretical properties.
**Description.** One of the earliest instruments developed specifically for teachers was Stanley’s (1996) *Pluralism and Diversity Attitude Assessment* (PADAA). The PADAA measures attitudes towards cultural diversity and cultural pluralism, defined as “an ideology that gives value to cultural diversity and promote equality for people” (p. 893). The four dimensions were supported empirically through factor analysis described below, but not theoretically: value cultural pluralism, implement cultural pluralism and uncomfortable with diversity. Stanley (1997) identified a hierarchy of cultural pluralism: awareness, appreciation, value, and implementation. The first three levels represent increasingly stronger beliefs and the final is related to action. The intended purpose of the PADAA is to support teacher education programs understand of the needs of preservice teachers and help them to develop positive attitudes towards their students. Despite this broad aim, the instrument targets preservice physical education (PE) teachers. It is not clear how the instrument achieves its intended purpose. There are 19 items rated on a 6-point Likert scale ranging from strongly agree to strongly disagree. Only five items are specific to PE teachers or physical education and can easily be substituted (e.g., “Physical educators should help students develop respect for themselves and others”). Items include broad concepts that are open to the interpretation. The ambiguity of the items clouds the inferences that can be made from the scores as respondents are likely to define those terms differently (e.g., ”Cultural diversity is a valuable resource and minorities should adopt the values of the dominant culture”). Total scores are reported for each subscale.

**Development.** According to the developers of the PAADA, a literature review on cultural pluralism generated a list of 60 initial statements. The initial version was reviewed by a panel of experts, assessed for readability and reviewed by a measurement specialist. During the initial validation, the instrument was administered to 215 preservice PE teachers. Cronbach’s
alpha was .91 and a principal components analysis supported the four factors. Internal consistency reliability for these factors ranged between .72 and .92. The test-retest reliability coefficient was .84 (n=35). Stanley (1996) did not report the time between administrations. Despite the favorable results, they should be accepted with reservation, as the sample size is insufficient to support claims of reliability and validity (Benson & Clark, 1982; DeVellis, 2012).

**Psychometric properties.**

**Samples studied.** Stanley (1996; 1997) described the sample as geographically diverse PE teachers and did not report racial, gender, or other demographics. Dee and Henkin (2002) studied a racially diverse sample of preservice teachers.

**Validity.** The data from Dee and Henkin’s (2002) study of racially diverse preservice teachers who taught courses other than PE yielded a five-factor structure, instead of the initial four-factor structure (n = 150). These findings suggest that the instrument does not perform the same for all groups, whether based on race or subject-matter.

**Reliability.** No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

**Summary.** The PADAA is designed to measure attitudes that support cultural diversity and pluralism. The strength of the instrument is that it was one of the first designed for teachers, albeit PE teachers. There are both theoretical and psychometric weaknesses. There was no a priori theoretical framework, though in a later study Stanley (1997) added levels of intensity based on theoretical claims. The scope of multicultural issues was difficult to assess due to the ambiguity of the items. Contrary to a transformational orientation, the items focus on beliefs and not actions. The PADAA is designed to provide feedback to teacher education programs and not
for personal growth. The psychometric properties are weak due to insufficient sample size. Overall, the PADAA meets none of the criteria.

**Teacher Multicultural Attitude Survey**

**Theoretical properties.**

**Description.** The *Teacher Multicultural Attitude Survey* (TMAS) is a unidimensional measure of teachers’ multicultural awareness and sensitivity, defined as an awareness of, comfort with, and sensitivity to cultural awareness (Ponterotto, Baluch, Grieg, & Rivera, 1998). There is no report of the intended use of the instrument nor is there a deeper explanation of the construct. The developers asserted that multicultural awareness and sensitivity influence teachers to view cultural diversity as an asset and feel responsible to address multicultural issues in the classroom. Unlike the previous instruments, almost half of the items are written in first-person, which may be a better estimator of beliefs than items that refer broadly to teachers. Items refer broadly to multicultural education and culture and two items specify language. The 20 items are rated along a 5-point Likert scale ranging from strongly disagree to strongly agree where high scores are associated with a higher level of multicultural awareness. Scores are summed across all items. A high score reflects a view of cultural diversity as a strength and a feeling of responsibility to address multicultural issues in the classroom.

**Development.** A diverse team (n=4) according to their gender, race, ethnicity, and nationality developed the initial pool of 31 items. The team based these initial items on a literature review of multicultural sensitivity and competence. Focus groups and graduate students reviewed the items. The developers then conducted two studies during the validation process. The first included a sample of 429 racially and ethnically diverse preservice and inservice teachers. Based on the results of a principal components analysis, 11 items were...
removed. During the second validation study, the revised 20-item instrument was administered to 227 graduate students. The total score Cronbach’s alpha was .86 and the test-retest stability coefficient over a three-week period was .80. The coefficient of variation of 9.3% fell within Dawes’ (1987) recommended range. Some concurrent validity evidence was presented in the form of modest correlations between the TMAS and the *Multigroup Ethnic Identity Measure* (*r* = .31) and the QDI (*r* = .31). The lack of a relationship between the TMAS and the *Social Desirability Scale* caused the developers to claim that there was no social desirability contamination. Although Ponterotto and his colleagues (1998, p. 1010) “hypothesized that the TMAS would correlate positively and moderately with these measures,” this does provide a sufficient rationale for the instruments selected.

**Psychometric properties.**

**Samples studied.** Samples included racially diverse graduate students, inservice teachers and preservice teachers (Bodur, 2012; Cicchelli & Cho, 2007).

**Validity.** When their administration to 61 teaching fellows yielded negatively skewed results, Cicchelli and Cho (2007) concluded that the instrument may be more appropriate for students who are just beginning to develop an awareness of their attitudes and not those who have “life experiences with multiculturalism within urban contexts” (p. 378). This claim was not empirically supported.

**Reliability.** A subsequent study by Cicchelli and Cho (2007) yielded a total score Cronbach’s alpha of .82 (*n* = 61).

**Summary.** The TMAS is a unidimensional 20-item instrument designed to measure multicultural awareness and sensitivity among teachers. Similar to the previously reviewed instruments, a theoretical framework did not guide the development of the construct or the items.
The ambiguity of the items hindered the ability to capture specific multicultural issues, with the exception of language. Because items represented a series of beliefs, the instrument did not reflect a transformative orientation. However, it must be noted that the items regarding responsibility is a move toward the transformative direction. Instrument use was not reported. Psychometric properties fared better than the theoretical properties. TMAS was standardized with a racially and professionally diverse sample, which is a strength. Beyond the initial validation studies, no further evidence was gathered to support reliability or validity. Overall, TMAS only meets one criterion: psychometric support.

**Multicultural Teaching Concerns**

**Theoretical properties.**

*Description.* Multicultural Teaching Concerns (MT) is a 64-item self-assessment of the intensity of teachers’ concerns about working with diverse student populations. Based on the increasing diversity of the student population and the teaching force, Marshall (2001) developed the MT to better understand the anxiety that teachers may face as a result of cultural incongruence. The foundation of this construct is Fuller’s conceptual model suggesting that teachers are concerned with self, task, and impact. Marshall’s critique was that that is model ignores cultural context and therefore paired it with Locke’s (year) progressive continuum of cross-cultural awareness: racism, sexism, poverty, individual differences, other culture(s), and diversity. Multicultural teaching concerns are organized into four categories: familial/knowledge, strategies and techniques, cross-cultural competence, and school bureaucracy. Although the term “culturally diverse” is used and the aforementioned model includes a wider range of cultural factors, the instructions on the assessment focus on African-American, Hispanic, and Native American students. The MT was designed for both preservice
and inservice teachers. Items were worded conditionally for preservice and definitively for inservice teachers and rated along a 5-point Likert scale that ranged from extremely unimportant to extremely important. Scores are summed within each of the four categories, where a higher score reflects a higher intensity of concern.

**Development.** The initial pool of items was derived from responses of preservice and inservice teachers who responded to an open-ended questionnaire regarding their concerns working with diverse students. At this stage, it was determined that concerns between preservice and inservice teachers were similar. These responses were then analyzed for themes. A three-round Delphi technique yielded the 64 questions that were rated equally by the three content area experts. This version of the MT was then administered to preservice and inservice teachers (n = 146), many of who participated in the initial pool development. An exploratory factor analysis was used to confirm that four hypothesized factors, which accounted for 51% of the variance. Factor loadings ranged from .31 to .79 and met the criteria of greater than .30 that was used to retain factors. However, all findings should be accepted with caution. With 64 items, a sample of 146 is not sufficient (Benson & Clark, 1982; DeVellis, 2012).

**Psychometric properties.**

**Samples studied.** The race and ethnicity of the 206 inservice and preservice teachers who participated during development and initial validation were not reported. In a subsequent study of a homogeneous sample of White preservice teachers, Vincent, Killingsworth, and Torres (2012) compared the concerns of secondary agricultural teachers to secondary teachers in all other disciplines.

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.
Reliability. No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

Summary. The MT is a 64-item self-assessment of the intensity of teachers’ concerns about working with diverse student populations. Although a theoretical framework provided the impetus for the study, Fuller (1969) and Locke’s (1988) conceptual models did not inform the development of the items. However, a strength is the inclusion of the target sample, teachers, which increases the relevance of the items. Though referencing multicultural and culturally diverse, the focus is on race and ethnicity by directing teachers to focus on African-American, Hispanic, and Native American students. With the intention of capturing concerns, there is not an inherent aspect of personal growth. In fact, concerns are even a little ambiguous; there are a variety of reasons why an issue may be a concern. Concerns can cause fear or can also refer to issues that are being actively addressed. It is unclear how respondents defined their concerns, and the instructions did not specify. With regard to the psychometric support, it is severely limited. An EFA was used to confirm the structure; evidence of reliability was not reported. Because a significant proportion of the sampling frame participated during the initial development, sampling bias is a possibility. Overall, the MT meets one criterion: presence of a theoretical framework.

Professional and Personal Beliefs About Diversity

Theoretical properties.

Description. The Personal and Professional Beliefs About Diversity Scale (PPBDS) measures beliefs about diversity in personal and professional contexts. The instrument is intended to be used by teacher educators to help teachers acquire the necessary knowledge, skills, and attitudes for culturally responsive teaching. Pohan and Aguilar (2001) considered
personal and professional beliefs based on the notion that there could be a conflict between the two. For example, the belief that “It is not a good idea for same-sex couple to raise children” (personal scale) may not lead to the belief that “Gays and lesbians should not be allowed to teach in public schools” (professional scale). Items on both scales capture multicultural issues, such as race, gender, social class, sexual orientation, disabilities, and language; religion is only included in the professional scale, and immigration only in the personal scale. The 15 personal items and 25 professional items are rated along a 5-point Likert-type scale ranging from strongly disagree to strongly agree. None of the items were written in first person. Scores are summed across each subscale. In line with their goal of assessing varying levels of acceptance for the included ranges of diversity, the developers created a profile where low scores reflect intolerance, midrange scores reflect general tolerance or indifference, and high scores reflect openness and acceptance. No further information is provided regarding the numerical the scores that fall into each range.

**Development.** At the development stage, the focus was on the range of multicultural topics. The research team reviewed issues addressed in multicultural courses and multicultural literature (Pohan & Aguilar, 2001). Initially, there were 22 personal items and 30 professional items. A panel of three multicultural experts vetted initial items. During the pilot test, the initial version was administered to two groups of students (n = 179 and 119). Low item-total correlations, below .30, were used to remove items. Although reliability estimates were computed for the original version, they were not computed again for the final version, which consisted of 15 items on the professional scale and 25 on the personal scale. In a field test administered to 756 preservice and inservice teachers, the developers focused on the association between the PPBDS with other instruments. A negligible association with the *Social*
Desirability Scale ($r = 0.06$) supported the lack of response bias. A low to moderate correlation ($r = -0.24$) with the Rokeach Dogmatism Scale, a measure of the closedness of belief systems, moderately supported the claim that the PPBDS measures openness and acceptance of diversity.

**Psychometric Properties.**

**Samples studied.** The instrument was normed using samples of geographically diverse preservice and inservice teachers. The developers did not provide further description of the samples, but concluded that racially diverse samples are needed. The assumption is that the sample was all, if not majority, White. This was also the case in a subsequent study of preservice teachers (Szabo & Anderson, 2009). In Cicchelli and Cho’s (2007) study of teaching fellows, their sample was racially and ethnically diverse. A racially diverse sample also participated in Bodur’s (2009) study regarding the impact of multicultural preparation courses.

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

**Reliability.** No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

**Summary.** The PPBDS measures professional and personal beliefs across a wide range of multicultural issues. By including a personal and a professional scale, the developers call to attention the possibility that there is a difference. Further exploration is needed regarding the nature of that difference. The focus of the instrument was to capture a wide range of multicultural issues, and less attention paid to how those issues captured a particular characteristic. As such, a strength of the PPBDS is the range of multicultural issues that are addressed, however the focus was on beliefs and not social action. Teacher educators, and not teachers, are the intended target. The robust development process is another strength, however no
further validation studies were conducted. Psychometrically, the scales are weak. There is no information regarding the reliability of the revised scale and validity is limited to evidence of association with other variables and test content. Overall, the PPBDS only meets one criterion: wide range of multicultural issues.

**Multicultural Efficacy Scale**

**Theoretical properties.**

*Description.* The *Multicultural Efficacy Scale* (MES; Guyton & Wesche, 2005) assesses multicultural efficacy, defined as confidence to be successful in multicultural settings. The construct was modeled after teacher efficacy in name only, as theoretical framework regarding efficacy did not influence construct or item development. Multicultural efficacy was based on a series of conceptual, not theoretical, frameworks: five approaches to multicultural teacher education (Sleeter & Grant, 1987), teacher belief systems (Nel, 1993), and levels of multicultural integration (Banks, 1998). Nel (1993) categorized preservice teachers’ belief systems about multicultural education as assimilation, tolerance, equality of ethnic groups, protection and enhancement of diverse groups, and reconstruction of society to better serve populations of color. Together, these approaches provided guidelines for representativeness (as cited by Guyton & Wesche, 2005). The MES has 4 intended purposes: (1) to measure changes in preservice teachers due to multicultural education; (2) to assess the effectiveness of multicultural efforts; (3) to predict success in teaching diverse learners; and (4) to identify levels of multicultural efficacy to modify teacher education. Experience, attitude, and efficacy are the three dimensions of multicultural efficacy and each has a different response scale. Items related to experience use a frequency scale of never, rarely, occasionally, and frequently. Items related to attitude use a 4-point Likert scale ranging from strongly agree to strongly disagree. For items related to efficacy,
respondents marked whether or not they believe they could, could do it if they had to, could do it reasonably well or were quite confident that it could be done with ease. Guyton and Wesche (2005) recommended scoring items on the experience scale such that 1 or 2 (disagree strongly or disagree somewhat) indicate a low score, a 3 (agree somewhat) represents an average score, and a score of 4 (agree strongly) is represents a high score. On the attitude scale, values between 0 and 15 represent low attitudes, 16 and 24 average attitudes, and 24 and 28 positive attitudes. Similarly, for efficacy scores from 0 to 54 indicate low efficacy, 55 to 66 indicate average efficacy, and 67 to 80 indicate high level of efficacy. While the presence of categories adds to the interpretation of the scores, there are limitations in that the score of 24 falls into both average and positive categories and there is not quantitative support for the cut-off scores other than averages.

**Development.** Items were generated by the research team based on multicultural literature and were reviewed by experts. Items were sorted according to five categories: experience, efficacy, attitudes, instructional knowledge, and general knowledge. The initial version had 130 items and was administered to 626 preservice teachers. The first round of pilot testing resulted a reduction to 80 items, based removal of items with item-total correlations less than .385. Responses to the 80 remaining items were used in a confirmatory factor analysis. Items with a factor loading less than .30 were removed. As a result, the knowledge subscales were removed. The Cronbach’s alpha for the scale was .89 and the internal consistency of the attitude, efficacy and experience dimensions was .72, .93, and .77, respectively. The quantitative portion of the validation process suffered from a flawed research design. One concern is that a sample size of 665 is insufficient to support claims of reliability and validity according to Benson and Clark’s (1982) a sample of at least 910 would be adequate. Another concern is that
the developers ignored the impact that items have on each other (Wainer & Kiely, 1987) and ran subsequent analyses with the same data by only removing items. Removing items potentially influences the way participants interpret and consequently respond to items. A new sample should have been administered each revised version of the instrument. Consequently, results should be interpreted with caution.

**Psychometric Properties.**

**Samples studied.** The norming sample was geographically and racially diverse preservice teachers, though a large majority was White. In a subsequent study of the impact of the number and type of college courses on multicultural efficacy, Nadelson and colleagues (2012) also had a sample that was predominantly White preservice teachers.

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

**Reliability.** In Nadelson and his colleagues’ (2012) study (n = 88) the total scale Cronbach’s alpha was .76 and ranged between .68 and .91 for the subscales.

**Summary.** The MES measures multicultural efficacy, or confidence to be successful in multicultural settings through the dimension of experience, efficacy, and attitude. It is one of the first instruments to move beyond awareness, openness, and comfort and into the realm of action. Items do not directly capture what teachers actually do, only what they feel they can do. The items broadly capture multicultural issues, without specific attention to particular issues. A few items directly address issues of race. A strength of the instrument is the detail Guyton and Wesche (2005) provided in regards to the scoring of the instrument. Even with the scoring profiles, the instrument is intended for teacher education programs and not to encourage personal
growth. The psychometric properties are questionable given insufficient sample size and a flawed research design. Overall, the MES does not meet any of the criteria.

**Munroe Multicultural Attitude Scale Questionnaire**

**Theoretical properties.**

**Description.** The Munroe Multicultural Attitude Scale Questionnaire (MASQUE) measures multicultural attitude transformation (Munroe & Pearson, 2006) and was developed in response to the need for a multicultural curriculum reform at the postsecondary level. The developers noted “some multicultural education programs that propose to stimulate and transform multicultural education initiatives, in fact, restrain and confine the transformation to the knowledge level” (p. 821). To move beyond basic knowledge, the MASQUE is based on Banks’ transformative approach to multicultural education and Bloom’s taxonomy, which provided their framework that pays attention to the affective, cognitive, and behavioral factors. The three domains of the MASQE are based on Banks’ transformative approach, which calls for students to know, to care, and to act. The 18 items are rated using a Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Item formats with an even number of scale points was intentionally used to avoid neutrality. Scores are reported as sums for each subscale and the total multicultural score by summing each subscale.

**Development.** No information is provided regarding the details of item development. Content experts reviewed the items assuming different roles as someone who has positive multicultural attitudes and as someone who has negative multicultural attitudes. After determining sensitivity to attitudes, they were field tested for clarity. During the pilot, 422 undergraduate students participated. With 28 items, this sample size is deemed sufficient according to DeVellis’ (2012) and Benson and Clark’s (1982) recommendation. Velicer’s
Minimum Average Partial (MAP) test, used to determine the number of factors, yielded eigenvalues ranging from 1.35 to 4.36, and confirmed the hypothesized three factors. Based on the results of an EFA, items were removed “to obtain the best model possible” (p. 825), although that criterion is not explained in further detail. A moderate association was observed between each domain, ranging between .53 and .59. A Cronbach’s alpha of .80 is reported for only the 18 retained items, and not all 28 items that were included during administration. The authors also concluded that the participants provided authentic responses as indicated by a weak association with the Marlowe-Crowne Social Desirability Scale (r = .16).

Psychometric properties.

Samples studied. During development the sample of undergraduate students were racially and ethnically diverse, which differs from a subsequent study of the impact of service learning where a significant portion of the sample were White preservice teachers.

Validity. No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

Reliability. No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

Summary. The MASQUE is an 18-item self-assessment of multicultural attitude transformation. Banks’ transformative approach and Bloom’s taxonomy provide the theoretical framework instrument. The items fall into three domains: know, care, and act. The latter category is designed to capture behaviors that align with the critical issues outlined by Nieto (2000; 2010). Among the items topics such as gender, race, sexual orientation, class, language, and status are included. There is also strong evidence of psychometric support. The three domains were confirmed, authentic responses were provided, and the items were found to be
internally consistent. The one area where the instrument falls short is development for personal growth. The instrument responds to the need to develop courses that result in a permanent attitude change, and is not specific enough to guide the personal and professional development of teachers. Overall, the MASQUE meets four of the five criteria: presence of theoretical framework, transformative orientation, wide range of multicultural concerns, and psychometric support.

Culturally Responsive Teaching Self-Efficacy and Outcome Expectancy Scale

Theoretical properties.

Description. The Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) and the Culturally Responsive Teaching Outcome Expectancy Scale (CRTOE) measure confidence and competence in teachers’ ability to execute culturally responsive teaching. Siwatu’s (2007) goal was to move beyond the assessment of competencies to predicting implementation. In order to do so, he looked to self-efficacy and outcome expectancy, which are core concepts of social cognitive theory (Bandura, 1997). Self-efficacy is a “belief in one’s capabilities to organize and execute the course of action required to produce given attainment” (Bandura, 1997, p. 3, as cited by Siwatu, 2007). Outcome expectancy reaches further and describes “a person’s estimate that a given behavior will lead to certain outcomes” (Bandura, 1977, p. 193, as cited by Siwatu, 2007). Although there is an assessment of teacher’s self-efficacy and outcome expectancy (Teacher Efficacy Scale), there is no instrument to assess these constructs within the context of culturally responsive teaching. Therefore, Siwatu (2007) paired the constructs with the principles of culturally responsive teaching (Gay, 2000). There are four dimensions: curriculum and instruction, classroom management, student assessment, and cultural enrichment. Given the focus on culturally responsive teaching and the four dimensions, the items are specific to
teaching practice and broadly include multicultural issues. A few items specifically address language. Siwatu (2007) designed the items to reflect varying levels of difficulty. The easier items reflected the more general teaching skills while the difficult items were related to culturally responsive teaching skills. Each item (40 on the CRTSE and 26 on the CRTOE) was judged on a 100-point Likert scale. On the CRTSE, 0 represents no confidence in xxx[finish this phrase] and 100 representing complete confidence. On the CRTOE, the continuum ranges from entirely uncertain and entirely certain. Scores are summed across scales and at the item level, in order to understand areas of strength and weakness.

**Development.** There is limited information regarding the development of the CRTSE and the CRTOE. Siwatu (2007) developed items based on a review of culturally responsive literature and teacher efficacy research. After developing items “the two scales were pilot tested, refined, and the final drafts were administered to a sample of preservice teachers” (p. 1090).

**Psychometric properties.**

**Samples studied.** There is limited information reported regarding the norming sample of preservice teachers. However, Fitchet, Starker, and Salyers (2012) studied a predominantly White sample preservice teachers to understand the impact of a culturally responsive social studies methods course.

**Validity.** Sitwatu (2007) administered the scales to 275 participants. Results from the principal components analysis supported the unidimensionality of each scale. Siwatu (2007) hypothesized a positive relationship between the two scales was supported by a moderately strong correlation ($r = .70$). Without explanation of selection, Siwatu (2008) found a negligible association between the CRTSOE and *Multicultural Teaching Concerns Survey* ($r = -.02; n =$
62), which lead to the conclusion that teachers who are more efficacious tend to be less concerned about teaching.

**Reliability.** The results indicated strong internal consistency with a coefficient of .96 for the CRTSE and .95 for the CRTOE (n = 275). Although reliability coefficients above .90 may be an indicator that the items are too similar (DeVellis, 2012), Siwatu (2007) acknowledged the possibility, but decided against removing items to maintain the integrity scale.

**Summary.** The CRTSE and the CRTOE measure teachers’ confidence and competence to engage in culturally responsive teaching. The theoretical framework of the CRTSE and CRTOE is a strength of the instrument. Unlike previously reviewed instruments, it is the first based on a theoretical framework. Multicultural issues are addressed broadly with the exception of language. Given the link between efficacy and future behavior, the instrument is more likely than others to measure action. The only concern is that the items do not address the difficult issues described by Nieto (2000), such as access, power, and privilege. Psychometric evidence is favorable, yet limited. Overall, the two criteria are met: presence of a theoretical framework and psychometric support.

**Multicultural Dispositions Index**

**Theoretical properties.**

**Description.** The *Multicultural Dispositions Index* (MDI) is a 22-item self-report measure of the diversity awareness levels of educators. Dispositions are highlighted in the instrument to follow the current trend within the national teacher standards. Thompson (2009) noted the contention in regards to focusing on teaching dispositions, but also argued for their importance if they could be assessed correctly. The standards endorsed by the National Council for the Accreditation of Teacher Education (NCATE) and the Interstate New Teacher
Assessment and Support Consortium (INTASC) provided the theoretical framework for the 22 items. Multicultural dispositions are organized into four factors: cross-cultural competence; multicultural worldview; knowledge of personal and professional self; and professional skills, and commitment. Respondents rate each item using a Likert scale ranging from 1 (strongly disagree) to 9 (strongly agree), where endorsing a higher score reflects greater diversity awareness. Further detail regarding scoring methods is not reported. Initial evidence of validity was gathered with a sample of 1,091 undergraduate students. Factor loadings were found to be “healthy” (p. xx) and therefore all items were retained. Principal axis factoring yielded four factors, which accounted for 56%, instead of the three hypothesized factors. Cronbach’s alpha was calculated for each of the subscales and values ranged between .73 and .86.

**Development.** Initial items and underlying factors were generated based on three sources: (1) INTASC and NCATE documents, (2) teacher and counselor education research, and (3) findings from a pilot study of 477.

**Psychometric properties.**

**Samples studied.** The samples studied during development (Thompson, 2009) and in a subsequent study (Thompson, 2013) were predominantly White preservice teachers and counselors.

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

**Reliability.** No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

**Summary.** The MDI is a 22-item self-report assessment of the diversity awareness levels of educators and was developed in order to bring dispositions to the forefront, along with
skills and knowledge. Despite the specified focus on educators, both studies conducted by Thompson (2009; 2013) included only preservice teachers and counselors. NCATE and INTASC standards are listed as the theoretical framework, yet these are not considered theories in that they do not explain and predict some phenomenon (Singh, 2004). A broad range of multicultural issues is captured in the items, such as gender, age, and sexual orientation. As the goal is assess awareness, the items do not reflect a transformative orientation. Even though Thompson (2009) claims that the MDI “actively promotes the idea that educator self-assessment is an ongoing lifelong endeavor” (p. 99), it is unclear how this is communicated or facilitated with respondents. Evidence of validity included a factor analysis yielding four factors, healthy factor loadings, and moderate reliability. The sample size was sufficient to support the findings. Overall, the MDI meets two of the five criteria: broad range of multicultural concerns and psychometric support.

Quick-Racial and Ethical Sensitivity Test

**Theoretical properties.**

*Description.* The *Quick-Racial and Ethical Sensitivity Test* (Quick-REST) is a video-based measure of ethical sensitivity toward issues of racial intolerance in schools (Sirin, Rogers-Sirin, & Collins, 2010). James Rest’s model of ethical behavior provides the theoretical support and the professional codes of conduct links the construct of ethical sensitivity to professional requirements. According to Rests’ model, ethical sensitivity is a multidimensional construct that consists of four components: (1) ethical sensitivity, the ability to recognize an ethical violation; (2) moral judgment, the ability to formulate a response through reasoning; (3) moral motivation, the will to act in an ethical manner; and (4) moral action, the character to respond. Respondents watch two videos presenting scenarios with ethical violations related to gender and race. In one video two teachers discuss a Dominican student in the faculty lounge and in the second, two
students, one Black and the other White, arrive late for basketball practice and are chastised differently. Following the videos, respondents respond to 18 items on a 5-point Likert scale ranging from strongly agree to strongly disagree. Scores reflect a respondent’s ability to recognize violations of ethical principles in school settings.

**Development.** Initial items were generated from interviews with 168 school professionals who watched the two videos. A team of experts reviewed the items for adequacy. The initial instrument contained 31 items for the faculty lounge scene and 40 for the basketball practice scene and was administered to 295 school professionals and preservice teachers. Internal consistency for the total scale and the subscales ranged from moderate to strong. Cronbach’s alpha for the total scale was .88, .72 for the faculty scenario and .80 for the basketball scenario. The Quick-REST performed as expected. A moderately positive association with the **Professional Beliefs about Diversity Scale** supported the theoretical claim that a respondent with high ethical sensitivity is likely to a score high in terms of their professional beliefs. Similarly, a moderately negative association with the QDI suggested that high scorers are less likely to hold discriminatory beliefs related to women and race. A negligible association with the **Social Desirability Scale** indicated the lack of response bias. Though favorable, results should be interpreted with caution. With 71 items, a sample of 295 is not sufficient to estimate reliability and validity. DeVellis (2012) suggests a sample of at least 300 and a sample of at least 497 is required to meet Benson and Clark’s (1982) criterion of 7-10 responses per item.

**Psychometric Properties.**
**Samples studied.** The samples studied and the norming sample both included racially diverse school professionals, which included inservice and preservice teachers (Rogers-Sirin & Sirin, 2009; Sirin, Rogers-Sirin, & Collins, 2010).

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

**Reliability.** No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

**Summary.** The Quick-REST is a video-based assessment of ethical sensitivity within the school context. Although the format of the Quick-REST is unique, it also hinders efficiency in administration. Strengths are the use of a theoretical model to guide development of the construct and items and the inclusion of racially diverse samples. Without the items, it is difficult to comment on their content. There is a stated focus on issues of race and gender. The limited evidence of validity along with an insufficient sample to support the findings, are psychometric weaknesses of the instrument. Overall, the Quick-REST meets only one criterion: presence of theoretical framework.

**Multicultural Teaching Competency Scale**

**Theoretical properties.**

**Description.** The Multicultural Teaching Competency Scale (MTC) measures teacher’s competency to work in diverse settings (Spanierman et al., 2011). Multicultural teaching competency is defined as an “is an iterative process in which teachers continuously (a) explore their attitudes and beliefs about multicultural issues, (b) increase their understanding of specific populations, and (c) examine the impact this awareness and knowledge has on what and how they teach as well as how they interact with students and their families” (Spanierman et al., 2011,
p. 444). Further, the authors contended that multicultural teaching competency involves not only micro-level systems (e.g., schools), but macro-level systems (e.g., political economy, race relations, and public policy) as well. There are three dimensions of the MTC: awareness, knowledge, and skills. The awareness dimension captures awareness of self and others as cultural beings, attitudes and biases, and the need to create culturally sensitive learning environments. Multicultural knowledge includes knowledge of culturally responsive pedagogy, major sociohistorical and current sociopolitical realities and cultural dynamics. Skills refer to the ability to implement and evaluate strategies that facilitate academic and personal development of all students; implement culturally sensitive behavioral management strategies and interventions; and to participate in ongoing review and evaluation the cultural responsiveness of school policies, procedures, and practice. Only one item mentions culturally responsive teaching, even though the authors regard it a necessary component of a multicultural teacher. Likewise, only one item captures the transformative orientation by asking if teachers “make changes within the general school environment so that racial and ethnic minority students will have an equal opportunity for success.” The 16 items are rated using a 6-point Likert scale ranging from strongly disagree to strongly agree. A high score indicates a high level of multicultural teaching competence.

Development. Validation efforts included 506 preservice and inservice teachers, 248 participated in the EFA and the remaining 258 in the CFA. Of the three proposed factors, exploratory and confirmatory factor analysis supported only two, skills and knowledge. Internal consistency for these factors were .78 and .89, respectively and the alpha for the total scale was .88. Establishing weak to moderate associations with existing measures provided minimal support for the developers’ hypotheses that multicultural competency is associated with
multicultural sensitivity in teaching (TMAS; \( r = .51 \)), but not with color-blind attitudes (Color-blind Racial Attitudes Scale; \( r = -.44 \)) or a preference for inequality among social groups (Social Dominance Orientation; \( r = -.28 \)).

**Psychometric Properties.**

**Samples studied.** The samples studied included racially diverse preservice and inservice teachers (Harrison, Carson, & Burden, 2010; Spanierman et al., 2011).

**Validity.** No further validity evidence was gathered after the gathering and reporting of the initial validity evidence.

**Reliability.** No further validity evidence was gathered after the gathering and reporting of the initial reliability evidence.

**Summary.** The MCT measures teachers multicultural teaching capacity as indicated by skills and knowledge. Even though a theoretical framework was reported, the framework used was based on counselor competencies and the construct of culturally responsive teaching was not given sufficient attention. With a short scale of 16 items, many of the items referred broadly to concepts and were unable to tap into specific multicultural issues. The MCT was the only instrument that included a transformative orientation, though it was reflected with only one item and implied by several others. Initial validation efforts provide psychometric support for the instrument. Overall, it meets three of the five specified criteria: presence of a theoretical framework, transformative orientation, and psychometric support.

**The Need for a New Instrument**

Overall findings revealed that none of the reviewed instruments met all five criteria. In fact, two of the 13 instruments did not meet any of the guiding criteria. Most common among the instruments was psychometric support and least common was the presence of a
transformative orientation and a focus on personal growth and development. What follows is a summary of the findings according to the five criteria that guided the evaluation: the presence of a theoretical framework, the inclusion of a wide range of multicultural issues, a transformative orientation, designed for personal growth, and psychometric support. Findings are shared in detail below and presented in Table 3 below.

Table 3

Cross Reference of Instruments and Evaluation Criteria

<table>
<thead>
<tr>
<th>Theoretical Framework</th>
<th>Range of Multicultural Concerns</th>
<th>Transformative Orientation</th>
<th>Personal Growth</th>
<th>Psychometric Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Distance Scale (SDS)</td>
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<tr>
<td>Cultural Diversity Awareness (CDAI)</td>
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<td></td>
<td></td>
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<tr>
<td>Quick Discrimination Index (QDI)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Pluralism and Diversity Attitude (PADAA)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Teacher Multicultural Attitude Scale (TMAS)</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
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<td>X</td>
</tr>
<tr>
<td>Multicultural Efficacy (MES)</td>
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</tr>
<tr>
<td>Munroe Multicultural Attitude Scale (MASQUE)</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Self-Efficacy and Outcome Expectancy (CRTSE/OE)</td>
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<td>X</td>
<td></td>
<td>X</td>
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<td>X</td>
</tr>
<tr>
<td>Racial and Ethical Sensitivity (Quick-REST)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multicultural Teaching Competency Scale (MTC)</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Theoretical Framework

The first criterion, presence of a theoretical framework is critical to guide instrument development and validation (AERA, APA, NCME, 2014; DeVellis, 2012), yet only six
instruments met this criteria. Of the five that reported a theoretical framework, three were from the field of education and the remaining two from sociology (Quick-REST) and psychology (MTCS). In lieu of a theoretical foundation, some instruments were developed based on a political mandate. For example, the MAQ was developed by the NCATE diversity mandate, which communicated the need to plan multicultural courses as well as develop multicultural attitudes in teachers. The same is true for the MDI whose development stemmed from both the NCATE and INTASC standards.

**Broad Scope of Multicultural Concerns**

The second criteria specified the need to capture a wide range of multicultural issues. Most instruments failed to meet this criteria because they focused narrowly on issues of race and gender or they used ambiguous terms such as culture or multicultural too broadly, which can be interpreted in a variety of ways by respondents. For those instruments that moved beyond gender and race, religion, sexual orientation, socioeconomic status, ability, religion, language, global issues, tracking, and age discrimination were among the issues covered.

**Transformative Orientation**

Only two reviewed instruments met the third criterion, a transformative orientation, albeit weakly. The MCT included aims of social justice and transformation that were insufficiently supported by one item that was geared toward action. The item asked teachers if they “make changes within the general school environment so that racial and ethnic minority students will have an equal opportunity success” (Spanierman et al., 2011, p. 449). Similarly, the MASQUE was comprised of three domains; even though items were worded to reflect the domains (i.e., I know/understand, I care about, and I act), the action items were still vague. For example, responding to the extent of agreement on “I do not act to stop racism” or “I challenge gender
inequities” does not translate to activities that the teacher does within the classroom. Similarly, interpretation of the item will vary without specifics. For instance, what does it mean to respond positively and how does one challenge inequities? Another example is the CDAI. The original version of the CDAI did not include a transformative orientation; Fehr and Angello (2012) made later revisions to include a hierarchy of six developmental levels ranging from resistance to willingness to promote social change. However, willingness as indicated by a favorable response on items such as "I plan to encourage my students to critique society and work for social change" (p. 34) and does not examine the extent to which respondents have the knowledge, skills, or dispositions to actually do so.

**Designed for Personal Growth**

The fourth criteria is an intended purpose for personal growth. Along with transformative orientation, this criterion was met by only one instrument. Henry (1986) designed the CDAI to help school professionals examine their beliefs and behaviour towards culturally-diverse students. Therefore, she included resources to increase general awareness, work with families, use effective communication strategies, conduct accurate assessments, and utilize multicultural methods and materials. Subsequent instruments deviated from the intended purpose and used the instrument for program evaluation and did not report provide feedback to the respondents based on their scores. In his conclusion, Thompson (2009) claimed that that the MDI “actively promotes the idea that educator self-assessment is an on-going lifelong endeavor” (p. 99) yet failed to explain how this was communicated to or facilitated with respondents.

Another hindrance to personal growth is the format of the instruments. With the exception of the Quick-REST all instruments reviewed used a Likert-type response format. The
concern with this format is that each respondent interprets the scale points according to their own worldview and experiences. What may cause one person to rate an item a 5 may cause another to endorse a different score, making it difficult to facilitate growth towards a favorable level on the instrument with this great deal of ambiguity.

**Psychometric Support**

The final criterion was psychometric support. Ebel (1961) referred to validity as "a leading deity in the pantheon of the psychometrician," but noted that “the good works done in it’s name are remarkably few” (p. 640). This was indeed consistent with the findings from the review. The presence of psychometric data does not guarantee its adequacy. Even though all instruments provided evidence of psychometric support, there were varying levels (see Appendix F). Evidence based on test content was the most commonly reported source of validity evidence. Quantitative analyses, though present, were often inadequate and failed to support claims.

Another major concern was sample size. For example, the DDI included 63 items and inferences were made from a sample of 136 which falls significantly short of the recommendation of 300 minimum (DeVellis, 2012) and 7-10 people per item (Benson & Clark, 1982). Another area of concern was item context effects (Wainer & Kiely, 1987). The developers of the MES ignored the impact that items have on each other and ran subsequent analyses with the same data only by removing items to make claims regarding validity and reliability. As removing items potentially influences the way respondents interpret items, a new sample should have been used for each subsequent analyses to maintain integrity.

**Overall Findings**

None of the reviewed instruments met all five criteria; however the target constructs follow an interesting trend. The first decade of instruments assessed the presence of positive
attitudes and tolerance. Pohan and Aguilar (2001) introduced the *Personal and Professional Beliefs about Diversity Scale* (PPBDS), which described the concept in terms of openness and acceptance. The PPBDS also introduced the notion that teacher’s personal and professional beliefs are not always aligned. At the same time, Marshall’s (2001) *Multicultural Teacher Concerns* instrument reflected the concerns for the increasing racial and ethnic diversity of the United States by framing multicultural characteristics as the intensity of concerns working with culturally diverse students. With the development of Guyton’s and Wesche’s (2005) *Multicultural Efficacy Scale* (MES), the field began to shift towards a more complex definition of teacher characteristics as efficacy; this shift in terminology moves beyond awareness, openness and comfort into the realm of action. Efficacy, belief in one’s capability, emerges again in Siwatu’s (2007) scales, where the notion of efficacy was paired with the principles of culturally responsive teaching. The next wave focused specifically on dispositions with the DDI and the MDI, which differ from one of the most recent instrument’s (MTC) assessment of the process of exploring beliefs and attitudes, which suggests the dynamic nature of teacher characteristics. The most recent instruments (MTC and MSES) also expanded more broadly from dispositions to competencies, which include knowledge, skills, and dispositions. It seems then that the development of a rubric that captures knowledge, skills, and dispositions is in line with the current trend of multicultural assessments. The findings from the review suggest the need for a new assessment with a solid theoretical and psychometric foundation.

**The Multicultural Teacher Capacity Scale**

Although the constructs related to multicultural education have evolved, the manner in which they are measured has not. Thus, the next chapter describes the methods employed to develop the *Multicultural Teacher Capacity Scale* (MTCS). Whereas none of the previously
reviewed instruments met all five criteria, the MTCS was designed to meet all five: (1) culturally relevant and culturally responsive pedagogies provide the theoretical framework for development; (2) wide range of multicultural concerns is included; (3) a transformative orientation embedded throughout; (4) personal growth is communicated and facilitated through language and by outlining various levels; and (5) in addition to development, the second aim of this study is to gather evidence of psychometric support.

In line with the trend in assessment and with acknowledgement of the gaps in existing instruments, the MTCS assesses multicultural teachers’ growth along a continuum of knowledge, skills, and dispositions, herein referred to as characteristics. McDiarmid and Clevenger-Bright (2008) broadly described teacher capacity as the potential for teachers to develop along a continuum. Drawing from culturally relevant and culturally responsive pedagogy, multicultural teacher capacity refers to the development of knowledge, skills and dispositions that promote educational equity along a continuum. Such a continuum attends to the dual foci of teacher preparation, as described by Gay (2010), to examine beliefs and attitudes and to develop cognitive knowledge and pedagogical skills.

Even though the effectiveness of interventions is important, the development of multicultural characteristics is as much a personal feat as it is professional. According to Pajares, “The process of accommodating new information and developing beliefs is thus gradual, one of taking initial steps, accepting and rejecting certain ideas, modifying existing beliefs systems, and finally accepting new ideas” (1993, p. 45). Traditional self-report assessment tools, similar to the ones previously reviewed are typically not designed to provide detailed feedback to respondents. Data from these assessments are often used for research purposes with a limited formative component. Not surprisingly, rubrics have become increasingly popular as
the field of education moves towards more authentic, competency-based assessments (Jonasson & Sving, 2007). A self-assessment rubric is the proposed format to incorporate the continuum and the goal of personal growth, therefore the MTCS will be a self-assessment rubric. At a time when many scholars are asking whether teacher education programs or other interventions have changed teachers’ values, attitudes, and beliefs, it is necessary to take a step back to identify what those values, attitudes, and beliefs are. In the next chapter, I discuss the development of the MTCS.
CHAPTER 3: METHODOLOGY

The previous chapters described not only the importance of multicultural education, but also demonstrated the need for an assessment of multicultural teaching capacity. In this chapter, the initial instrument development process of the MTCS—a self-assessment and measurement tool to capture the extent to which teachers feel that they possess the characteristics to promote equity—is described. In contrast to the instruments reviewed in Chapter 2, the MTCS: was developed based on a contemporary theoretical framework grounded in multicultural related theory and practice; addresses a broad range of multicultural concerns; has a transformative orientation; can be used for self-assessment of personal growth; and is supported by sound psychometric evidence regarding its reliability and validity. In this chapter, research questions as well as methods used to examine the reliability and validity are outlined. Procedures for data collection and statistical analyses are also presented.

In accordance with the American Psychological Association’s code of ethics (APA, 2010), this study used “appropriate psychometric procedures and current scientific or professional knowledge for test design, standardization, validation, reduction or elimination of bias, and recommendations for use” (p. 13). An exploratory, sequential, three-phase, mixed-method research design was employed in instrument development and validation (Johnson & Onwuegbuzie, 2004; Onwuegbzie, Bustamente, & Nelson, 2010). Figure 2 presents the overall instrument development and evaluation process, with the three phases comprising 12 steps; the process follows, with modifications, Downing’s (2006) recommended steps for effective test development.
What follows is not meant to provide an in-depth explanation of validity theory or validation methods, but a practical presentation to make transparent the logic of the validation process. With any instrument, a major concern is that of validity. Current validity theory rests on four tenets as summarized by Cizek (2012): 1) validity is a unitary concept and not divided into different kinds, but supported by various sources of evidence; 2) score inferences are validated, not the test itself; 3) validity is judged along a continuum, and is not a dichotmous judgment; and 4) validation is an ongoing process, not a one-time occurrence. Although there is agreement on the these four tenets of validity, the distinction between validation and justification remains a contested topic. Guiding this study is Cizek’s (2012) proposed definition that distinguishes between the two aspects of defensible test development and administration: validation of inferences and justification of test use. Cizek has defined validity as “the degree to which scores on an appropriately administered instrument support inferences about variation in the characteristic that the instrument was developed to measure (p. 35). Accordingly, validation
is “the ongoing process of gathering, summarizing, and evaluating relevant evidence concerning the degree to which that evidence supports the intended meaning of scores yielded by an instrument and inferences about standing on the characteristic it was designed to measure” (pp. 35-36). The MTCS is intended to support confident inferences about educators’ multicultural teaching capacity and to provide accurate self-assessment information of professional development in the area of multicultural teaching.

Although the aforementioned definitions offer clarification, Kane (2013) noted another conundrum of validity theory: If all data are potentially relevant to validity, where should one start, and how much evidence is needed to adequately support a proposed interpretation or use? To address those questions, Kane offered the argument-based approach (1992; 2006; 2013) to set parameters for relevant sources of evidence. The parameters for the validation for the Multicultural Teacher Capacity Scale are set by five goals, presented in Table 4, along with respective hypotheses, sources of evidence, and methods of analysis. Consistent with Kane’s approach, these claims address the four critical aspects of measurement as outlined by the Standards for Educational and Psychological Testing: test content, internal consistency reliability, internal structure, and association with other variables (AERA, APA, NCME, 2014).
Table 4

Overview of Instrument Development Goals, Hypotheses, and Methods

<table>
<thead>
<tr>
<th>Psychometric Evidence</th>
<th>Development Goals</th>
<th>Hypotheses</th>
<th>Methods</th>
</tr>
</thead>
</table>
| Test Content           | Demonstrate content validity of the MTCS | Validity will be supported by agreement among experts and alignment with culturally relevant and responsive pedagogies | • Literature review  
• Expert feedback |
| Reliability            | Establish the consistency of the scores | Cronbach’s alpha will be between .7 and .9 for each factor. | Cronbach’s alpha |
| Internal Structure     | Examine the factor structure and discrimination | Each item will have a loading of .30 or above on a factor and scores will demonstrate consistency to score inferences as indicated by moderate to high correlations | Exploratory Factor Analysis  
• Item-total correlations |
|                        | Evaluate the structural matrix design | The Rating Scale Model will yield a better fit index when compared to Partial Credit Model. | Item-Response Theory |
|                        | Examine the performance of each characteristic | Characteristics will capture low, mid, and high ranges of multicultural teacher capacity as indicated by item-person map locations and threshold estimates. | Item Response Theory |
| Association with other variables | Establish an association between the MTCS and social desirability. | A divergent association will be indicated by a low to moderate association between MTCS and M-C Form C scores. | Correlation analysis |

Procedures for Instrument Development and Psychometric Evaluation

The methods in the first and second phases of the study are qualitative and explore the dimensions of multicultural teacher capacity, whereas the methods in the third phase are primarily quantitative to examine the performance of the instrument. Table 5 is a crosswalk, commonly used in collaborative evaluation (O’Sullivan, 2004), to illustrate the alignment of research questions and data sources. Taken together, each data source determined the extent to which the MTCS yields valid measurement of multicultural teacher capacity.
The process of development and validation was organized into three phases, as illustrated in Table 5. Instrument development took place during the first phase through a consolidation of relevant literature. During the second phase, experts and teachers reviewed the instrument for content and clarity. The final phase of this study was instrument evaluation. The MTCS was administered to teachers and their responses were analyzed. A detailed description of each phase is provided below.
## Table 5

**Crosswalk of Research Questions and Data Sources**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>What are the characteristics of multicultural teacher?</td>
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<td>X</td>
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<tr>
<td>What are the corresponding levels of each multicultural characteristic?</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>What are experts’ perceptions of the initial draft of the instrument?</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>How do potential respondents interpret the instrument?</td>
<td></td>
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</tr>
<tr>
<td>What revisions need to be made to improve the instrument?</td>
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<td>X</td>
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<tr>
<td>What is the reliability of the MTCS?</td>
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<tr>
<td>What are the underlying factors of multicultural teacher capacity?</td>
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<tr>
<td>What is the association among items and in relation to the construct?</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Does the matrix structural design of the MTCS provide optimal fit?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>What is the association between the MTCS and the Marlowe-Crown Form C?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>What is the overall evaluation of the instrument?</td>
<td>X</td>
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</tr>
</tbody>
</table>
Phase I. Instrument Construction

During the first phase, the initial draft of the *Multicultural Teacher Capacity Scale* was developed. Development addressed the following research questions:

1. What are the characteristics of a multicultural teacher?
2. What are the corresponding levels of each multicultural characteristic?

**Participants.** During this phase, the goal was to conduct a literature review to identify the initial list of multicultural teacher characteristics and their corresponding levels. Thus, participants were not invited until Phase II when the instrument was reviewed.

**Procedures.** A theoretically grounded definition of the construct is critical to guide instrument development (DeVellis, 2012; Downing, 2006). Therefore, the process began with an operational definition of multicultural teacher capacity: *the extent to which teachers feel that they possess the knowledge, skills, and dispositions that promote educational equity for minoritized students and lead to improved educational outcomes and experiences.* This definition set the parameters for the literature review to identify knowledge, skills, and dispositions.

A literature review built the theoretical and empirical foundation of multicultural education and identified multicultural characteristics. Data were gathered regarding the knowledge, skills, and dispositions that have been theorized or evidenced to promote educational equity among students from minoritized populations. Because multicultural education is not described as pedagogy (Banks, 2007), the literature reviewed was extended to include the two most prominent and widely researched pedagogies: culturally relevant and culturally responsive. In the National Council for Accreditation of Teacher Educators (NCATE, 2008) standards,
teacher competence is defined as disposition, knowledge, and skill. For consistency, the characteristics of multicultural teacher capacity fell into the same categories. Data from the literature review were compiled in a matrix in Excel that included: citation, theoretical framework, dispositions, knowledge, skill, and supporting evidence. Articles were reviewed until the point of saturation, or when themes were repeated and no new information emerged (Hesse-Biber & Leavy, 2011). As a new construct, the purpose was to better understand multicultural teacher capacity and not to confirm dimensionality. Dimensions are represented by sets of items that share a commonality and although characteristics are organized into knowledge, skills, and dispositions, they are not necessarily assumed to represent dimensions. Dimensionality was explored quantitatively during Phase III.

Characteristics were selected based on their prevalence among the literature and supporting evidence. Each characteristic is similar to an item in a traditional survey and “can be thought of as a test, in its own right, of the strength of [multicultural teacher capacity]” (DeVellis, 2012, p. 76). Therefore, generating items is a critical part of the process that requires deliberation. To facilitate the writing process, DeVellis (2012) recommended beginning with a statement of the construct (e.g., Multicultural teachers…), and writing uncritically and quickly to see what emerged. I engaged in this process until I identified a set of characteristics that represented multicultural teacher capacity and were consistent with the literature. The final characteristics were aligned with the elements of culturally relevant and culturally responsive pedagogies to ensure representativeness of the guiding approaches.

Once the characteristics were finalized, full instrument construction began. Based on the previously reviewed literature, I deliberated qualitative gradations for each characteristic (i.e.,
levels). With the levels in place and the characteristics identified, I created a description of each characteristic based on the supporting literature to guide the descriptions. Referencing the matrix that I created, I listed a set of indicators and then placed them along the levels to guide the development of a continuum.

The number and progression of the levels are consistent with Banks’ (1995) 4 levels of multicultural education: contribution, additive, transformation, and social action. They are also consistent with Lee’s (1995) four multicultural levels: surface, transitional, structural, and social change. Though semantically different, both models theorize four levels and a progression from superficial to social action. A review of teacher evaluation models suggested a similar classification. The state of North Carolina, where the study took place, models its teacher evaluation system after the McRel instrument and identifies four levels as well: Developing, Proficient, Accomplished, and Distinguished. In an effort to reflect the move from superficial to social change while including language that teachers are already familiar with, it was decided to use the following labels: Emerging, Progressing, Advancing, and Transformational.

Multicultural education goes against the grain and as explained in this study, is not common. It was therefore expected that there would be teachers who had not yet developed multicultural teaching capacity. Therefore, a Nascent category was added to distinguish between those who are at the early stages from those who have not yet considered the included aspects. Thus, the lowest level was intended to reflect an absence of the characteristic and the highest level reflects the actions to lead to transformation in the classroom and beyond. Chapter 4 includes a detailed description of each characteristic; below is an example is a characteristic and its description along the continuum. The full instrument is included in Appendix J.
As shown in Table 6, one of the characteristics of multicultural teachers is that they affirm students’ cultural assets, which refers to their recognition of students’ cultural capital and the need to access dominant cultural to navigate inequitable systems. At the Nascent level, teachers do not yet possess this characteristic. At the Emerging level they begin to understand cultural capital, or the knowledge, skills, and talents that students have. They also begin to seek ways to identify this capital. This understanding moves from passive to active at the Progressing level where they create opportunities for students. Also, their knowledge deepens as they begin to understand that there is a dominant culture. At the Advancing level, this knowledge of dominant culture allows them to understand that all capital is not valued equally and this
knowledge is also placed in the school context where teachers begin to identify the capital of dominant society. At the *Transformational* level, multicultural teachers engage in explicit discussions regarding dominant and marginalized capital with their students and they are also aligning students’ cultural capital with content aligned tasks.

**Analysis.** Data from this phase include the literature review matrix, annotated bibliography, participant feedback, and expert feedback. Prior to analysis, all information was read through for breadth. The review matrix and annotated bibliography were analyzed using colored coding in Word and Excel. DeCuir-Gunby and her colleagues (2011) challenged their readers to consider the role of theory in coding. In response to the challenge, the first round of coding was deductive and based on theory and extant literature. The codes were organized according to the following categories: theoretical framework, dispositions, knowledge, skill, and supporting evidence. DeCuir-Gunby, Marshall, and McCulloch (2011) recommended axial coding to identify associations among codes, which is especially important in the development of a conceptual model.

**Phase II. Instrument Review and Revision**

The first draft of the MTCS, constructed in phase I, underwent a rigorous review process by field experts and former teachers. At the end of this phase, the instrument was considered to be fully vetted; initial evidence supporting the construct validity of the scale was gathered; and the instrument was deemed ready for administration and quantitative evaluation in Phase III. Specific research questions include:

1. What are experts’ perceptions of the initial draft of the instrument?
2. How do potential respondents interpret the instrument?
3. Based on feedback from experts and respondents, what revisions are needed to improve the MTCS?

**Participants.** The first source of validity evidence for the MTCS was experts who are familiar with multicultural education as well as teacher preparation were recruited as reviewers. Experts who published at least one peer-reviewed article in the field of multicultural education and had professional experience with teachers were invited to participate. Experts were identified based on names that emerged during a review of relevant literature and relevant presentations at a professional conference. In addition to a professional criterion, experts were intentionally diverse according to gender, race, ethnicity, and geographic location. Of the 20 experts who were invited to participate, 12 reviewed initial drafts of the MTCS. Ten were university professors whose research and/or courses taught included themes relevant to multicultural education and teacher preparation. The remaining two were current graduate students who are former teachers and whose current research interests include themes relevant to multicultural education and teacher preparation. The group was also diverse according to race and gender. Ten of the 12 were women, 6 were White, 4 were Black, and 2 were Latin@.

During the 2014 annual meeting of the National Association of Multicultural Education (NAME) the initial characteristics of the MTCS were presented to and evaluated by an audience of 41, which included currently practicing teachers, \(n = 5\), teacher educators \(n = 20\), school administrators \(n = 3\), undergraduate students \(n = 2\), graduate students \(n = 7\), and others \(n = 4\). In this session I presented the overall study and invited participants to evaluate the characteristics and their descriptions. Because the session attendance was more than anticipated, only 35 attendees received a handout to rate each characteristic for relevance and
representativeness (see Appendix E for feedback form). However, all were able to provide verbal feedback as well as feedback through physical demonstrations (i.e., raise hands to indicate agreement or disagreement).

Along with the experts and NAME members, former teachers with no more than five years outside of the classroom were recruited to review the instrument. Although practicing teachers are the target audience for the MTCS, former teachers were selected so as not to draw from the sampling frame for phase III. A flyer was sent to graduate student listservs at the University of North Carolina at Chapel Hill through the School of Education listserv. All participants received a description of the study along with an informed consent form (see Appendices C and D for email invite and consent form, respectively). All received a $5 Starbucks gift card for their participation.

**Procedures.** A second draft of the instrument was then sent to experts along with questions regarding overall feedback, content, clarity of progressions, and potential use. The instrument was then revised according the feedback and distributed again for additional feedback. Again, language was a concern during with this draft of the instrument as well. After the second revision, the instrument was modified again and the third revision was considered the final revision.

A first draft of the MTCS was evaluated during an in-depth, face-to-face meeting with one expert in the field. The initial review of the literature revealed 19 codes that were then organized into 12 initial characteristics based on feedback from this expert. Following the NAME presentation and analysis of feedback, the 12 characteristics were reduced to 11 with the removal of “utilize diverse resources that reflect their students.” Several participants noted its
redundancy as it fell under the curriculum-specific characteristic. Although there was general
agreement among the experts of the 11 characteristics, several experts challenged me to consider
more deeply the role of action in the rubric. Initial drafts did not reflect the level of action that
was deemed appropriate for a multicultural teacher. Specifically, one reviewer questioned
whether I intended to connote a “lone ranger stance” because an earlier description of the “agent
of change” characteristic failed to involve the students. Taking this consideration to mind, I
made intentional modifications to make explicit that in order for teachers to bring about
educational change that will make schools equitable they need to involve students, their families,
the community, and other school officials (Gorski & Swalwell, 2015; Petty, 2015; Villegas &
Lucas, 2002). In fact, this multifaceted involvement is at the core of Petty’s (2015) equity-
centered capacity building model. Next, the instrument was entered into Qualtrics (2013), a
web-based program for survey administration and analysis, along with demographic items, and
the Marlowe-Crown Social Desirability Scale Form C (MC-C; Crown & Marlowe, 1960). See
Appendix I for the full survey and Appendix H for the M-C Form C.

The M-C Form C (MC-C) is an abbreviated version of the 33-item Marlowe-Crown
Social Desirability Scale (Crown & Marlowe, 1960) with only 13 items. The MC-C assesses
respondents’ tendency to provide answers on self-report instruments that they believe to be
socially desirable, or to respond in an overly pleasing manner. Using a true/false response scale
where true is 1 and false is 2; higher scores indicate a higher level of social desirability in
responses. Compared to the full form, Reynolds (1982) found the MC-C to be a psychometrically
sound alternative to the longer version. The reliability coefficient for the MC-C was .76 and a
correlation coefficient of .93 supported the strong association between the long and short form.
Little to no correlation between scores on the MTCS and the M-C is desired to demonstrate that responses on the MTCS respondents are not influenced by social desirability. Such a finding further strengthens the results and score inferences.

Once the instrument was entered into Qualtrics, I began the final round of revisions before pilot testing. Former teachers were invited to participate in a focus group which served several purposes: to assess question comprehension (Willis, 2005); to determine if respondents were interpreting the items as intended; and to investigate whether or not the survey format and response sets were understandable (NSSE, 2010). Focus groups offer several advantages over the one-on-one format. For one, their more open-ended nature allows an opportunity to assess group or negotiated meaning, which results in a greater range of responses (NSSE, 2010). Also, Krueger (1988) pointed out that triangulating focus groups with quantitative studies increases validity and strengthen findings, which align with the mixed methods design of the present study.

The cognitive pretest was conducted through one focus group with four participants, two one on one interviews, and one written feedback. All participants received an overview of the study in addition to an informed consent form (see Appendix D). During the focus group interview, participants received a link to the survey via email that they accessed from their personal laptop. Two links were distributed, differing in format only, in order to select a color and font scheme that was most appealing. Through a semi-structured interview (see Appendix F for protocol), participants were guided through the survey one page at a time: introduction, dispositions, knowledge, skills, and supplemental items (M-C Form C, and demographic questions). After responding to the items, the groups engaged in discussion prompted by the probes provided in Table 6 and facilitated by the investigator. This process continued until the
survey was reviewed in its entirety. Demographic items were reviewed for language and appropriateness and the M-C Form C was reviewed to garner participants’ reaction to the inclusion of those items. Following the focus group, the survey link was deactivated, the survey was modified, and a new link was assigned to the participants in the two subsequent interviews. Focus groups and interviews took place over the span of two days on the campus of a Southeastern university. The focus group with four participants lasted for about two hours and both interviews lasted for about one hour. All participants were graduate students who were former teachers. One participant was unable to attend the focus group and provided written feedback using the protocol used during the interviews and focus groups. The protocol used in the focus groups is included in Appendix F.

Analysis. Feedback from the experts, NAME members, and former teachers was reviewed during this phase. The feedback was organized by themes to highlight any salient concerns with the instrument and reviewed in an iterative process. Feedback was used to retain, modify, or delete characteristics. In cases where there was a discrepancy, decisions were guided by theoretical support. The focus group information was analyzed in the same manner, however the focus differed. Where the expert review emphasized content, the focus groups focused on grammar and clarity. Once the feedback was analyzed and modifications made and properly documented, the MTCS was deemed ready for pilot testing.

Phase III. Instrument Evaluation

During the third phase of this study the MTCS was administered via web-based survey to currently practicing teachers. Their responses were used to examine the following questions through quantitative methodology:
1. What is the reliability estimate of the MTCS?

2. What are the underlying factors of multicultural teacher capacity?

3. What is the association among items and in relation to the construct?

4. What is the association between the MTCS and the Marlowe-Crown Form C (M-C Form C; Reynolds, 1982)?

5. Does the matrix structural design of the MTCS provide optimal fit?

**Participants.** To maintain the integrity of inferences, the sampling frame for the pilot administration reflected the intended audience: currently practicing P-12 teachers in the United States. The inclusion of inservice teachers responds to the paucity of studies that include them. Sleeter and Owuor (2012) noted this as a limitation in the field because inferences derived from samples of preservice teachers may not accurately reflect the characteristics of inservice teachers. The desired universe of generalization was all P-12 teachers in the United States; thus the web-based survey design afforded access to a broad, national sample. In regards to sample size, DeVellis (2012) recommended at least 300 to adequately support intended inferences and to maximize variance, whereas Benson and Clark (1982) suggested 7-10 respondents per item. Aiming for the greatest variation and expecting a response rate of 50%, 600 teachers were targeted through convenience and snowball sampling. A list of strategies is presented in Table 7. To reduce sampling bias, I intentionally sought sources that were associated with multicultural education and related aims as well as those that were not (e.g., teacher educators who do not teach related courses and organizations with a generalized education focus). The final sample size included 112 teachers. Of those, five were randomly selected to receive a $20 Amazon gift card to incentivize participation.
Table 7

**Recruitment Strategies**

<table>
<thead>
<tr>
<th>Source</th>
<th>Strategy Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Media</strong></td>
<td>A description of the study and contact information was placed on my Facebook page to attract colleagues who are teachers and or teacher educators as well as professional pages, such as the Association of Teacher Educators, Social Justice Educators, Young Education Professionals, Education Pioneers, Wellesley College Alumnae, Black PhD Network, Radical Teacher, and Sigma Gamma Rho.</td>
</tr>
<tr>
<td><strong>Field Experts</strong></td>
<td>Participating and nonparticipating field experts were asked to recruit</td>
</tr>
</tbody>
</table>
| **University of North Carolina (UNC)** | - UNC Black Alumni from the School of Education  
- SOE Listserv  
- Black Graduate Student Association  
- Sistertalk                                                                                                                                                                                                                                                                                |
| **National Association of Multicultural Education (NAME)** | My proposal was accepted and the instrument was presented to an international audience where I introduced the MTCS and recruited participants for pilot study during the NAME annual meeting in November 2014. |                                                                                                                                                                                                                                                                                         |
| **Personal network**        | I accessed my personal network (n=50) for assistance through participation in the study and to recruit other participants.                                                                                                                                                                                                                        |

**Procedures.** Responses to the MTCS, MC-C, and demographic data were collected over the course of 4 weeks. Recruitment flyers with an embedded link to access the survey were distributed via social media, personal networks, and professional networks. Once closed, the data was exported from *Qualtrics* into a password-protected Excel file for analysis. Procedures for analysis are explained in the following section. All analyses were conducted using STATA 13 (StataCorp, 2013).

**Data cleaning and screening.** The data were cleaned prior to any statistical analyses. First, the dataset was de-identified and cases were assigned a random numerical ID code.
Missing data were initially handled through case wise deletions. Because the MTCS was the central construct of interest, it was used as the criterion for identifying and handling missing data. The MTCS was presented before the MC Form-C and demographic items. It is likely that participants who did not respond to the MTCS, also failed to respond to later items. As such, cases whose sum score on the MTCS was 0 were dropped from the dataset. For subsequent analysis, the default in Stata is to exclude missing values and base computations on the number of non-missing values. It was therefore expected that sample sizes would vary across analyses; the final sample sizes are documented in the next chapter. Because less than 10% of the data were missing, it was deemed unnecessary to impute missing values. Of the 13 items on the MC-Form C, one required reverse coding. An open-ended item was included for respondents to provide additional feedback about the survey and/or their experience. Those responses were entered in a Word document for an exploratory thematic analysis.

Preliminary screening of the data included a summary of respondent demographics and examinations of normality. The mean, standard deviation, skewness, and kurtosis were examined for each characteristic to examine assumptions normality. The analyses described in the following sections contribute more specifically to the validation process.

**Factor analysis.** Factor analysis is a statistical technique for data reduction and interpretation and was used in this study to examine the internal structure. It reduces the number of variables to model associations among items in order to better understand the nature of the construct of interest. In instrument validation, it is often used to examine dimensionality (DeVellis, 2012; Onwuegbuzie, Bustamente, & Nelson, 2010). Of the two classes of factor analysis, exploratory (EFA) was chosen over confirmatory for several reasons. Multicultural
teacher capacity is a newly developed construct; hence, there is no adequate theoretical basis to hypothesize associations among items. Conducting an EFA requires the consideration of sample size adequacy, factor determination, extraction, and rotation (Costello & Osborne, 2005). Sampling size adequacy was examined using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (MSA). KMO values range between 0 and 1, Kaiser (1974) recommended the following interpretation: in the 0.90s as marvelous, in the 0.80s as meritorious, in the 0.70s as middling, in the 0.60s as mediocre, in the 0.50s as miserable, and below 0.50 as unacceptable. Underlying factors were determined by examining a scree plot and eigenvalues. When assumptions of normality are violated, Costello and Osborne (2005) recommended principal factors methods of extraction for better estimations. The final decision was method of rotation. An oblique rotation was used to detect cross-loadings. Variables were assigned to a factor based on a criterion of .32 factor loading (Tabachnick & Fidell, 2007). Inter-item correlations is another measure of internal structure. According to DeVellis (2012), moderately high correlations among items suggest that the items all have a latent variable (in this case, multicultural teaching capacity) in common, whereas correlations above .90 suggest redundancy among items. A corrected correlation wherein each item is evaluated with all scale items excluding itself was computed to avoid inflated correlations.

**Reliability.** An important indicator of a scale’s quality is reliability, the proportion of total score variance attributable to variation on the construct of interest (DeVellis, 2012). Essentially, reliability indicates the extent to which an instrument yields consistent and predictable scores, as a function of the construct it is intended to measure. Internal consistency of the MTCS was evaluated using Cronbach’s alpha, which is an estimate of reliability. An
overall alpha between .70 and .90 is most desirable (DeVellis, 2012). The reliability of the MC-C was also computed to examine its performance with sample included in this study.

**Correlational analysis.** Discriminant validity was examined through the empirical association between the MTCS and the MC-C. The MC-C measures the tendency of respondents to respond in a socially desirable manner. The association was calculated using the polychoric correlations coefficient. A negligible (between .00 and .20) or low (between .20 and .40) association is most desirable (Ravid, 2011) and would indicate that respondents were not generating their responses primarily to reflect socially desirable attitudes or beliefs.

**Item Response Theory.** As Humphry and Heldsinger (2014) have noted, the empirical features of scales and rubrics are often not empirically examined. Specifically, they challenged the matrix design where levels are considered consistent across all items, or characteristics. Despite the theoretical support for the five levels of the MTCS, empirical support is lacking. Thus, the levels were empirically examined using Item Response Theory (IRT). IRT is a model-based measurement framework that estimates trait levels (e.g., multicultural teacher capacity) based on responses and item characteristics (Penfield, 2014). In this framework an item’s difficulty is not a function of the sample, but corresponds to the target trait value where the item’s outcome yields the greatest amount of information regarding the respondents’ target trait. IRT creates a model for each response outcome that specifies the probability of selecting each outcome as a function of the underlying target trait, also referred to as the item response function (IRF; Penfield, 2014). Psychometric properties of the item, such as difficulty and discrimination, are determined according to the location and form of the IRFs across the response options of the item. In the case of a scale comprising polytomous items like the *Multicultural Teacher*
Capacity Scale where response options are greater than two, the greatest amount of information will be where the IRF’s intersect between adjacent levels. This location is also known as the transition from one response to the next, or the step function. Such a transition point would be indicated by, for example, the amount of multicultural teacher capacity required for a respondent to select a response labeled as Emerging over the response of the immediately lower category, Nascent.

To examine the structure of responses on the MTCS, the Partial Credit Model (PCM) and the Rating Scale Model (RSM) using Winsteps (Linacre, 2015b) were applied to the MTCS data. Each item in the MTCS has five categories, so the PCM and RSM each estimate four transition locations (i.e., thresholds) for each item. The PCM and the RSM differ, however, in that the PCM allows for the thresholds (or distances between levels) to vary across items and estimates a different threshold structure for each item/characteristic measured by the MTCS (Penfield, 2014). In contrast, the RSM is a constrained form of the PCM and holds the transitions constant across items. That is, the RSM estimates a single threshold structure that is the same across all items.

Model fit assesses the accuracy of model predictions when compared to actual data. In Winsteps the model fit indices are infit and outfit. Infit is weighted and more sensitive to where the person is relative to the location of the item, assigning more weight to individuals for whom the item location is aligned to the respondent’s ability level. Conversely, outfit is unweighted and more influenced by outliers. The values for both indices range from 0 to infinity, with 1 indicating expected fit. According to Linacre (2015a) values between 0.5 and 1.5 are deemed acceptable. Values outside that range are described as being less productive anddistorting. As
presented in Table 8, with a sample size of 112 all items yielded acceptable fit indices with the PCM providing slightly better values (i.e., closer to 1). This was expected because the PCM has more free parameters when compared to its more constrained counterpart. Given that there is no documented way to examine model fit across all items of an instrument in Winsteps, a commonly used index is the root mean squared deviation (RMSD). To calculate the overall RSMD, I calculated the absolute value of the deviation from the expected value of 1.0 for each item, squared those deviations, summed them up, divided by the number of items, and finally took the square root of that total. The fit indices and RSMD values are presented in Tables 8 (infit) and 9 (outfit). When considering item fit and overall model fit, I did not deem these differences significant enough to warrant the selecting the PCM over the RSM. Given the limited sample size, interpretations are better supported by the RSM. Perhaps most importantly, analysis of PCM item thresholds revealed insufficient variation among responses to compute threshold estimates for every level.

Results from the factor analysis (described in detail in chapter 4) suggested that the MTCS comprises two factors: beyond classroom context and within school context. That is, one group of items appears to address mainly characteristics that are related to the classroom context such as create a classroom that embraces students while the other captures characteristics that are beyond the classroom such as experiential knowledge of the community. Of the 11 items, 2 uniquely loaded on the within classroom context and 6 on beyond school context, and three loaded on both. As discussed in Chapter 4, this finding is consistent with the literature. Model fit improved when the items were separated into two factors instead of including all 11 items. As shown in Tables 8 and 9, student success was the only characteristic that falls outside of the...
acceptable range when all items were examined together. However, that characteristic along
with all others fit better (i.e., were closer to 1) when factors were extracted. In regards to overall
fit, both the PCM and the RSM exhibited good fit with the PCM exhibiting slightly better fit in
all analyses. Again, this difference was not significant enough to warrant selecting the PCM
when considering issues of sample size and reliability of inferences.

Table 8

Rating Scale Model (RSM) and Partial Credit Model (PCM) Item Infit Indices Comparison

<table>
<thead>
<tr>
<th>Envisioned Domain</th>
<th>All Items Infit Index</th>
<th>Beyond Classroom Infit Index</th>
<th>Within Classroom Infit Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RSM</td>
<td>PCM</td>
<td>RSM</td>
</tr>
<tr>
<td>Student Success</td>
<td>1.59</td>
<td>1.24</td>
<td>--</td>
</tr>
<tr>
<td>Classroom Community</td>
<td>1.41</td>
<td>1.15</td>
<td>--</td>
</tr>
<tr>
<td>Sociopolitical Context</td>
<td>1.18</td>
<td>1.08</td>
<td>1.27</td>
</tr>
<tr>
<td>Community Knowledge</td>
<td>1.01</td>
<td>1.16</td>
<td>1.05</td>
</tr>
<tr>
<td>Agent of Change</td>
<td>.96</td>
<td>.99</td>
<td>1.05</td>
</tr>
<tr>
<td>Modify Curriculum</td>
<td>.86</td>
<td>.83</td>
<td>1.03</td>
</tr>
<tr>
<td>Foster Consciousness</td>
<td>.87</td>
<td>.93</td>
<td>.98</td>
</tr>
<tr>
<td>Affirm Students</td>
<td>.86</td>
<td>1.02</td>
<td>.95</td>
</tr>
<tr>
<td>Socioculturally Aware</td>
<td>.83</td>
<td>1.02</td>
<td>.89</td>
</tr>
<tr>
<td>Reflection</td>
<td>.72</td>
<td>.71</td>
<td>.91</td>
</tr>
<tr>
<td>Culture and Context Impact</td>
<td>.82</td>
<td>.98</td>
<td>.83</td>
</tr>
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</table>
Table 9

Rating Scale Model (RSM) and Partial Credit Model (PCM) Item Outfit Indices Comparison

<table>
<thead>
<tr>
<th></th>
<th>All Items Outfit Index</th>
<th>Beyond Classroom Outfit Index</th>
<th>Within Classroom Outfit Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RSM</td>
<td>PCM</td>
<td>RSM</td>
</tr>
<tr>
<td>Student Success</td>
<td>1.54</td>
<td>1.42</td>
<td>--</td>
</tr>
<tr>
<td>Classroom Community</td>
<td>1.27</td>
<td>.99</td>
<td>--</td>
</tr>
<tr>
<td>Sociopolitical Context</td>
<td>1.21</td>
<td>1.17</td>
<td>1.27</td>
</tr>
<tr>
<td>Community Knowledge</td>
<td>1.04</td>
<td>1.17</td>
<td>1.09</td>
</tr>
<tr>
<td>Agent of Change</td>
<td>.92</td>
<td>.92</td>
<td>.97</td>
</tr>
<tr>
<td>Modify Curriculum</td>
<td>.89</td>
<td>.80</td>
<td>.99</td>
</tr>
<tr>
<td>Foster Consciousness</td>
<td>.88</td>
<td>.94</td>
<td>.98</td>
</tr>
<tr>
<td>Affirm Students</td>
<td>.88</td>
<td>1.02</td>
<td>.94</td>
</tr>
<tr>
<td>Socioculturally Aware</td>
<td>.83</td>
<td>1.10</td>
<td>.93</td>
</tr>
<tr>
<td>Reflection</td>
<td>.84</td>
<td>.68</td>
<td>.90</td>
</tr>
<tr>
<td>Culture and Context Impact</td>
<td>.71</td>
<td>.97</td>
<td>.85</td>
</tr>
</tbody>
</table>

Root Mean Squared Deviation:
- All Items: .23, .19
- Beyond Classroom: .12, .04
- Within Classroom: .15, .13

With the RSM selected as the optimal model for the data, it was used to gather evidence of item performance. Even though thresholds are assumed equal in the RSM, where those thresholds are located is an important indicator of item quality. Thresholds for each item (or characteristic) were analyzed for space and range to determine the range captured for each characteristic. Person-Item Maps were analyzed to determine to compare the trait-level estimates for the sample with the difficulty of the items. A scatterplot of the respondents’ trait levels for each factor was generated to compare respondent levels on each factor. A person-item histogram was generated to determine the whether or not the MTCS spanned low, mid, and high levels of the target trait. Taken together these results contributed to a better understanding of multicultural teacher capacity and the characteristics included in the MTCS.
**Ethical Considerations**

The University’s Institutional Review Board (IRB) approved this study. Throughout the project, all participants’ information was secured in a password-protected file accessible only to the researcher. Participation was voluntary and participants were able to decline participation at any time during the study. During focus groups and interviews, participants were able to skip a question or to end. The web-based version of the MTCS allowed respondents to skip questions and to end the survey. Scores from the MTCS were not shared with course instructors, schools, or districts. Scores were intended for research purposes only and not for school-level evaluation.
CHAPTER 4: RESULTS

The results from the methods employed in the previous chapter are presented in this chapter. The purpose of this study was twofold. First, a consolidation of literature identified the characteristics of a multicultural teacher, also referred to as multicultural teacher capacity. Second, the investigation sought to develop, test, and provide initial evidence of validity and reliability for the Multicultural Teacher Capacity Scale, an instrument developed as part of this study to measure the extent to which a teacher possesses the knowledge, skills, and dispositions to promote equity in their classrooms and beyond. In this chapter, I present the results of this study which are organized by the central research questions listed below. The chapter concludes with a summary based on the overall hypotheses of the study. The research questions for this study were:

1. According to contemporary theory, what are the characteristics of a multicultural teacher, as defined by dispositions, knowledge, and skills? and
2. What are the psychometric properties of a newly developed assessment of teachers’ multicultural teacher capacity?

Characteristics of a Multicultural Teacher

The first aim of this study was to identify the characteristics of a multicultural teacher, as defined by dispositions, knowledge, and skills. As documented in the previous chapter, the initial characteristics emerged from the literature, were confirmed by experts, and were
consistent with the guiding elements of culturally relevant and culturally responsive pedagogies. Figure 3 presents the final list of characteristics organized by knowledge, skills, and dispositions.

As secondary confirmation, the characteristics were mapped onto the guiding elements of culturally responsive and culturally relevant pedagogies. As explained previously, multicultural education is not a pedagogy, which required the extension to culturally responsive and culturally relevant pedagogies. To ensure that these characteristics were indeed representative of these prominent pedagogies, it was important to map them back on to their elements. As illustrated in Table 9, the characteristics of multicultural teacher capacity do, in fact, align with the elements of culturally relevant and culturally responsive pedagogies.

Figure 3. Characteristics of Multicultural Teacher Capacity
### Table 10

**Mapping Multicultural Characteristics onto Culturally Responsive and Relevant Pedagogies**

<table>
<thead>
<tr>
<th>Elements of Culturally Relevant Pedagogy</th>
<th>Elements of Culturally Responsive Pedagogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student achievement</td>
<td>Cultural competence</td>
</tr>
<tr>
<td>Cultural competence</td>
<td>Critical consciousness</td>
</tr>
<tr>
<td>Critical diverse knowledge-base</td>
<td>Culturally relevant curricula</td>
</tr>
<tr>
<td>Culturally caring and learning community</td>
<td>Cross-cultural communication</td>
</tr>
<tr>
<td>Cultural congruity</td>
<td></td>
</tr>
</tbody>
</table>

| Socioculturally Aware                    | X                                          |
| Affirm students’ success                 | X                                          |
| Agent of change                          | X                                          |
| Sociopolitical context                   | X                                          |
| Culture/Context Impact                   | X                                          |
| Knowledge of communities                 | X                                          |
| Classroom Community                      | X                                          |
| Critical Reflection                      | X                                          |
| Sociopolitical consciousness             | X                                          |
| Curriculum and pedagogy                  | X                                          |

**NOTE:** Shading indicates the elements of culturally relevant or culturally responsive that overlap with multicultural characteristics.

### Multicultural Teacher Capacity Scale

The *Multicultural Teacher Capacity Scale* (MTCS) was designed as a self-assessment and professional development tool to capture the extent to which teachers are multicultural, or possess the characteristics that promote equity. Each characteristic is described along a continuum of five levels: Nascent, Emerging, Progressing, Advancing, and Transformational.

The MTCS is designed for formative use to better understand where teachers fall on the continuum and to then to aid them in seeking ways to promote growth. Teachers reflect on the 11 multicultural characteristics beginning with the nascent level and then select the level that best describes where they currently are. They then should focus on the subsequent level as a target for development, or ways to sustain if at the transformational level. Multicultural teacher
capacity is organized into three categories: dispositions, knowledge, and skills. The goal of the MTCS is to enable all teachers who take the instrument to locate themselves along that continuum. Teachers classified at the *Nascent* level have not yet acquired multicultural dispositions, knowledge, or skills. Teachers classified at the *Emerging* level are developing an awareness of the respective characteristic, which then becomes acknowledgement and examination of the respective characteristic at the *Progressing* level. Social action begins at the *Advancing* level and is intentional and sustained at the *Transformational level*. The ultimate goal is for teachers to be intentionally engaged in social action that leads to long-lasting changes in their classrooms and beyond. Below, I describe each characteristic and discuss its alignment with culturally relevant and culturally responsive pedagogies.

**Dispositions**

Dispositions are the values, attitudes, and beliefs that shape how teachers interpret knowledge and apply skills. The first disposition of multicultural teachers is that they are *socioculturally aware* and understand the sociopolitical context that shapes their own identity and experiences (Banks, 1996; Cochran-Smith, 1995; Gay & Kirkland, 2003; Haddix, 2008; Ladson-Billings, 2006; Villegas & Lucas, 2002). As Villegas and Lucas (2002) noted, “without this insight, teachers are unable to cross the sociocultural boundaries that separate too many of them from their students” (p. 22). The lack of sociocultural awareness leads to miscommunication, assumptions, and a privileging of experiences (Barnes, 2006; Cochran-Smith, 1995; Howard, 2003; Ladson-Billings, 2006). In order for teachers to develop the cultural competence in their students as described in culturally relevant pedagogy, they themselves also have to be culturally competent. Similarly, sociocultural awareness supports the
culturally diverse knowledge base that Gay (2002) describes in culturally responsive pedagogy. In order for teachers to acquire knowledge about various ethnic groups, they themselves have to first see themselves as cultural beings.

With recognition of themselves as cultural beings, multicultural teachers affirm students’ cultural assets not only by recognizing their students’ cultural capital (i.e., knowledge, skills, and talents), but also the need to access dominant culture to navigate an inequitable system. Ultimately, teachers see students’ cultural capital as an asset and not a detriment to their school success (Howard, 2003; Ladson-Billings, 2006; Yosso, 2006). In addition to affirming students’ cultural capital, several scholars argued for the need to access the “culture of power” (Delpit, 1998). Although both culturally relevant and culturally responsive approaches call for the use of students’ cultural capital, it is framed differently. Gay (2002) refers to student culture as a conduit that is used for instruction and classroom practice. In culturally relevant pedagogy, Ladson-Billings (1995) agrees with Gay (2002) but also suggested the need to acquire wider culture, which other scholars refer to as the culture of power. The second element of culturally relevant pedagogy is cultural competence, which refers to students developing and understanding and appreciation of their own culture. Similarly, affirming students’ cultural capital is consistent with culturally responsive’s elements of culturally diverse knowledge base and cross-cultural communication, which build on students’ cultural capital.

Multicultural teachers are committed to students’ success. In other words they have high expectations of students because they see them as capable. Scholars likened teachers’ commitment to their students as assuming the role of parent (Ladson-Billings, 1995; 2006; Love & Kruger, 2005; Lynn, 2006; Ware, 2006). Culturally relevant pedagogy includes student
achievement as an element, where student circumstances are not used to explain failure (Ladson-Billings, 1995). Instead, the teachers in her study talked about their own shortcomings in helping students succeed. Gay (2002) has asserted that teachers should care so much that they expect only the best of their students, and that this belief underlies the culturally caring and community building elements of culturally responsive pedagogy.

Undergirding the multicultural teachers’ belief that they are agents of change is the belief that the inequities exist and that they can, in fact, enact change (Bergeron, 2008; Gorski, 2013; Ladson-Billings, 2006; Swalwell & Gorski, 2015; Villegas & Lucas, 2002). They understand and take action to confront issues of inequity in their classrooms and beyond. The culturally relevant approach makes more explicit its critical perspective, explaining why the element “agents of change” does not align with any of the culturally responsive elements. The culturally relevant approach espouses the belief that teachers should prepare their students to be agents of change; it is therefore assumed that the teacher sees herself as an agent of change. As Villegas and Lucas (2002) described, teachers see themselves as “both responsible and capable of bringing about the educational change that will make schools more responsive to students” (p. 21).

Knowledge

The next category is knowledge, which is the information that is used to inform the skills. Multicultural teachers understand the sociopolitical context of schools, which means that they understand how social, political, and economic factors in society and community impact their students, and schools (Bergeron, 2008; Cochran-Smith, 1995; Gorski & Swalwell, 2015; Ladson-Billings, 1995; 2006; Paris & Alim, 2014; Swalwell, 2011; Villegas & Lucas, 2002). Although
sociopolitical awareness may be a lofty aspiration that all teachers, Nieto and Bode (2012) noted that many teachers are not aware of sociopolitical issues at the local level (e.g., school board policy and community events) or the larger level (e.g., unemployment, healthcare, and housing). Whereas this characteristic focuses more broadly on the society, the next characteristic looks more specifically at the impact of cultural and context on students’ with a focus on understanding the historical and contemporary role of cultural and cultural difference and their impact on students’ school-related experiences and outcomes (Gay, 2002; Houchen, 2013; Howard, 2003; Ladson-Billings, 2006; Paris & Alim; Villegas & Lucas, 2002; Young, 2010). Often, teachers are aware of the culture and context, but fail to connect it to academic achievement. This characteristic also takes on Paris and Alim’s (2014) challenge to move beyond a static historical perspective of students’ culture and context to understand their identity and experience in both traditional and evolving ways. In addition, multicultural teachers demonstrate experiential knowledge of school and students’ communities (Barnes, 2006; Cochran-Smith, 1995, Ladson-Billings, 1995; 2006; Lynn, 2006; Matsako & Hammerness, 2014). This characteristic calls for multicultural teachers to understand their relationship with and the resources within the students’ and school’s communities in order to better understand their students’ experiences as well as ways to incorporate them into the classroom. Taken together, these knowledge characteristics prepare teachers to develop the critical consciousness included in culturally relevant pedagogy as well as to understand the context needed for the cross-cultural communication espoused by culturally responsive pedagogy.
Skills

Skills describe teaching practices and what teachers do inside and outside of the classroom. Multicultural teachers share power with their students to construct a student-centered environment where students participate as active members; thus, they create a classroom community that embraces students (Barnes, 2006; Bergeron, 2008; Emdin, 2011; Gay, 2002; Houchen, 2013; Howard, 2001; Ladson-Billings, 2006; 2011; Love & Kruger, 2005; Lynn, 2006). The African-American students in Howard’s (2001) study attributed their success to their teacher’s ability to build a community within the classroom and involve students in the learning process. Similarly, Bergeron (2008) found that establishing a classroom community helped to negate cultural disequilibrium and promote supportive conversations among students, which is in line with the cultural congruity between the classroom and students’ lives in culturally responsive pedagogy. Multicultural teachers also engage in critical reflection to guide practice critically self-reflecting and seeking student feedback to become aware of and address biases that can lead to inequitable experiences and outcomes for students (Durden & Truscott, 2013; Gay, 2002; Gay & Kirkland, 2003; Howard, 2003; Houchen, 2013; Nieto & Bode, 2012; Shevalier & McKenzie, 2012; Villegas & Lucas, 2002; Young, 2010). This goes beyond autobiographies to critically reflecting on personal beliefs to uncover biases. Albeit difficult, Howard (2003) and Young (2010) considered this skill to be essential for teachers. It requires honest self-reflection and critique of their own thoughts and behaviors. Ultimately, the ability to use reflection to inform practice supports student achievement as described in culturally relevant pedagogy and the development of culturally relevant curriculum and cultural congruity as described in culturally responsive pedagogy. One characteristic that distinguishes the culturally relevant from
the culturally responsive approach is the expectation that teachers foster the sociopolitical consciousness of students, which means that they facilitate the development of students who are prepared to “combat inequity by being highly competent and critically conscious” (Ladson-Billings, 2011, p. 34). As Ladson-Billings (1995) envisioned, sociopolitical consciousness would extend beyond the classroom to society; this vision has also been echoed by other scholars (Cochran-Smith, 1995; Ladson-Billings, 2006; Love & Kruger, 2005; Paris, 2012; Paris & Alim, 2012; Swalwell, 2011). Although Gay (2002) asserted that students should be critical of curriculum, she did not specifically extend the critique to society. The next skill heeds Banks (1995) warning that multicultural teachers do more than just integrate culturally diverse content. Multicultural teachers modify curriculum and pedagogy to confront issues of equity based on their awareness that traditional curriculum marginalizes some while privileging others (Banks, 1995; Cochran-Smith, 1995; Durden & Truscott, 2013; Emdin, 2011; Gay, 2002; Lynn, 2006). Both the culturally relevant and culturally responsive pedagogies support the need for teachers to “deconstruct, construct, and reconstruct” curriculum (Ladson-Billings, 2006, p. 32). Connected back to the understanding of the sociopolitical context, school context, and student culture, Gorski and Swalwell (2015) contend that it is not “abandoning content but teaching that content (when feasible) through an equity lens” (p. 37). As such, they suggest that:

students can develop formulas for how to best calculate a living wage, examine historical trends in wealth and poverty, or map income data in their own communities. Their findings can become fertile ground for rich discussions, deliberations, and debates about the nature of economic inequality (p. 37).

Taken together, these 11 characteristics outline the knowledge, skills, and dispositions to be a multicultural teacher. Although these characteristics are supported theoretically, empirical
evidence is needed to bolster their association with multicultural teacher capacity. Gathering and evaluating that empirical evidence was the focus of the second portion of this study.

**Psychometric Properties of the Multicultural Teacher Capacity Scale**

Whereas the previous section described the framework that provided the theoretical foundation of the MTCS, this section presents the psychometric properties of the instrument. (A copy of the final instrument is provided in Appendix J.)

The psychometric properties of the MTCS were examined based on data yielded by administration of the MTCS and the MC-C to a sample of currently practicing teachers. Due to the sampling design and web-based delivery of the instrument, the exact number of teachers who received the instrumentation is unknown. However, it is known that the web-based study package was opened 215 times. Of the 215 times it was opened, 113 cases had a summated MTCS score of 0 indicating that they did not respond any of the focal items and were therefore deleted. Of the 112 remaining cases, there were varying levels of responsiveness. There were 35 possible items in the MTCS instrumentation to which participants could respond. The number of omitted items ranged from 0 to 24, although most respondents (n = 103) responded to every question. Benson and Clark’s (1982) recommendation of 7-10 responses per item was adopted as a guideline for conducting analyses of data generated by the MTCS. With 11 characteristics (i.e., items) in the MTCS, the final obtained sample of 112 respondents is well within that range.

**Sample Description**

The sampling frame was any P-12 teacher in the United States. Characteristics of the obtained sample compared with the national teaching force are provided in Table 10; the obtained sample is described briefly here. Of the 34 states represented, North Carolina was the
most represented state with 31 (or 28%) respondents. The sample sizes for other states ranged from 1 to 8. Consistent with the percentages in the current U.S. teaching force (Feistritzer, 2011); the sample was majority White (71%) and female (81%), with the remaining identifying as male (29%), Black (18%), Multiracial (7%), Hispanic (3%), and Asian (1%). A wide variety of ages were represented spanning from 21 to above 51. With 36%, 31-40 was the largest age group represented. Also, many (79%) of these teachers were traditionally prepared and had earned a Master’s degree (74%). With regard to their professional demographics, most respondents (42%) indicated that they taught at the elementary level, although there were also large percentages of respondents who indicated teaching at the junior high and middle school (22%) and high school (34%) levels. There was also a wide range of subject areas and specialties represented; among the largest were English (9%), Social Studies (16%), Math (9%), Science (9%), World Languages (4%), Special Education (9%), and English as a Second Language (7%). (The percentages in Table 10 for some characteristics can exceed 100%; for example, teachers were able to select more than one subject area or specialization, if applicable.) Forty-three percent of the sample reported 11 or more years of teaching experience. A sizeable majority of respondents (72%) reported taking courses related to multicultural education, social justice, and/or diversity during their professional preparation. No further information was gathered regarding the nature of these courses.
Table 11

Personal and Professional Demographics of Survey Respondents and National Teaching Force

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Survey Sample</th>
<th>National Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11</td>
<td>10%</td>
</tr>
<tr>
<td>Female</td>
<td>87</td>
<td>81%</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Black</td>
<td>19</td>
<td>18%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>White</td>
<td>76</td>
<td>71%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>8</td>
<td>7%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>27</td>
<td>25%</td>
</tr>
<tr>
<td>31-40</td>
<td>39</td>
<td>36%</td>
</tr>
<tr>
<td>41-50</td>
<td>19</td>
<td>18%</td>
</tr>
<tr>
<td>51 or above</td>
<td>22</td>
<td>21%</td>
</tr>
<tr>
<td>Professional Preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>85</td>
<td>79%</td>
</tr>
<tr>
<td>Teach for America</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Lateral Entry</td>
<td>19</td>
<td>18%</td>
</tr>
<tr>
<td>Highest Degree Obtained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelors</td>
<td>28</td>
<td>26%</td>
</tr>
<tr>
<td>Masters</td>
<td>74</td>
<td>69%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Primary Level Taught (n = 103)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>44</td>
<td>42%</td>
</tr>
<tr>
<td>Junior High</td>
<td>23</td>
<td>22%</td>
</tr>
<tr>
<td>High School</td>
<td>36</td>
<td>34%</td>
</tr>
<tr>
<td>Subject Taught/Specialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>17</td>
<td>16%</td>
</tr>
<tr>
<td>Math</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>Science</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>World Language</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Elementary</td>
<td>20</td>
<td>19%</td>
</tr>
<tr>
<td>Special Education</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>ESL</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>18%</td>
</tr>
<tr>
<td>Years of Experience (n = 106)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3</td>
<td>21</td>
<td>20%</td>
</tr>
<tr>
<td>4-5</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td>6-10</td>
<td>26</td>
<td>24%</td>
</tr>
<tr>
<td>11+</td>
<td>46</td>
<td>43%</td>
</tr>
<tr>
<td>Relevant Coursework (n = 106)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>76</td>
<td>72%</td>
</tr>
<tr>
<td>No or Unknown</td>
<td>30</td>
<td>28%</td>
</tr>
</tbody>
</table>

NOTE: Sample size is 107 unless noted otherwise
To better understand the school and classroom context of the respondents, demographic items were also included. Following the stems “My school is,” “A majority of students,” or “In my classroom/s” teachers rated their level agreement with each description of school and classroom contexts shown in Table 11. Each item was independent of the other; thus, a response to one item did not affect the other items. Regarding the racial and ethnic diversity at their schools, 26% reported teaching at a predominantly Black school, 18% at a predominantly Hispanic or Latin@ school, and 51% at a predominantly White school. Over half of respondents reported working in schools that are diverse racially and ethnically (62%) as well as culturally and linguistically (66%). As a proxy for socioeconomic status, respondents were asked about their school’s Title I status and whether or not a majority of students received free or reduced lunch. Forty-nine percent reported teaching at a Title I school and 54% at a school where a majority of the students receive free or reduced lunch. Well over a half of the respondents reported having English Language Learners (71%) and students born outside of the United States (76%) in their class.
Table 12

Description of Survey Respondents’ School and Classroom Context (n = 106)

<table>
<thead>
<tr>
<th>Characteristics of School and Classroom Context</th>
<th>Agree</th>
<th></th>
<th>Disagree</th>
<th></th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>School Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predominantly Black</td>
<td>28</td>
<td>26%</td>
<td>77</td>
<td>73%</td>
<td>1</td>
</tr>
<tr>
<td>Predominantly Hispanic</td>
<td>19</td>
<td>18%</td>
<td>84</td>
<td>79%</td>
<td>3</td>
</tr>
<tr>
<td>Predominantly White</td>
<td>54</td>
<td>51%</td>
<td>48</td>
<td>45%</td>
<td>4</td>
</tr>
<tr>
<td>Racially/Ethnically Diverse</td>
<td>66</td>
<td>62%</td>
<td>39</td>
<td>37%</td>
<td>1</td>
</tr>
<tr>
<td>Culturally/Linguistically Diverse</td>
<td>70</td>
<td>66%</td>
<td>35</td>
<td>33%</td>
<td>1</td>
</tr>
<tr>
<td>Title 1 School</td>
<td>51</td>
<td>49%</td>
<td>42</td>
<td>40%</td>
<td>12</td>
</tr>
<tr>
<td>Majority Free/Reduced Lunch</td>
<td>57</td>
<td>54%</td>
<td>40</td>
<td>38%</td>
<td>9</td>
</tr>
<tr>
<td>Classroom Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Language Learners</td>
<td>74</td>
<td>71%</td>
<td>30</td>
<td>29%</td>
<td>1</td>
</tr>
<tr>
<td>Students born outside of the US</td>
<td>81</td>
<td>76%</td>
<td>23</td>
<td>22%</td>
<td>1</td>
</tr>
</tbody>
</table>

Descriptive Statistics

Before any analyses were conducted, descriptive statistics were computed to understand the nature of the data. Each multicultural characteristic was rated on a scale from 1-5, where 1 reflects Nascent level and 5 reflects the Transformational level. There was a tendency of respondents to rate themselves at the higher end of the scale, which indicates a higher level of multicultural teacher capacity. Figure 4 depicts the means across characteristics; Table 12 includes all summary descriptive statistics (i.e., means, standard deviations, minimum values, maximum values, skewness, and kurtosis).
Of the 11 characteristics, four characteristics had a minimum value of 2. Three characteristics had a mean score above 4: “Socioculturally Aware” (M = 4.08), “Committed to Student Success” (M = 4.09), and “Agent of Change” (M = 4.13). Paired with the kurtosis values above 3, this suggests that most respondents reported high levels of these characteristics. With the exception of “Knowledge of Communities,” all other characteristics were negatively skewed. Such high ratings indicate that a majority of the respondents felt that they, overall, had higher levels of the characteristics. Table 12 shows that for 4 of the 11 characteristics the lowest score was not endorsed by any respondents (Affirm Assets, Agent of Change, Context and Culture Impact, and Knowledge of Communities). Lack of variation in responses could be a factor of the format as a self-report measure and of the sampling strategies. Snowball and
convenience sampling, could have limited the sample to a biased sample of teachers who are already familiar with multicultural education. As mentioned earlier, an overwhelming majority of the teachers took a course related to multicultural education, social justice, and/or diversity.

Table 13

Descriptive Summary of the Multicultural Teacher Capacity Characteristics

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioculturally Aware</td>
<td>112</td>
<td>4.08</td>
<td>.72</td>
<td>-.84</td>
<td>5.01</td>
</tr>
<tr>
<td>Affirm Assets</td>
<td>112</td>
<td>3.75</td>
<td>.86</td>
<td>-.42</td>
<td>2.61</td>
</tr>
<tr>
<td>Committed to Success</td>
<td>112</td>
<td>4.09</td>
<td>1.05</td>
<td>-.97</td>
<td>3.07</td>
</tr>
<tr>
<td>Agent of Change</td>
<td>112</td>
<td>4.13</td>
<td>.85</td>
<td>-.59</td>
<td>2.48</td>
</tr>
<tr>
<td>Sociopolitical Context</td>
<td>109</td>
<td>3.50</td>
<td>1.11</td>
<td>-.49</td>
<td>2.56</td>
</tr>
<tr>
<td>Context and Culture Impact</td>
<td>109</td>
<td>3.84</td>
<td>.85</td>
<td>-.33</td>
<td>2.48</td>
</tr>
<tr>
<td>Knowledge of communities</td>
<td>109</td>
<td>3.44</td>
<td>.99</td>
<td>.08</td>
<td>2.00</td>
</tr>
<tr>
<td>Classroom Community</td>
<td>109</td>
<td>3.78</td>
<td>1.14</td>
<td>-.46</td>
<td>1.94</td>
</tr>
<tr>
<td>Critical Reflection</td>
<td>109</td>
<td>3.66</td>
<td>1.03</td>
<td>-.26</td>
<td>2.14</td>
</tr>
<tr>
<td>Sociopolitical Consciousness</td>
<td>109</td>
<td>3.04</td>
<td>1.04</td>
<td>-.17</td>
<td>2.64</td>
</tr>
<tr>
<td>Modify Curriculum and Pedagogy</td>
<td>109</td>
<td>3.31</td>
<td>1.25</td>
<td>-.08</td>
<td>2.19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proportion of Endorsement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioculturally Aware</td>
<td>1%</td>
<td>1%</td>
<td>14%</td>
<td>57%</td>
<td>27%</td>
</tr>
<tr>
<td>Affirm Assets</td>
<td>0%</td>
<td>10%</td>
<td>23%</td>
<td>49%</td>
<td>18%</td>
</tr>
<tr>
<td>Committed to Success</td>
<td>2%</td>
<td>8%</td>
<td>16%</td>
<td>27%</td>
<td>46%</td>
</tr>
<tr>
<td>Agent of Change</td>
<td>0%</td>
<td>4%</td>
<td>20%</td>
<td>38%</td>
<td>39%</td>
</tr>
<tr>
<td>Sociopolitical Context</td>
<td>6%</td>
<td>12%</td>
<td>29%</td>
<td>33%</td>
<td>20%</td>
</tr>
<tr>
<td>Context and Culture Impact</td>
<td>0%</td>
<td>6%</td>
<td>26%</td>
<td>45%</td>
<td>23%</td>
</tr>
<tr>
<td>Knowledge of communities</td>
<td>0%</td>
<td>19%</td>
<td>34%</td>
<td>30%</td>
<td>17%</td>
</tr>
<tr>
<td>Classroom Community</td>
<td>1%</td>
<td>18%</td>
<td>17%</td>
<td>28%</td>
<td>35%</td>
</tr>
<tr>
<td>Critical Reflection</td>
<td>1%</td>
<td>14%</td>
<td>28%</td>
<td>32%</td>
<td>25%</td>
</tr>
<tr>
<td>Sociopolitical Consciousness</td>
<td>9%</td>
<td>17%</td>
<td>41%</td>
<td>25%</td>
<td>7%</td>
</tr>
<tr>
<td>Modify Curriculum and Pedagogy</td>
<td>5%</td>
<td>20%</td>
<td>32%</td>
<td>26%</td>
<td>17%</td>
</tr>
</tbody>
</table>

NOTE: 1=Nascent, 2=Emerging, 3=Progressing, 14=Advancing, 5=Transformational

Factor Analysis

Factor analysis was used to explore the dimensionality of MTCS. Kaiser-Myer-Olkin (KMO) values, which represent a summary of the partial correlation among variables, ranged from .81 or .93, which is well within range to proceed with the factor analysis. According to Kaiser’s criteria, the interpretive adjectives for these values are meritorious and marvelous; thus, the data met the sampling criteria for factor analysis. Principal components analysis using
oblique analysis was conducted after the data were reviewed and cases deleted based on missing values; consequently, the reported results are based on a sample of 109, instead of the 112 (three respondents did not respond to characteristics 5 through 11). This value is slightly higher than the 107 participants who responded to demographic items indicating that two cases in this analysis did not respond to the professional and personal context items presented earlier. The first factor yielded an eigenvalue of 5.36 and accounted for 49% of the variation whereas the second factor yielded an eigenvalue of 1.00 and accounted for only 9% of the variation. Together, the factors account for about 58% of the variation. As shown in Figure 5, the scree plot suggests only one factor. Employing Kaiser’s criteria (1974) of retaining factors with a eigenvalues of 1.0 or above, the second factor was retained.

*Figure 5.* Principal Components Analysis Scree Plot of Eigenvalues
The factor loadings for items in the MTCS are shown in Table 14. Loadings shown in bold type reflect the factor with which the items were most strongly associated. Three of the 11 items, loaded relatively equally on both factors. An in-depth analysis of the MTCS items comprising each factor revealed a new and theoretically meaningful substantive finding: multicultural teacher capacity has a within classroom dimension and a beyond classroom dimension. The within the classroom dimension focuses more specifically on classroom elements such as creating an environment that embraces students and belief in students’ success. The beyond classroom dimension includes items that are external and not directly related to the classroom such as being socioculturally aware and experiential knowledge of the community. These two components are consistent with the literature that describes multicultural teacher as having a critical understanding of society that they are then able to incorporate into their understanding of schools with the goal of creating more equitable outcomes and experiences for their students (Cochran-Smith, 1995; Gorski & Swalwell, 2015; Ladson-Billings, 2006; Nieto, 2000). In addition to the two factors, the findings revealed three items loaded on both factors and, in a conceptual sense, act as “conduits” between the two factors. Those items include: critical reflection, modifying curriculum, and fostering sociopolitical consciousness, and they were also among the most difficult items. Where the items for each factor can be engaged in independently, in order to enact the transformational levels of the anchor items, high levels of multicultural teacher capacity are needed on the other items. For example, it not possible to modify curriculum in the way that it is described in the MTCS without the beyond and within context factors. The converse, however, is not true. It is possible to endorse the transformational
level experiential knowledge (beyond classroom factor) and not have the skill to translate that knowledge into curricular changes.

Table 14

*Factor Loadings for MTCS Items*

<table>
<thead>
<tr>
<th>Characteristic/Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Uniqueness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Socioculturally Aware</td>
<td>0.6882</td>
<td>0.1367</td>
<td>0.5077</td>
</tr>
<tr>
<td>2 Affirm Assets</td>
<td>0.6711</td>
<td>0.2419</td>
<td>0.4911</td>
</tr>
<tr>
<td>3 Committed to Success</td>
<td>0.1686</td>
<td>0.7321</td>
<td>0.4355</td>
</tr>
<tr>
<td>4 Agent of Change</td>
<td>0.6920</td>
<td>0.2259</td>
<td>0.4700</td>
</tr>
<tr>
<td>5 Sociopolitical Context</td>
<td>0.6603</td>
<td>0.2948</td>
<td>0.4771</td>
</tr>
<tr>
<td>6 Context and Culture Impact</td>
<td>0.7443</td>
<td>0.1925</td>
<td>0.4090</td>
</tr>
<tr>
<td>7 Knowledge of communities</td>
<td>0.6071</td>
<td>0.3192</td>
<td>0.5295</td>
</tr>
<tr>
<td>8 Classroom Community</td>
<td>0.1457</td>
<td>0.8682</td>
<td>0.2250</td>
</tr>
<tr>
<td>9 Critical Reflection</td>
<td>0.5567</td>
<td>0.6114</td>
<td>0.3163</td>
</tr>
<tr>
<td>10 Sociopolitical Consciousness</td>
<td>0.4696</td>
<td>0.5928</td>
<td>0.4281</td>
</tr>
<tr>
<td>11 Modify Curriculum and Pedagogy</td>
<td>0.5240</td>
<td>0.6162</td>
<td>0.3457</td>
</tr>
</tbody>
</table>

Of the four multicultural skills (Characteristics 8, 9, 10, and 11), three (9, 10, and 11) loaded on both factors all with slightly stronger associations with the second factor. This finding aligns with the goal of using the community and societal context to shape classroom practice. In order for teachers to develop the sociopolitical consciousness of students, they themselves have to be conscious and they also have to understand the sociopolitical context of the school, community, and society. The same connections can be made between modifying curriculum and pedagogy as well as critical reflection to guide practice. Only two items (Characteristics 3 and 11) uniquely loaded on the second factor, committed to students’ success and creating a classroom community that embraces students. Both of these items are specific to the within classroom context. Figure 6 presents multicultural teacher capacity as a two-dimensional model with three cross-loading items/characteristics.
As another indicator of internal structure, item-total correlations and inter-item correlations were calculated. Because results from the EFA showed two factors, item-total correlations were calculated by factor, instead of whole instrument. Item-total correlations ranged from .53 to .70 for factor 1 and .55 to .70 for factor 2. These results suggest that the items are indeed capturing the same construct. As shown in Table 15, all inter-item correlations were moderate to strong, with values ranging from .37 to .65 on factor 1 and from .42 to .67 on factor 2. Taken together these findings suggest that the characteristics measured by the MCTS are related to the construct of interest, multicultural teacher capacity, and support the presence of two distinct aspects of that construct.
Table 15
Inter-Item Correlation Matrix

<table>
<thead>
<tr>
<th>Factor 1: Beyond School Context</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Socioculturally Aware</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Affirm Students</td>
<td>.57</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Agent of Change</td>
<td>.49</td>
<td>.60</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Sociopolitical context</td>
<td>.48</td>
<td>.44</td>
<td>.56</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Culture Context Impact</td>
<td>.52</td>
<td>.53</td>
<td>.52</td>
<td>.50</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Knowledge of communities</td>
<td>.43</td>
<td>.41</td>
<td>.50</td>
<td>.45</td>
<td>.51</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Critical Reflection</td>
<td>.59</td>
<td>.57</td>
<td>.57</td>
<td>.56</td>
<td>.53</td>
<td>.59</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Sociopolitical consciousness</td>
<td>.40</td>
<td>.37</td>
<td>.57</td>
<td>.59</td>
<td>.52</td>
<td>.53</td>
<td>.60</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>9 Modify curriculum and pedagogy</td>
<td>.53</td>
<td>.55</td>
<td>.40</td>
<td>.52</td>
<td>.65</td>
<td>.59</td>
<td>.62</td>
<td>.62</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 2: Within School Context</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Students’ success</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Classroom Community</td>
<td>.49</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Critical Reflection</td>
<td>.65</td>
<td>.56</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Sociopolitical consciousness</td>
<td>.42</td>
<td>.62</td>
<td>.60</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Modify curriculum and pedagogy</td>
<td>.47</td>
<td>.67</td>
<td>.62</td>
<td>.62</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reliability Analysis

Reliability was estimated using Cronbach’s alpha. Cronbach’s alpha for the overall instrument was .89. However, because a two-factor model was suggested by the results from the EFA, it is more appropriate to report the reliability of each factor. Cronbach’s alpha for the six items measuring beyond school context was .81; when the three cross-loading items were included, alpha increased to .88. The two items measuring within school context had an alpha of .64; when the three cross-loading items were included, alpha increased to .84. The correlation of respondents’ raw subscores on the six items measuring beyond school context and two items measuring within school context was .76.
Correlational Analysis

Responses to the Marlowe-Crown Form C were analyzed to determine the likelihood that respondents responded in socially desirable ways—a key validity concern. First the reliability of the M-C Form C was examined to better understand how the instrument performed with this sample. An alpha of .66, though favorable is less than what was reported in other studies. Also, although a negligible association was desired between the MTCS and the M-C Form C, the moderately positive association ($r = .47, p < .05$) suggested that social desirability affected participants’ responses. This finding is consistent with the negatively skewed distribution of responses on 10 out of the 11 characteristics/items, indicating that respondents are likely to rate themselves as being higher on the MTCS than they actually are. Such a finding, suggests that the MTCS may not have captured actual levels of multicultural teaching capacity, and that additional data collection and data collection designs (e.g., observations and interviews) may be desirable to better understand respondents levels of multicultural teaching capacity.

Item Response Theory Analyses

Item Response Theory (IRT) was used to further examine the structure of the MTCS, where all characteristics were assumed to have the same number of levels. As described in the previous chapter, the rating scale model (RSM) was selected for analyzing the category structure of the MTCS over the partial credit model (PCM), which assumes varying levels for each item. The RSM is consistent with the design of the MTCS, with polytomous responses. Analysis of the category structure of the MTCS items was used to investigate the thresholds between adjacent response levels, and the additional amount of the overall construct—multicultural teaching capacity—necessary for a respondent to move from endorsing a statement at one level
(e.g., *Nascent*) to another (e.g., *Emerging*). Although the locations for the MTCS items were arbitrarily centered about 0, the spacing between the values is useful to provide an understanding of the response structure. For example, as shown in Figure 7, -2.70 is the value on the construct, multicultural teaching capacity, that represents the degree of that construct that separates responses of *Nascent* and *Emerging*. That is, -2.70 is the threshold between those two response categories. A value of -1.02 is the value on the construct that represents the threshold between the categories of *Emerging* and *Progressing*. The difference between those thresholds of 1.68 logits can be thought of as the “distance” between the categories, or the degree of multicultural teaching capacity separating the two response categories. Similarly, the threshold separating *Progressing* and *Advancing* is .68; and the category threshold separating *Advancing* and *Transformational* is 3.04. Consistent with the design of the MTCS, each transition requires an increasing amount of multicultural teacher capacity. Finally, the RSM analysis provided important information about the category structure of the MTCS by examining the “distances” between the thresholds. For example, there is a wider gap between the last two transitions (2.36) when compared to the first two (1.68 and .34, respectively). This indicates that the differences between *Advancing* and *Transformational*. Even with a wide range from -2.7 to 3.04, these categories may not be fine-grained enough to capture differences and that another category may be needed.
Following an examination of the overall category structure, I focused more specifically on the items. Within the framework of IRT the difficulty of an item can be thought of as its scale location—that is, the location of the item on a scale that captures how easy or hard it is for respondents to endorse a given statement about multicultural teaching capacity. The scale of these item locations runs from approximately -3.0 (a statement that would be very easily endorsed by teachers) to +3.0 (a statement that very few teachers would endorse). The process of item calibration was conducted to obtain the scale locations of all MTCS items. However, because of the presence of two factors—that is, because two distinct aspects of multicultural teaching competence were discovered—it would not be appropriate to calibrate all of the items together. Rather, items were put on the same location scale using the process of equating.
A two-step procedure was used to conduct the equating and scaling. First, the nine items comprising the beyond school context aspect of multicultural teaching capacity were calibrated. This collection of items included the three items that loaded on both aspects, beyond classroom context and within classroom context. Scale locations (i.e., calibrations) for this set of items were then obtained using the software Winsteps (Linacre, 2015b). Next, the three cross-loading items were then used as “anchor” items in a second calibration which was then conducted to bring the two items comprising the within classroom aspect of multicultural teaching capacity onto the same scale as had been established for the beyond classroom context items. That is, in addition to including in the second calibration run the two items measuring the within classroom aspect, the three anchor items were also included. In this second calibration, the location parameter estimates of the three anchor items were fixed to their values from the first calibration, allowing the two items to be calibrated onto the same scale as the previously calibrated items representing the beyond classroom aspect.

The scale locations for all 11 characteristics/items are shown in Table 16. The scale of “difficulty”—that is, the degree of multicultural teaching capacity required to endorse an item spanned a range from -1.19 to 1.33. These values (and the standard errors of the location parameter estimates) are shown in Table 16 in the columns labeled “MTCS Trait Level” and “Standard Error”, respectively. Overall this range of scale locations is somewhat narrow, suggesting that the collection of items in the MTCS might not tap into very high or very low levels of multicultural teacher capacity. The final column in Table 16, labeled “Point Measure Correlation” provides the Pearson correlation between responses to a particular item and scores on the total test, excluding that item. With values greater than 0.4 and slight differences between
expected and observed values, the items appear to be performing well and consistent with multicultural teacher capacity.

**Table 16**

Rating Scale Model Analysis of MTCS Items

<table>
<thead>
<tr>
<th>Factor 1 – Beyond School Context</th>
<th>MTCS Trait Level</th>
<th>Standard Error</th>
<th>Point Measure Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agent of Change</td>
<td>-1.19</td>
<td>.14</td>
<td>.66</td>
</tr>
<tr>
<td>Socioculturally Aware</td>
<td>-1.06</td>
<td>.16</td>
<td>.63</td>
</tr>
<tr>
<td>Impact of Culture and Context</td>
<td>-.43</td>
<td>.15</td>
<td>.70</td>
</tr>
<tr>
<td>Affirm Students</td>
<td>-.24</td>
<td>.14</td>
<td>.67</td>
</tr>
<tr>
<td>Sociopolitical Context of Schools</td>
<td>.35</td>
<td>.14</td>
<td>.70</td>
</tr>
<tr>
<td>Community Knowledge</td>
<td>.49</td>
<td>.14</td>
<td>.69</td>
</tr>
<tr>
<td>(Anchor Item) Critical Reflection</td>
<td>.00</td>
<td>.14</td>
<td>.76</td>
</tr>
<tr>
<td>(Anchor Item) Modify Curriculum</td>
<td>.76</td>
<td>.14</td>
<td>.76</td>
</tr>
<tr>
<td>(Anchor Item) Foster Consciousness</td>
<td>1.33</td>
<td>.14</td>
<td>.74</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 2 – Within School Context</th>
<th>MTCS Trait Level</th>
<th>Standard Error</th>
<th>Point Measure Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Success</td>
<td>-1.17</td>
<td>.19</td>
<td>.67</td>
</tr>
<tr>
<td>Classroom Community</td>
<td>-.32</td>
<td>.16</td>
<td>.78</td>
</tr>
</tbody>
</table>

To further add to the validation evidence regarding test content, I compared my hypothesized order of item difficulties, or how easy or hard I thought it would be for respondents to endorse an item, to the empirically-obtained order (see Table 17). There were minimal discrepancies between the two. Based on the literature reviewed formed the theoretical foundation for the MTCS, I hypothesized that sociopolitical context would have been more difficult than community knowledge, and I also hypothesized student success would have been the easiest item. However, according to the data agent of change is the easiest. In both cases, the differences between the hypothesized and empirical difficulties appeared to be quite small. These observations are supported by the value of the rank order correlation coefficient, which
was calculated to be .98. Overall, these findings suggest that the items are performing as expected. However, taking into consideration the standard errors, which ranged from .14 to .19, the differences in the difficulty of the characteristics may not be firm.

Table 17

Hypothesized and Empirical Order of Characteristic Difficulties and Classifications

<table>
<thead>
<tr>
<th>Hypothesized Order of Difficulty</th>
<th>Empirical Order of Difficulty</th>
<th>Characteristic Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most Difficult</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Foster Consciousness</td>
<td>1. Foster Consciousness</td>
<td>Skill</td>
</tr>
<tr>
<td>2. Modify Curriculum</td>
<td>2. Modify Curriculum</td>
<td>Skill</td>
</tr>
<tr>
<td>5. Critical Reflection</td>
<td>5. Critical Reflection</td>
<td>Skill</td>
</tr>
<tr>
<td>6. Affirm students</td>
<td>6. Affirm Students</td>
<td>Disposition</td>
</tr>
<tr>
<td>7. Classroom Community</td>
<td>7. Classroom Community</td>
<td>Skill</td>
</tr>
<tr>
<td>10. Agent of Change</td>
<td>10. Student Success</td>
<td>Disposition</td>
</tr>
<tr>
<td>11. Student Success</td>
<td>11. Agent of Change</td>
<td>Disposition</td>
</tr>
</tbody>
</table>

The calibration of the 11 items in the MTCS allowed the items to be used to obtain estimates of the standing of each respondent on the MTCS. That is, in addition to locating each item along a scale of difficulty, the location of each person on the continuum of multicultural teaching capacity could then be estimated. The histograms presented in Figure 8 illustrate the range of calibrations for both the items in the MTCS and the persons who responded to it. As can be seen in Figure 8, for both aspects of the MTCS—Beyond Classroom Context and Within Classroom Context—the person locations tend to be, on average, higher than the item locations, indicating that the items tend to tap into the lower levels of multicultural teacher capacity, but do not tap into the higher levels. Thus, the MTCS in its current form is perhaps best suited for use with individuals who are at the earlier stages of multicultural teaching capacity (e.g., pre-service
teachers). For the future, more items may need to be developed and validated to tap into the higher levels. This finding is consistent with the negative skewness of the raw scores, which indicated that fewer respondents endorsed the lower levels (i.e., Nascent and Emerging).

![Figure 8. Person Item Histograms for Factors 1 and 2 Using the Rating Scale Model](image)

The person location estimates—that is, the trait levels for each teacher on both factors—were compared to better understand the relationship between the two factors. A scatterplot of trait level estimates on both factors revealed a positive linear relationship (see Figure 9), with a correlation between trait estimate scores on the two aspects of beyond classroom context and within classroom context. This indicates that teachers who scored high on one aspect of multicultural teaching capacity tended to score high on the other. As can be seen in the figure,
most teachers in this sample fell into Quadrant I, scoring high on both factors. There were a few teachers whose trait levels on both factors were inversely related (Quadrants II and IV).

**Figure 9. Scatterplot Comparing Performance on Factor 1 and Factor 2**

Overall, the results of the IRT analyses supported the hypothesized structure of the MTCS. Even though items performed favorably, results suggest that they do not span as wide a range as would be desirable to measure the full range of multicultural teaching capacity. There
were not sufficient items in the MTCS to adequately measure those who possess very high or very low levels of multicultural teacher capacity. The positive relationship between the two factors suggests that performance on one factor is related to performance on the other.

**Thematic Analysis of Open-Ended Item**

The final piece of data collected during the web-based administration was an open-ended item that asked respondents to provide any additional feedback regarding the MTCS, the demographic items, and/or their overall experience with the study. Thematic analysis revealed three themes: resistance, technical concerns, and use. The theme of resistance emerged from responses that noted the difficulty of being multicultural as described in the MTCS in the current educational climate. As one respondent lamented “It has become difficult to teach in ways that involve deconstructing one’s past…when our hands are tied with mandates.” Other respondents who felt that their curriculum or school context was a barrier echoed this sentiment as well. The technical concerns theme was reflected in comments regarding the limitation of the racial and ethnic category, which lacked a Middle Eastern category. The final theme that emerged was related to intended use. Although the aforementioned themes merit further exploration, the theme of use is most relevant to the validation process and the purpose of the instrument. Not only are inferences from scores validated, but evidence justifying the intended uses scores should be gathered and evaluated (Cizek, 2012). Justifying the intended use for professional development and reflection was not the focus of the study, yet a theme related to justification emerged. Survey respondents and experts alike commented on the potential uses of the tool. Several (n = 3) respondents suggested that the tool be used for professional development. A university professor, who participated as an expert, requested to use the tool to guide a
discussion with her colleagues around the reshaping of their teacher education program.

Similarly, a district equity officer saw the MTCS as useful to include among the resources that he currently uses with teachers. Consistent with the goal of self-reflection one respondent noted “[it] made me think about my teaching practices.” An example of critical reflection was evident in the following response:

\[\text{Although I consider myself well along the road of racial equity and culturally relevant teaching, I continually look for ways to increase my knowledge, skills, and awareness. Many survey questions provided context for some of my beliefs and practices. The questions also gave me much food for thought and pointed to places where I still have room for growth. (Survey respondent)}\]

Understanding that these findings are exploratory they should be interpreted with caution, but they do provide preliminary evidence for justification of the MTCS used as a tool for self-reflection and professional development.

**Summary of Findings**

The purpose of this study was twofold. First, I identified the characteristics of a multicultural teacher based on a consolidation of literature. Second, I developed, administered, and gathered evidence of validity of scores yielded by an instrument designed to measure the construct of multicultural teaching capacity. As shown in Table 18 below, there were six hypotheses examined in this study. The first hypothesis was that validity of MTCS scores would be supported by several qualitative sources of evidence, including: agreement among experts regarding relevance and representativeness; alignment with the elements of culturally relevant and culturally responsive pedagogy identified in the literature; and consistency between the hypothesized and empirical difficulty levels of the MTCS items. Findings indicated that the 11 characteristics of multicultural teacher capacity that emerged from the literature were consistent
with culturally relevant and culturally responsive pedagogies and agreed upon by field experts. When hypothesized and actual difficulty levels of the MTCS items were compared, there were only slight differences in the rank ordering. The second hypothesis was that scores on the MTCS would demonstrate strong internal consistency. Moderate to strong inter-item correlations and an alpha between .70 and .90 supported this hypothesis. The theoretical assertion that there are two aspects of multicultural teaching capacity was supported by an alpha of .88 for factor 1 (Beyond School Context) and .84 for factor 2 (Within School Context) and item-total correlations between .52 and .76. The third hypothesis related to internal structure was that each item would have a loading of .32 or above on a factor. Exploratory factor analysis yielded two factors that together accounted for 58% of the variation and all items had a factor loading above .32. A scatterplot comparing trait levels on each factor indicated a positive relationship. The fourth hypothesis was that Rating Scale Model would yield a better fit to the data than the Partial Credit Model. This hypothesis was not adequately supported. Though results showed that the PCM yielded slightly better fit, it was not significant enough to warrant model selection given concerns regarding sample size. The fifth hypothesis was that characteristics will capture low, mid, and high ranges of multicultural teacher capacity as indicated by person-item map. This hypothesis was not supported as items only captured low and mid ranges of multicultural teacher capacity. The sixth hypothesis was that a divergent association between multicultural teaching capacity and social desirability in responding would be indicated by a low to moderate association between MTCS and M-C Form C scores. This was not supported by the obtained correlation of scores on those measures of .47. Finally, an exploratory analysis of feedback from
respondents provided initial support for the use of MTCS scores for professional development and self-assessment.
## Table 18

### Overview of Instrument Development Goals, Hypotheses and Results

<table>
<thead>
<tr>
<th>Evidence</th>
<th>Development Goals</th>
<th>Hypotheses</th>
<th>Results</th>
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</table>
| **Test Content** | **Demonstrate content validity of the MTCS** |  | • The 11 characteristics aligned with culturally relevant and culturally responsive elements and were confirmed by field experts  
• There was slight variation between the hypothesized and actual item difficulty levels |
| **Internal Consistency Reliability** | **Establish the consistency of the scores** | Scores will demonstrate consistency to score inferences as indicated by moderate to high correlations and Cronbach’s alpha will be between .7 and .9 for each factor. | • Cronbach’s alpha is .81 for factor 1 (.88 with cross-loading items) and was .64 for factor 2 (.84 with cross-loading items)  
• Item correlations ranged between .37 and .70 for factor 1 and between .45 and .70 for factor 2. |
| **Internal Structure** | **Examine the factor structure** | Each item will have loading of .30 or above on a factor. | • EFA yielded two factors: beyond classroom and within classroom context  
• Factor 1: eigenvalue of 5.36, 49% of the variation, 6 unique items  
• Factor 2: eigenvalue of 1.00, 9% of the variation, 2 unique items  
• Between factors r = .76  
• Three items loaded on both  
• All loadings were above .32  
• Positive association between trait levels between factors |
| **Evaluate the structural matrix design** | The Rating Scale Model will yield a better fit index when compared to Partial Credit Model. | Both PCM and RSM yielded acceptable fit indices, between 0.5 and 1. PCM did not fit significantly better to warrant model selection  
• Fit improved when accounting for the two factors  
• Threshold values were -2.70, -1.02, .68, and 3.04 (respectively ) |
| **Examine the performance of each characteristic** | Characteristics will capture low, mid, and high ranges of multicultural teacher capacity as indicated by person-item map. | Characteristics captured low and mid ranges, but did not capture higher ranges |
| **Association with other variables** | **Establish an association between the MTCS and social desirability** | A divergent association will be indicated by a low to moderate association between MTCS and M-C Form C scores. | Evidence of social desirability indicated by r = .47; accounting for about 20% of the variance in MTCS responses. |
CHAPTER 5: DISCUSSION

The main purposes of this study were to derive an operational definition of what it means to be a multicultural teacher, and to develop a reliable and valid measure of multicultural teaching capacity. In the previous chapter I reported the results regarding the reliability and validity of the newly developed instrument, the Multicultural Teacher Capacity Scale (MTCS). In this chapter, I begin with an overview of the study, an interpretation of the findings, and a presentation of the limitations. I then discuss the implications for teachers, schools, teacher educators, and researchers. I conclude the chapter with directions for future research.

Overview of the Study

This study sought to (1) provide an operational definition of a multicultural teacher and (2) examine the psychometric properties the Multicultural Teacher Capacity Scale. Although scholars have grappled with assessment of constructs related to multicultural education, none of the instruments related to multicultural education reviewed in this study met all of the criteria that were deemed essential for assessment of multicultural teaching capacity: theoretical foundation, broad scope of multicultural issues, transformative orientation, designed for personal growth, and psychometric support. Accordingly, the MTCS was designed to meet all of the criteria using an exploratory, sequential, three-phase, mixed-method research design for instrument development and validation.

During the first phase, the goal was instrument construction. Banks (2010) describes multicultural education as an idea, a process, and a reform movement, but not pedagogy. Thus, the literature review extended to include culturally relevant and culturally responsive pedagogies,
which are among the most prominent culturally centered approaches stemming from multicultural education.

During the second phase, the goal was instrument review and revision. Experts familiar with teacher education and the field of multicultural education along with former teachers reviewed various versions of the instrument and provided feedback. Based on their feedback, I revised the instrument to produce the version that was administered in the final phase.

During the third phase, the goal was instrument evaluation. The instrument was distributed as a web-based survey. Data from 112 inservice teachers was used to examine the psychometric properties of the instrument. Results of the study were presented in chapter IV, wherein three of the six hypotheses were adequately supported.

**Summary of Findings**

First, the study sought to provide an operational definition of what it means to be a multicultural teacher, or multicultural teacher capacity. A review of literature revealed 11 characteristics, which were organized by dispositions, knowledge, and skills. Multicultural teachers are *socioculturally aware, affirm students’ cultural assets, are committed to students’ success, are agents of change, understand the sociopolitical context of schools, understand the impact of context and culture, demonstrate experiential knowledge of the school and students’ communities, create a classroom that embraces students, engage in critical reflection to guide practice, foster the sociopolitical consciousness of students, and modify curriculum and pedagogy to confront issues of equity.*

Second, the study sought to develop and then examine the psychometric properties of the newly developed instrument, the *Multicultural Teacher Capacity Scale.* The 11 aforementioned characteristics were described along a continuum of five successive levels that lead to social
action: Nascent, Emerging, Progressing, Advancing, and Transformational. The validation of the instrument was guided by six hypotheses; for each of the hypotheses, varying levels of support were found.

The first hypothesis was that the MTCS would demonstrate acceptable evidence of validity based on test content. This hypothesis was supported by the alignment of the characteristics with the elements of culturally relevant and culturally responsive pedagogies along with review and confirmation from field experts. The emergence of 11 characteristics demonstrates that being multicultural teaching capacity includes not only skills, but also a specific set of dispositions and knowledge. When organized by difficulty level, modifying curriculum was one of the most difficult characteristics as it was less likely for teachers to rate themselves at the higher levels compared to other characteristics, followed by fostering sociopolitical consciousness in students. In light of current practice and theory, this suggests that modifying curriculum is more than just superficial changes to the curriculum or the addition of a lesson. Banks and Banks (1997) outlined the four levels of multicultural integration to make explicit the move from an additive model of disparate lessons to a change in pedagogy. Their aim is further extended by identifying 11 characteristics of a multicultural teacher. It is also important to note that among the least difficult characteristics are being an agent of change and being committed to student success. In other words, teachers were more likely to rate themselves as high on these characteristics compared to others. This finding paired with the most difficult characteristics, modifying curriculum and fostering sociopolitical consciousness of students suggests that although teachers possess intentions that are consistent with being a multicultural teacher, there is a gap between translating these intentions into actionable skills and experiential knowledge.
The fundamental objective of this study was to develop and present an instrument that would yield valid and reliable inferences about multicultural teaching capacity. Thus, the second hypothesis was that the newly developed MTCS would yield dependable scores, which was demonstrated through moderate to high indices of internal consistency. The finding of strong internal consistency is not only evidence of reliability, but also provides evidence of internal structure of the MTCS; that is, evidence that the 11 characteristics measured by the MTCS are associated with a common construct—multicultural teacher capacity.

The third hypothesis examined the internal structure and was that each characteristic would be highly correlated with a dimension. The MTCS was developed without any expectations regarding dimensionality. Dispositions, knowledge, and skills represent common facets of competence, but were not designed to be dimensions. An exploratory factor analysis revealed two dimensions of multicultural teacher capacity: within school context and beyond school context. The within the classroom context factor focuses more specifically on classroom elements such as creating an environment that embraces students and belief in students’ success. The beyond classroom context factor includes items that are external and not directly related to the classroom such as being socioculturally aware and experiential knowledge of the community.

Although these aspects did not drive instrument development, they are consistent with current literature in that the literature describes the multicultural teacher as having a critical understanding of society that they are then able to incorporate into their understanding of schools with the goal of creating more equitable outcomes and experiences for their students (Cochran-Smith, 1995; Gorski & Swalwell, 2015; Ladson-Billings, 2006; Nieto, 2000).

The fourth hypothesis was that the response structure of the MTCS would be supported by a Rating Scale Model (RSM) analysis, which would yield better fit to the data compared to
the Partial Credit Model (PCM). The four levels identified by Banks (1995) and Lee (1995) informed the development of the five levels of multicultural teacher capacity in the MTCS: *Nascent, Emerging, Progressing, Advancing,* and *Transformational.* Although both models yielded acceptable fit indices, the RSM was selected because differences in fit produced by the two approaches were minimal, and because the comparatively smaller sample size requirements of the RSM were better suited for the interpretation of findings. In He and Wheadon’s (2013) study, they found that a minimum sample of 300 would be needed to yield dependable findings when the PCM is used; thus, it would be desirable to replicate this study with a minimum sample of 300. Initial evidence also suggested that there is another level needed before *Transformational,* the highest level. The current descriptors may not be fine-grained enough to distinguish between *Advancing* and *Transformational,* and the addition of another level would provide greater precision and diagnostic value for teachers as they progress through the levels.

The fifth hypothesis was that the characteristics measured by the MTCS would capture low, mid, and high levels of multicultural teacher capacity. However, results showed that the range of multicultural teacher capacity in the sample was restricted and failed to tap into higher levels. There are several possible explanations for this finding. For one, 72% of the teachers in the sample reported taking courses related to multicultural education, social justice, and/or diversity during their professional development. No further information was gathered regarding the nature of these courses, but as scholars (Gorski & Swalwell, 2015; Nieto, 2000; Ladson-Billings, 2011) have pointed out many multicultural initiatives are sanitized and neglect issues of equity. It is possible that these teachers’ exposure to these courses may have influenced their reflection of themselves as possessing higher levels of the multicultural teacher characteristics. Due to the convenience and snowball sampling strategies, it is also possible that for this sample
of teachers their endorsed and enacted levels are consistent. This finding points to additional questions, such as; “How do teachers understand the characteristics and their respective levels?” and “To what extent are endorsed levels consistent with their espoused levels?” The answers to these questions will help further clarify the appropriate inferences from scores on the MTCS.

The sixth hypothesis was that the construct validity for the MTCS would be supported by a divergent association between scores on the MTCS and scores on a measure of social desirability. This hypothesis was not supported, as there was a tendency for participants to respond in a favorable manner. According to Traub and Rowley (1991) score inferences are influenced by three factors: the test instrument itself, the testing conditions, and the test-takers. With regard to the MTCS instrument, although there were no right or wrong answers, the labels and language of the descriptors made obvious the successive order of the response options, where the last level represented the highest level. During a focus group, one participant commented on the similarity between the structure of the MTCS and other teacher evaluations where the second to last column is proficient and where most teachers tend to rate themselves. This pattern was evident with most responses falling in the upper range. In terms of the testing conditions, the MTCS was distributed via the web and was self-administered by participants under uncontrolled, non-standardized conditions. Responses were kept confidential, no feedback or guidance was provided to respondents, and there was no immediate or obvious benefit to providing honest answers. Finally, given the nature of the content, multicultural teacher capacity could be considered a sensitive topic. Thus, it is possible that some respondents may not want to disclose their true attitudes toward some of the characteristics measured by the MTCS. For example, they may not want to admit that they do not believe that all students can be successful or that they do not provide opportunities for all students to demonstrate their cultural capital, or
admit that they are not familiar with these expectations. It is also possible, through item context effects, that that mindset influenced responses on the social desirability scale. For example, one focus-group participant stated that she was caught off-guard by the items on the social desirability scale that followed the MTCS in the web-based survey. She felt that I “was up to something and trying to trick [her].”

Overall, the three goals of the MTCS development and evaluation were met: demonstrating the content validity, establishing the dependability of the scores, and examining the factor structure. Further examination is needed to explore the format of the instrument, to ensure that all levels of multicultural teacher capacity are captured, and to reduce the potential for responses to be influenced by a desire to respond in a socially desirable manner.

**Limitations of the Study**

Although many design features and analyses were implemented to conduct a rigorous study and to minimize threats to validity, it is important to acknowledge some limitations. Although this study introduced a new construct and instrument to the field of multicultural education, the findings should be interpreted cautiously.

First, the MTCS is intended to be a self-report instrument designed to gain information about teachers’ dispositions, knowledge, and skills theorized to promote educational equity. The degree to which this self-report measure actually reflects general and special educators’ classroom practices is an important study limitation. One important issue related to self-report is the potential for response bias (Green et al., 2005), which was confirmed by the positive relationship between the multicultural teacher capacity (as measured by the MTCS) and social desirability (as measured by the M-C Form C). The relationship between attitudes-beliefs and a
tendency to respond to a survey in a socially desirable way is critical and can impair straightforward interpretations of results.

Another limitation of the study was the restricted sample size and composition. The sampling procedures used could also limit the generalizability of the findings. As a self-report measure administered to a convenience and snowball-selected sample, there could be a substantial difference between those who opted to respond and those who did not, and there may be systematic or unique characteristics of those who were invited to respond.

Time presents a limitation as well. Validation is an ongoing process and this study is only initial step conducted over the course of eight months. As such, the absence of longitudinal data impedes validating the use of the instrument as a tool for personal growth. Also, the focus on the development and validation of the MTCS leaves the examination of outcomes to future research. Scholars such as Ogbu (1992) and Zirkel (2005) have called multicultural education into question by inquiring about the extent to which multicultural education has actually improved the academic performance of historically marginalized students. After more than 30 years since the emergence of multicultural education, I believe we should begin to address their questions. With inferences from scores validated, their associations with students’ experiences and outcomes have the potential to empirically support multicultural education. Nonetheless, even when considering the limitations, the study has implications for teachers, schools, teacher educators, and researchers, which are discussed below.

**Implications for Practice and Research**

Much evidence was gathered in this study that supports the intended score inferences from the MTCS. Although there is a need for further examination of the structural design, the range of response options, and the proclivity to responding in a socially desirable manner, the
MTCS appears to be a promising instrument at this stage. First, the results of this study speak to the complexity of multicultural education. Much of what exists in the literature and assessment frames cultural mismatch as the problem affecting success for all students, and is concerned primarily with the lack of diversity in a teaching force that does not mirror a student population that is becoming increasingly diverse (Feistritzer, 2011). As Nieto (2000) pointed out, equity should be at the center of multicultural initiatives; the fact they are not should be addressed (Gorski & Swalwell, 2015). The model of multicultural teacher capacity developed in this study, suggests that there are not only multiple characteristics that comprise multicultural teaching capacity, but also that these levels can be expressed along a continuum of various degrees. Thus, the following implications for practice are aimed to support teachers, schools and teacher educators in preparing multicultural teachers. The development and validation process also speaks to the difficulty in capturing such a complex construct thereby leading to additional implications for researchers.

**Implications for Teachers**

The “vision, knowledge, and commitment of the nation’s educators” are key to the progress of multicultural education (Banks, 2007, p. 16). They will have to “take a stand on multicultural education and determine what actions to take in their classrooms and schools” (Banks, 2007, p. 16). Often, inservice teachers are misguided by what it means to be a multicultural teacher (10TV News, 2009; ABC News, 2012; CBS, 2009). Thus, they are ultimately not prepared to meet the needs of their diverse classroom (Buehler, Gere, Dallavis, & Haviland, 2009; Garmon, 2004; Milner, 2005). Becoming a multicultural educator involves the “process of accommodating new information and developing beliefs is thus gradual, one of taking initial steps, accepting and rejecting certain ideas, modifying existing beliefs, and finally
accepting new ideas” (Pajares, 1993, p. 45). Multicultural education calls teachers to challenge the traditional model of schools, and to confront issues of equity. This challenge is as much professional as it is personal. Guidance and clarity regarding these challenges was obtained in the process of developing the MTCS, which yielded 11 characteristics of multicultural teachers. Further, these characteristics are described at 5 levels that progress towards the ultimate goal of sustained social action.

The format of the MTCS communicates to teachers that multicultural teaching capacity is not a binary status or yes/no dichotomy, but a continuum. This is helpful for teachers to visualize what multicultural looks like at various levels. In addition, the multifaceted organization of the MTCS makes explicit that multicultural education is not just something that teachers do, but is a comprehensive model that includes dispositions, knowledge, and skills.

In the era of assessment, teacher evaluations are increasing. In that context, the instrument can also be used to supplement current evaluation protocols, as pointed out by one respondent. According to her recent evaluation, she was distinguished in all areas; however, she remarked that the MTCS provided another lens to examine her practice and set new goals. Such is one of the intended uses of the instrument.

Table 16 presents the characteristics measured by the MTCS organized into coherent groupings that could be used in the future to create training modules based on the difficulty levels provided by the IRT analyses. When the items were organized by difficulty, I noticed four themes among the 11 characteristics: (1) understanding myself and my students, (2) understanding myself and my students in context, (3) understanding schools and communities in context, and (4) transformation through teaching. These modules could help teachers focus meaningfully on a few related characteristics in a developmentally-appropriate manner as
opposed to being overwhelmed by considering all 11 simultaneously or focusing on transformation of through teaching before considering self and students. The characteristics are in order of difficulty and the modules are progressive, so that users would start with the first and work their way toward the fourth. The first module addresses understanding myself and my students. The first step to becoming multicultural teacher is to examine the factors that influence values, attitudes, and beliefs that influence how teachers’ experience the world and consequently understand their students’ experiences (Barns, 2006; Villegas & Lucas, 2002). The second module, understanding myself and my students in context translates those values, attitudes, and beliefs to the classroom context. In the third module, understanding schools and communities in context the context expands beyond the classroom to the school and community level. The fourth phase transformation through teaching emphasizes the how the previous characteristics can be used to modify curriculum and to prepare socio-politically conscious students who then go on to challenge inequities within the school and beyond.
Implications for Schools

The problem with multicultural education is not the lack of multicultural programs or diversity initiatives, nor is it the lack of educators who champion diversity. The problem, as identified by Gorski and Swalwell (2015), is that these programs and initiatives avoid issues of equity and focus solely on the cultural mismatch between teachers and their students. At the heart of a multicultural education curriculum are the principles of equity and social justice. As an ongoing process, multicultural teaching capacity continues beyond teacher preparation to the professional development teachers receive as inservice teacher to affect their curriculum decisions and professional development goals. Thus, the MTCS is a useful resource for both

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<thead>
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<th>Module 1: Understanding myself and my students</th>
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<tr>
<td>• Agent of Change</td>
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<td>• Student success</td>
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<tr>
<td>• Sociocultural Awareness</td>
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<tr>
<th>Module 2: Understanding myself and my students in context</th>
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</thead>
<tbody>
<tr>
<td>• Impact of culture and context</td>
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<tr>
<td>• Creating a classroom community</td>
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<tr>
<td>• Affirming students cultural assets</td>
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<th>Module 3: Understanding schools and communities in context</th>
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<tr>
<td>• Critical reflection</td>
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<tr>
<td>• Socopolitical context of schools</td>
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<tr>
<td>• Experiential knowledge of communities</td>
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<tr>
<th>Module 4: Transformation through Teaching</th>
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<tbody>
<tr>
<td>• Modifying curriculum</td>
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<tr>
<td>• Fostering sociopolitical consciousness in students</td>
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**Figure 10.** Multicultural Teacher Capacity Training Modules
school administrators and teachers who are committed to issues of equity throughout their school. Focusing on one characteristic or module at a time, teachers and administrators can use the MTCS to reflect on their level of multicultural teaching capacity. That information can be used to identify specific needs and to facilitate discussions around what it means to be multicultural, followed by differentiated support through professional development and other resources. The goal is not to be punitive but to incite reflection, awareness, and action.

**Implications for Teacher Preparation**

Cochran-Smith and her colleagues (2015) identify four stands regarding teacher preparation for diversity and equity: coursework and fieldwork, program structure, teacher diversity, and teacher educators. The MTCS can contribute to each strand. First, with regard to the first two strands: coursework and fieldwork and program structure, the instrument can guide conversations around the development of a teacher preparation program designed to prepare teachers to confront issues of equity in their classrooms and beyond. This body of literature emphasizes the courses and experiences that impact teachers’ beliefs and practices. Because many schools of education espouse an equity-focused mission, the MTCS is a useful tool for identifying relevant or missing courses and experiences. One of King and Butler’s (2015) critiques of the courses offered is that they did not address issues of equity. The characteristics and the training modules (presented in Table 16) offer a concrete model for designing a comprehensive program to prepare teachers throughout the entire preparation (Gainer & Larrotta, 2010). Fieldwork for preservice teachers involves working with a cooperating teacher in a classroom. With further work supporting this use, the MTCS may be useful for selecting cooperating teachers who are intentional about their commitment to social justice and thereby demonstrate that commitment when working with preservice teachers.
The third strand seeks to recruit a more diverse teaching population. The teaching force, comprised of predominantly White women, does not reflect the student population. Although there are increased efforts to recruit teachers of color and diversify the teaching force is important, it does not necessarily indicate mindset. The MTCS calls to attention the need to also consider knowledge, skills, and disposition and, further, has the potential to identify teacher candidates who are diverse according to their multicultural teacher capacity.

The fourth strand deals calls attention to address the knowledge, skills, and dispositions of the teacher educators who prepare future teachers. Equally important to the mission of teacher preparation programs are the teacher educators themselves. Current research is concerned with the characteristics of educators that influence the preparation of preservice teachers. Often teacher educators are tasked with preparing teachers to carry out a program’s mission of promoting equitable outcomes and experiences for their students, but are not aware of ways to do so. Thus, the MTCS may be useful to teacher educators to develop a more integrated model of preparation, providing them with a common language and by challenging them to model these practices for future teachers.

**Implications for Researchers**

Ogbu (1992) and Zirkel (2005) questioned the extent to which multicultural education has improved the experiences and outcomes of historically marginalized students. Similarly, Cochran-Smith (2003) critiqued the field’s inability to participate in current educational conversations that center around outcomes, impact, and evidence. The present study speaks to both concerns. By outlining 11 characteristics that are theorized to promote educational equity, the MTCS provides a common language and systematic means of examining multicultural education. Although there is a need for further validation, the MTCS also has the potential to
generate the research needed to stimulate and support large-scale empirical studies of multicultural teachers’ impact on student outcomes and experiences as well as the factors that facilitate multicultural development (Cochran-Smith, 2003; Ladson-Billings, 1999; Sleeter, 2012). Where other assessments fell short, the MTCS includes a theoretical framework grounded in multicultural theory and practice, a broad scope of multicultural concerns, a transformative orientation, emphasis on personal growth, and psychometric support that can be further buttressed in future studies.

**Suggestions for Future Research**

Validation is an ongoing process of construction and evaluating the intended interpretation test scores and their proposed uses (AERA, APA, & NCME, 2014). Given the intended interpretation of the scores as reflecting multicultural teaching capacity and the proposed use as facilitating professional growth, the directions of future research are aimed to support three goals: ongoing validation, justification of use, and exploring the development of multicultural teacher capacity through self-reflection and professional growth. The MTCS can be used to help the field better understand the extent to which teachers possess the characteristics that are associated with multicultural education: greater self-understanding; development of the knowledge, skills, and attitudes to function in the community, mainstream society, and across cultures; reduce the discrimination; increase access to cultural alternatives and the academic skills needed to function in a global and flat world (Banks, 2010). Current findings support the qualitative use of the tool to stimulate self-reflection, and provide tentative support for the intended inferences regarding multicultural teaching capacity. However, the quantitative findings also suggest the need for a more comprehensive model of multicultural teacher capacity that addresses the limitations presented earlier in this chapter. Thus, among the next steps of
research are the ongoing validation of the MTCS to ensure that it is, in fact, an adequate measure
of multicultural teacher capacity as demonstrated by evidence in support of the inferences from
scores as well as justification of use as a tool for self-assessment and personal growth. The
following paragraphs describe some of these next steps to ensure the psychometric adequacy of
the MTCS.

Inferences from scores yielded by the MTCS can only be trusted if there is evidence that
the characteristics adequately measure teacher’s multicultural teacher capacity. One major
limitation in this study was the presence of social desirability; thus, the next steps are designed to
address this concern. The first suggestion addresses the sample size and composition. The
snowball and convenience sample could have contributed to the selection of a biased sample of
teachers who were already familiar with multicultural education. Thus, to facilitate a more
comprehensive study of the nature of multicultural teacher capacity, subsequent studies should
use larger, more heterogeneous teacher samples. A majority of the sample was White (71%),
female (81%), at the elementary level (42%), familiar with multicultural education (as indicated
by the 72% who took a related course), and experiences (as indicated by the 43% with 11 or
more years of teaching experience). Future studies should include great heterogeneity according
to race, ethnicity, gender, and teaching level, exposure to multicultural education, and years of
experience. With a larger and more diverse sample, an analysis of differential item function
would help to explore the presence of systematic differences among the responses from various
subgroups.

Another strategy for addressing social desirability is to address the bias of self-reports by
moving to more objective strategies, such as the triangulation of data. The data can be
triangulated in two ways. One, by paring scores with other evidence-based support such as
observations and another is through respondent-provided artifacts to corroborate the responses. The triangulation of responses with evidence will help to better understand the ways in which teachers are interpreting the characteristics and examining their own dispositions, knowledge, and skills, thereby leading to a differentiation between espoused and enacted values and increasing transparency. The tool can be translated into an observation protocol to include observable indicators for each characteristic. Based on observations, researchers can mark the appropriate level. In addition to observations, scenarios can be used to score teachers. Based on responses to scenarios appropriate levels can be selected to provide a more objective assessment.

Another aspect of validation is the justification of use. The MTCS is not meant to be a stand-alone instrument; but as one element in a system for guiding professional development through educator self-assessment on each characteristic, followed by the provision of resources to help move to the subsequent level. The tool provides the foundation for an initial conversation around what it means to be a multicultural teacher at various levels and regarding multiple characteristics. A qualitative case study of teachers would allow an in-depth, and detailed examination of how the MTCS is utilized and may offer insights regarding the development of the characteristics. As additional support, the MTCS should be paired with a series of resources that guide development along the continuum for all characteristics. Many survey respondents noted the need for resources to guide their next steps. Developing and providing such resources would further support the use of the tool for professional development.

In addition to continuing validation studies, another strand of research would explore the development of multicultural teacher capacity. In order to better understand the development and maintenance of multicultural teacher characteristics, there is a need examine the experiences and factors that contribute to the development of multicultural teacher capacity. The sample in
this study reflected the national demographics of the U.S. teaching force, a majority of who are White women (Feistritzer, 2011). In much of the literature, it is assumed that teachers of color will have the characteristic that lead to successful outcomes (Munroe & Pearson, 2006). While this has been consistent with the findings in this study, further exploration is needed.

Finally, the MTCS is better at capturing moderate levels of multicultural teacher capacity and does not include items that tap into higher levels of multicultural teacher capacity. In order to better understand what multicultural looks like at the extremes, qualitative data is needed to better understand how respondents understand the items in the context of their own personal dispositions, knowledge, and skills. Considering these findings, one strand of future research should examine how teachers interpret the MTCS and then reflect on their own knowledge, skills, and practices. This would inform what changes need to be made to the instrument to ensure that it captures a broader range of trait levels. In addition to the possibility that items may need to be refined or additional items developed, there is a need to further explore the number and characteristics of the response options (levels) of the MTCS. Although there was some support for the response category structure, results indicated that there may be a need for another level between Advancing and Transformational and that the amount of multicultural teacher capacity to transition from a progressive to Advancing may not be fine-grained enough to distinguish between the two levels.

With adequate evidence of validity, the MTCS will be ready to move towards assessing the impact of multicultural education on student outcomes and experiences. Particularly, a series of regression models can examine if there are systematic differences in students test scores as a function of levels of multicultural teacher capacity. The data can help the field understand
the collective impact as well as the impact of various characteristics. It will also be important to identify other experiences and outcomes that are influenced by multicultural teacher capacity.

**Conclusion**

The clarification of what it means to be a multicultural teacher is a major contribution to the field of multicultural education. In addition, this study yielded an instrument to measure multicultural teacher capacity with a strong theoretical foundation and promising psychometric characteristics. At present, the use of the tool is perhaps best suited for stimulating self-assessment and reflection for educators, informing teacher preparation programs, and guiding professional development. The MTCS can also provide a reliable and valid measure of multicultural teaching capacity for samples of teachers that mirror the characteristics of those in the sample used in this study, although the instrument should continue to be evaluated and refined to gather further support for using the theoretically supported characteristics can measure multicultural teacher capacity. Doing so will facilitate accomplishment of the ultimate goals of improving teacher recruitment, enhancing teacher preparation and professional development, and yielding more effective strategies to promote equity of experiences and outcomes for all students.
### APPENDIX A: THEORETICAL PROPERTIES OF REVIEWED ASSESSMENTS

<table>
<thead>
<tr>
<th>Construct Description</th>
<th>Dimensions/Subscales</th>
<th>Theoretical Framework</th>
<th>Sample Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multicultural Attitudes Scale</strong> <em>(MAS: Giles &amp; Sherman, 1982)</em></td>
<td>Multicultural attitudes</td>
<td>(1) Variety of family and friends; (2) social distance; (3) Acceptance of others; (4) Acceptance by others; (5) Opinions on specific racial/ethnic groups</td>
<td>NR • How many of these 4 friends come from the same town as you? • American Indians: good-bad, foolish-smart, clean-dirty, harmful-helpful</td>
</tr>
<tr>
<td><strong>Cultural Diversity Awareness Inventory</strong> <em>(CDAI; Henry, 1986)</em></td>
<td>Attitudes, beliefs, and behavior towards young children of culturally-diverse backgrounds</td>
<td>(1) Inclination toward social action; (2) Awareness of realities; (3) Desire for insulation <em>(Fehr &amp; Agnello, 2012)</em></td>
<td>NR • I believe that there are times when racial comments should be ignored • I believe that my culture is different from the children I serve</td>
</tr>
<tr>
<td><strong>Multicultural Sensitivity Scale</strong> <em>(MSS; Jibaja-Rusth, Kingery, Holcomb, Buckner &amp; Pruitt, 1994)</em></td>
<td>Multicultural sensitivity of school health educators towards their students</td>
<td>Unidimensional</td>
<td>NR • I feel threatened by members of other ethnic groups • I prefer teaching students with whom I can identify ethnically</td>
</tr>
<tr>
<td><strong>Quick Discrimination Index</strong> <em>(QDI; Ponterotto et al., 1995)</em></td>
<td>Racial attitudes toward racial diversity and women’s equality</td>
<td>(1) Cognitive attitudes, (2) affective-interpersonal reactions, and (3) attitudes toward women</td>
<td>NR • Generally speaking, men work harder than women • I believe that reading Malcolm X would be of value</td>
</tr>
<tr>
<td><strong>Cultural and Educational Issues Survey</strong> <em>(CEIS; Pettus &amp; Allain, 1999)</em></td>
<td>Attitudes and perceptions concerning multicultural and educational issues</td>
<td>NR</td>
<td>NR • Openly gay or lesbian individuals should not be allowed to teach in public schools. • Diversity among students provides more positive aspects than negative</td>
</tr>
<tr>
<td><strong>Pluralism and Diversity Attitude Assessment</strong> <em>(PADAA; Stanley,</em></td>
<td>An ideology that gives values to cultural diversity and promotes equality for all people.</td>
<td>(1) Appreciate cultural pluralism; (2) value cultural pluralism; (3) implement cultural pluralism; (4) Uncomfortable with cultural</td>
<td>NR • Each minority has something positive to contribute to American Society • Students should feel pride in</td>
</tr>
<tr>
<td>Year</td>
<td>Intended for physical educators</td>
<td>Diversity</td>
<td>their heritage</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------</td>
<td>-----------</td>
<td>---------------</td>
</tr>
</tbody>
</table>

**Teacher Multicultural Attitude Survey (TMAS; Ponterotto, Baluch, Grieg, & Riviera, 1998)**
- **Awareness of, comfort with, and sensitivity to issues of cultural pluralism in the classroom**
  - Unidimensional
  - NR
  - • It is not the teacher’s responsibility to encourage cultural pride
  - • I find teaching culturally diverse students rewarding

**Multicultural Teaching Concerns (MTC; Marshall, 2001)**
- **Intensity of concerns about working with diverse student populations**
  - Fuller’s Concerns of Teachers
  - • Should schools be expected to cure the problems of the larger society?
  - • Will diverse students accuse me of discrimination?

**Professional and Personal Beliefs about Diversity (PPBD; Pohan & Aguilar, 2001)**
- **Acceptance or openness to a range of diversity issues/topics**
  - (1) Personal (2) Professional
  - NR
  - • In general, society should not become more accepting of gay/lesbian life-styles
  - • Teachers should group students by ability level

**Diversity-Responsive Teaching (DRT; Sobel, Taylor, & Anderson, 2003)**
- **Ability to address issues of diversity in the classroom**
  - NR
  - NR
  - • Continues to increase knowledge of equity and diversity and recognizes their effect on student achievement

**Multicultural Efficacy Scale (MES; Guyton & Wesche, 2005)**
- **Confidence to be effective in MC settings**
  - (1) Experience; (2) general knowledge; (3) efficacy; (4) instructional knowledge; (5) attitude
  - NR
  - • All cultural groups are entitled to maintain their own identity
  - • I can identify school practices that may harm diverse students

**Munroe Multicultural Attitude Scale Questionnaire (MASQUE; Munroe & Pearson, 2006)**
- **Multicultural attitudes**
  - (1) Know, (2) care, (3) act
  - Banks’ Transformative approach and Bloom’s Taxonomy
  - • I realize that racism exists
  - • I feel supportive of people’s sexual orientation

**Culturally Responsive Teaching Belief in capability to organize and execute**
- (1) Curriculum and instruction; (2) classroom management; (3) Student
  - Culturally Responsive Pedagogy and Social
  - • Identify ways that standardized tests may be
| **Self-Efficacy and Outcome Expectancy Scale** (CRTSE/OE; Siwatu, 2007) | courses of action required to produce given attainments; **Estimate** that a given behavior will lead to certain outcomes | assessment, (4) cultural enrichment | Cognitive Theory | biased towards culturally diverse students  
• Students will be successful when instruction is adapted to meet their needs |
| --- | --- | --- | --- | --- |
| **Multicultural Dispositions Index** (MDI; Thompson, 2009) | Diversity **awareness** levels | (1) Cross-cultural competence and ability to empower minority students; (2) multicultural worldview; (3) knowledge of self, and (4) professional skills and commitment | Culturally Relevant Pedagogy | • My cross-gender awareness and communication skills are sharp.  
• I am not a resistant learner who is suspicious of the goals of multicultural and diversity education. |
| **Diversity Dispositions Index** (DDI; Schulte, Edwards, & Edick, 2008) | **Dispositions** that practicing educators need to possess in order to work with students from diverse backgrounds | (1) Skills in helping students gain knowledge; (2) Beliefs and attitudes about students and teaching/learning; and (3) Connections with the community | James Rests' Ethical Behavior Model and Professional Codes of Ethic | • NR |
| **Quick-Racial and Ethical Sensitivity Test** (Quick-REST; Sirin, Rogers-Sirin, & Collins, 2010) | Ethical **sensitivity** towards issues of racial intolerance and **awareness** of acts of ethical violations | NR | Sue’s Tripart Model of Multicultural Competence | • I often promote diversity by the behaviors I exhibit  
• I make changes within the general school environment so that racial and ethnic minority students will have an equal opportunity for success |
| **Multicultural Teaching Competency Scale** (MTCS; Spanierman, 2011) | **Process** of exploring attitudes and beliefs about MC issues, **Understanding** of specific populations, and **examining** the impact of awareness on interaction with families/students. | (1) Multicultural teaching skill and (2) multicultural teaching knowledge | NR | Knowledge about my students’ ethnic, national, or cultural background would help my students with the following:  
• Peer interactions  
• Academic interactions |
| **Multicultural and Special Education Survey** (MSES; Utley, 2011) | Multicultural special education **competencies** with general and special educators. | (1) Cultural knowledge; (2) teaching strategies; (3) curriculum and materials; (4) parental communication; (5) monitoring and evaluation; (6) individualized education plan; (7) community relations | NR | Knowledge about my students’ ethnic, national, or cultural background would help my students with the following:  
• Peer interactions  
• Academic interactions |
Note. Unless otherwise noted, the reference is listed with the name of the instrument.

### APPENDIX B: PSYCHOMETRIC PROPERTIES OF REVIEWED ASSESSMENTS

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>MMY</th>
<th>VALIDITY EVIDENCE</th>
<th>RELIABILITY EVIDENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multicultural Attitudes Scale</strong> (MAS: Giles &amp; Sherman, 1982)</td>
<td>NR</td>
<td>No</td>
<td>NR</td>
<td>Subscales ranged from .39-.82</td>
</tr>
<tr>
<td><strong>Cultural Diversity Awareness</strong> (CDAI, Henry, 1986)</td>
<td>28</td>
<td>No</td>
<td>NR</td>
<td>Cronbach’s Alpha = 0.90 (Henry, 1985)</td>
</tr>
<tr>
<td><strong>Multicultural Sensitivity Scale</strong> (MSS; Jibaja-Rusth, Kingery, Holcomb, Buckner &amp; Pruitt, 1994)</td>
<td>21</td>
<td>No</td>
<td>NR</td>
<td>Cronbach’s Alpha = .90 Two week coefficient = .92</td>
</tr>
<tr>
<td><strong>Quick Discrimination Index</strong> (QDI; Ponterotto et al., 1995)</td>
<td>30</td>
<td>No</td>
<td>NR</td>
<td>Cronbach’s Alpha = .88 Subscales ranged from .55-.85 Coefficient of Variation = .13</td>
</tr>
<tr>
<td><strong>Cultural and Educational Issues Survey</strong> (CEIS; Pettus &amp; Allain, 1999)</td>
<td>63</td>
<td>No</td>
<td>NR</td>
<td>Cronbach’s Alpha= .92</td>
</tr>
<tr>
<td><strong>Pluralism and Diversity Attitude</strong></td>
<td>19</td>
<td>No</td>
<td>PCA yielded 4 factors; PCA</td>
<td>Cronbachs’ Alpha = .91 Coefficient for unknown time =</td>
</tr>
<tr>
<td>Instrument and Score</td>
<td>Total Items</td>
<td>Frequency of Use</td>
<td>Analysis Type</td>
<td>Subscales Ranged</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------</td>
<td>------------------</td>
<td>---------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Teacher Multicultural Attitude Scale (TMAS; Ponterotto, Baluch, Grieg, &amp; Riviera, 1998)</td>
<td>64</td>
<td>No</td>
<td>EFA yielded 4 factors</td>
<td>Subscales ranged from .31 to .79</td>
</tr>
<tr>
<td>Personal/Professional Beliefs (PPBAD; Pohan &amp; Aguilar, 2001)</td>
<td>40</td>
<td>No</td>
<td>NR</td>
<td>Multicultural Education Knowledge Test (r = .45); Social Desirability Scale (r = .60); Rokeach Dogmatism Scale (r = -.24)</td>
</tr>
<tr>
<td>Diversity-Responsive Teaching (DRT; Sobel, Taylor, &amp; Anderson, 2003)</td>
<td>17</td>
<td>No</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Multicultural Efficacy (MES; Guyton &amp; Wesche, 2005)</td>
<td>35</td>
<td>No</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Munroe Multicultural Attitude Scale Questionnaire (MASQUE; Munroe &amp; Pearson, 2006)</td>
<td>17</td>
<td>No</td>
<td>Yes</td>
<td>Velicer’s MAP revealed 3 factors</td>
</tr>
<tr>
<td>Self-Efficacy and Outcome Expectancy (CRTSE/OE; Siwatu, 2007)</td>
<td>40</td>
<td>No</td>
<td>NR</td>
<td>PCA yielded 1 factor for each scale</td>
</tr>
<tr>
<td>Instrument</td>
<td>Test Content</td>
<td>Response Processes</td>
<td>EFA Factors</td>
<td>Subscales</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------------</td>
<td>--------------------</td>
<td>-------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Diversity Dispositions Index</strong> (DDI; Schulte, Edwards, &amp; Edick, 2008)</td>
<td>No</td>
<td>1,2</td>
<td>EFA yielded 3 factors</td>
<td>NR</td>
</tr>
<tr>
<td><strong>Multicultural Dispositions Index</strong> (MDI; Thompson, 2009)</td>
<td>No</td>
<td>1,2</td>
<td>EFA yielded 4 factors Item-rest correlations = .52 -.61</td>
<td>NR</td>
</tr>
<tr>
<td><strong>Racial and Ethical Sensitivity</strong> (Quick-REST; Sirin, Rogers-Sirin, &amp; Collins, 2010)</td>
<td>No</td>
<td>1</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td><strong>Multicultural Teaching</strong> (MTCS; Spanierman, 2011)</td>
<td>No</td>
<td>1</td>
<td>EFA yielded 2 factors</td>
<td>TMAS (r=.51); Color-blind Racial Attitudes Scale(r=-.44); Social Dominance Orientation Scale (r=-.28)</td>
</tr>
</tbody>
</table>

**Note.** Unless otherwise noted, the reference for the information is listed with the name of the instrument.

Legend:

*NR= Not reported

Test Content: 1=Expert review, 2=Feedback from non-experts (e.g., focus group and interview), 3=Readability assessment, 4=Quantitative analysis of item format

Response Processes: Evidence provided by cognitive interview (focus group and/or individual)
APPENDIX C: INVITATION E-MAIL

Subject Line: Expert Review: Multicultural Teacher Capacity Scale

Hello X,

My name is Jessie Montana Cain and I am a PhD candidate at UNC-Chapel Hill. I am currently working on my dissertation project: the development and initial validation of the Multicultural Teacher Capacity Scale (MTCS). The MTCS is a self-assessment tool that will be designed to assess the extent to which teachers possess the knowledge, skills, and dispositions to promote educational equity.

In this project, I aim to move away from assessments that are used to determine the effectiveness of an intervention. Instead, the MTCS will place the focus on personal development in a professional context. The MTCS builds on multicultural education as a reform movement and extends to culturally relevant and culturally responsive pedagogies to identify characteristics of multicultural teachers. I believe that this tool will help focus conversations around what it means to be multicultural as opposed to do multicultural.

Although a comprehensive literature review will provide the foundation for the tool, the relevance and content are further enhanced with feedback from experts who are familiar with the field of multicultural education and teacher preparation. I would like to invite you to participate as an expert. Experts are invited to participate in any (or all) of the following ways (tentative dates):

- Review the dimensions of the MTCS for relevance and representativeness (October 2014)
- Review the first draft of the MTCS (November 2014)
- Share instrument for pilot testing to P-12 inservice teachers in the United States (e.g., former students, students in Master’s courses, alumni from your program, friends, etc.) for the pilot test in (January 2014)

At the conclusion of the study, you will receive a copy of the MTCS along with the findings and technical manual. If you have other questions please contact me via e-mail or telephone 919-896-3983.

Thank you for your consideration,
Jessie

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APPENDIX D: INFORMED CONSENT

Consent to Participate in a Research Study

Title of Study: Clarifying Multicultural: The Development and Initial Validation of the Multicultural Teacher Capacity Scale

Principal Investigator: Jessie Montana Cain
Principal Investigator Department: School of Education
Principal Investigator Phone number: (919) 896-3983
Principal Investigator Email Address: jcain@live.unc.edu

Faculty Advisor: Gregory J. Cizek
Faculty Advisor Department: School of Education
Faculty Advisor Phone Number: (919) 843-7876
Faculty Advisor Email Address: cizek@unc.edu

What are some general things you should know about research studies?
You are being asked to take part in a research study. To join the study is voluntary. You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study. Upon request, a copy of the signed copy of the consent form will be faxed to participants.

Should you have any questions, please contact the researcher listed above.

What is the purpose of this study?
The purpose of this research study is to develop and initially validate a newly developed assessment of multicultural teacher capacity.

The principal investigator is a doctoral candidate at the University of North Carolina at Chapel Hill School of Education. This study meets the requirements for the dissertation project to fulfill the PhD degree in Education. Results may also be used to inform future research.

You are being asked to participate as an expert because of your scholarship in the field of multicultural education as evident through publications, profession and/or courses taught. Or, you are being asked to participate because you were a P-12 teacher in the United States.
Are there any reasons you should not be in this study?
Invited experts should not be in this study if you are not familiar with multicultural education, or related topics. Other participants should not participate if they are not former teachers or if they are former teachers who never taught in the United States.

How long will your part in this study last?
The entire study will take place over the course of eight months. However, participation is anticipated to total 5 hours over the course of three months for experts. Former teachers will participate for about 1 hour on one day.

What will happen if you take part in the study?
You will receive drafts of the instrument along with instructions for providing feedback.

What are the possible benefits from being in this study?
Research is designed to benefit society by gaining new knowledge. You will not benefit personally from being in this research study. However, you will receive a final copy of the instrument, findings and technical report for use.

What are the possible risks or discomforts involved from being in this study?
It is anticipated that there is minimal risk of you experiencing discomfort from study involvement. However, should you experience discomfort, you may refuse to answer any question, or end at any time. If there are associated risks that are not mentioned above report them to the researcher.

How will your privacy be protected?
Participant’s names will be removed from feedback forms and stored in a password-protected document, only accessible by the researcher. Signed consent forms will be stored in a locked file cabinet in the researcher’s home office.

What if you want to stop before your part in the study is complete?
You can withdraw from this study at any time, without penalty. The researcher also has the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

Will you receive anything for being in this study?
You will not receive anything for being in this study.

Will it cost you anything to be in this study?
It will not cost you anything to be in this study.

What if you have questions about this study?
You have the right to ask, and have answered, any questions you may have about this research. If you have questions about the study, complaints, or concerns you should contact the researcher listed on the first page of this form.
What if you have questions about your rights as a research participant?
This study has been reviewed by the dissertation committee. If you have questions about this research study or your participation, please contact the principal investigator (contact information above).

Participant’s Agreement:
I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

____________________________________________________
Signature of Research Participant                      Date

____________________________________________________
Printed Name of Research Participant
APPENDIX E: INITIAL CHARACTERISTICS FEEDBACK FORM

Describe your experience with and knowledge of multicultural education: (check all that apply)

[ ] I teach (or have taught) courses related multicultural education (e.g., culturally relevant, culturally responsive, etc.)
[ ] My research is related to multicultural education (e.g., culturally relevant, culturally responsive, etc.)
[ ] I have taken courses related multicultural education (e.g., culturally relevant, culturally responsive, etc.)
[ ] Other: ____________________________________________

Multicultural Teacher Capacity Scale:

A self-assessment of the extent to which teachers embody the dispositions, knowledge, and skills to promote educational equity through the intentional and respectful use of culture to impact student experiences and outcomes.

Instructions: After reading each characteristic, rate the extent to which you feel it is relevant to being a multicultural teacher.
Please include additional feedback, commentary, and/or suggestion.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
<th>Relevance Rating</th>
<th>Additional Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DISPOSITIONS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socioculturally Conscious</strong></td>
<td>Multicultural teachers have to first see themselves as cultural beings in order to recognize and appreciate the culture of their students. This realization initiates the process of perspective taking that allows teachers recognize that there are multiple perspectives and that theirs is only a single story.</td>
<td>0 1 2 3</td>
<td></td>
</tr>
<tr>
<td><strong>Affirm students culture l while acknowledging the need to acquire mainstream culture</strong></td>
<td>In contrast to the deficit based thinking, multicultural teachers see students and their community’s culture as a classroom resource. Students are seen as capable and varied</td>
<td>0 1 2 3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perspectives are respected.</th>
<th>Believe that all students are capable of success</th>
<th>Multicultural teachers expect their students to excel and their circumstances are not used to explain lack of achievement.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Feel accountable for the long-term outcomes of students</td>
<td>Multicultural teachers possess a commitment that extends beyond the classroom. A teacher who is accountable for the long-term outcomes of students sees the larger context of their role.</td>
</tr>
<tr>
<td></td>
<td>See themselves as agents of change</td>
<td>Multicultural teachers feel both responsible for and capable of bringing about educational change that will lead to equitable outcomes and experiences for students.</td>
</tr>
<tr>
<td>KNOWLEDGE</td>
<td>Aware of and understand the sociopolitical context of schools (e.g., community events, school board policies, healthcare, and unemployment)</td>
<td>Multicultural teachers need to be aware of the sociopolitical context of schools and society. This knowledge drives classroom practice and is used to facilitate the development of socio-politically aware students.</td>
</tr>
<tr>
<td></td>
<td>Understand the role and impact of culture on students’ experiences and outcomes</td>
<td>In order to effectively link the principles of learning and culture, multicultural teachers have to know and believe that culture impacts students experiences and outcomes</td>
</tr>
<tr>
<td></td>
<td>Aware of and understand the school and students’ communities</td>
<td>Multicultural teachers see themselves as a part of the community in which they teach. They also make an effort to identify and utilize the community and student resources to contextualize their classrooms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<td>4</td>
<td>5</td>
<td></td>
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<tr>
<td>SKILLS</td>
<td><strong>Utilize diverse resources that reflect their students</strong></td>
<td>Multicultural teachers are aware of resources and materials to guide the modification of curriculum</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Create a classroom community that embraces students</strong></td>
<td>Multicultural teachers shift power in order to create a student-centered classroom where students are actively engaged in the process of learning and establishing the ethos of the classroom.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Engage in critical reflection to guide practice</strong></td>
<td>Beyond autobiographies, critical reflection requires honest self-reflection and critique of their own thoughts and behaviors in order to help teachers recognize conscious and subconscious biases to increase awareness of interactions with students, their families and their community.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Foster the sociopolitical consciousness of students</strong></td>
<td>With the goal of long-term change, teachers have to break the cycle by developing students who are aware of the sociopolitical context of schools and society and are prepared to take action.</td>
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<tr>
<td></td>
<td><strong>Analyze and modify curriculum in response to the academic, social, affective, and cultural needs of students</strong></td>
<td>Multicultural teachers convert knowledge into curricula and instructional strategies; determine the strength and weakness of curriculum, strategies, and materials. They aim to expose students to alternatives while still preparing them to meet mainstream standards.</td>
<td>0</td>
</tr>
</tbody>
</table>

**Overall Feedback**
The knowledge, skills, and dispositions, are intended to represent the characteristics of a multicultural educator. What is your perception of the characteristics? Are they representative of multicultural teaching? If not, what is missing?

Following the identification of dimensions, construction of the full *Multicultural Teacher Capacity Scale* (MTCS) will begin; each dimension will be expanded across a series of progressive levels. I invite you to continue participation in the development and validation process, in any of the following ways. Please select all that apply:

[ ] I am interested in providing feedback on an initial draft of the MTCS**

[ ] I am interested in helping to distribute the MTCS to inservice teachers for pilot administration (January 2015)**

[ ] I would like a copy of the MTCS and technical report following development and initial validation (May 2015)**

[ ] Other: _____________________________________________________________________________
APPENDIX F: FOCUS GROUP PROTOCOL

Survey Links:
- [Click here to take a survey-A](#)
- [Click here to take a survey-B](#)

<table>
<thead>
<tr>
<th>Question</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Of the two surveys, which format did you prefer and why?</td>
<td></td>
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<tr>
<td>Introduction Page</td>
<td></td>
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<tr>
<td>Were the instructions clear? As you read, was there information that was needed? Or, unnecessary to include?</td>
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<tr>
<td>Page 1: Dispositions</td>
<td></td>
</tr>
<tr>
<td>Were you able to read through the questions with ease? If not, which questions were difficult? Were there any words that needed to be explained?</td>
<td></td>
</tr>
<tr>
<td>Page 2: Knowledge</td>
<td></td>
</tr>
<tr>
<td>Were you able to read through the questions with ease? If not, which questions were difficult? Were there any words that needed to be explained?</td>
<td></td>
</tr>
<tr>
<td>Page 3: Skills</td>
<td></td>
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<tr>
<td>Were you able to read through the questions with ease? If not, which questions were difficult? Were there any words that needed to be explained?</td>
<td></td>
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<tr>
<td>Page 4: Supplemental Questions</td>
<td></td>
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<tr>
<td>What was your reaction to this page?</td>
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<tr>
<td>Page 5: Demographic Items</td>
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</tr>
<tr>
<td>Were you able to read through the questions with ease? If not, which questions were difficult? Were there any words that needed to be explained?</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
</tr>
<tr>
<td>As a teacher, what are your thoughts on the instrument? How did you feel while taking the survey? After?</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td></td>
</tr>
<tr>
<td>How, if at all, do you see this tool being used?</td>
<td></td>
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<tr>
<td>Overall</td>
<td></td>
</tr>
<tr>
<td>Do you have any other feedback that might</td>
<td></td>
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</tbody>
</table>
Former Teacher Seeks Help from Current Teachers

“Hi! I am a current PhD candidate and a former K-12 teacher. Though familiar with multicultural education, it wasn’t until graduate school that I learned about it as an educational reform movement and the intended impact on students. For my dissertation, I developed a self-reflection tool to clarify what it means to be a multicultural teacher. The goal is NOT to evaluate teachers or to judge effectiveness. Instead, it is to better understand the extent to which teachers see themselves as multicultural.”

Would you (or a friend) like to participate in this study?

Who: Any PK-12 Teacher in the United States
What: Complete a 20 min survey
When: before February 27th
How: Copy the link below or email me

Link: https://unc.az1.qualtrics.com/SE/?SID=SV_6LSVkES1swOG8fP
Complete before February 20th to win 1 of 5 $20 Amazon gift cards

Jessie Montana Cain | UNC-Chapel Hill | IRB 14-2404 | jcain@live.unc.edu
*CONTACT ME IF YOU WOULD LIKE A COPY OF THE TOOL
APPENDIX H: MARLOWE-CROWNE (M-C FORM C; REYNOLDS, 1982)

Directions: Please indicate whether each statement below is true for you or false for you.

1. It is sometimes hard for me to go on with my work if I am not encouraged.
2. I sometimes feel resentful when I don’t get my way.
3. On a few occasions, I have given up doing something because I thought too little of my ability.
4. There have been times when I felt like rebelling against people in authority even though I knew they were right.
5. No matter who I'm talking to, I'm always a good listener.
6. There have been occasions when I took advantage of someone.
7. I’m always willing to admit it when I make a mistake.
8. I sometimes try to get even rather than forgive and forget.
9. I am always courteous, even to people who are disagreeable.
10. I have never been irked when people expressed ideas very different from my own.
11. There have been times when I was quite jealous of the good fortune of others.
12. I am sometimes irritated by people who ask favors of me.
13. I have never deliberately said something that hurt someone’s feelings.
APPENDIX I: SURVEY

3/3/2015
Qualtrics Survey Software

Default Question Block

Clarifying Multicultural: The Multicultural Teacher Capacity Teacher Scale
(IRB Study Number: 14-2404)

Purpose
The aim of this survey is to better understand the extent to which teachers see themselves as multicultural, according to the characteristics included. The purpose of this research study is to develop and initially validate a newly developed self-reflection tool, the Multicultural Teacher Capacity Scale. The principal investigator is a doctoral candidate at the University of North Carolina at Chapel Hill in the School of Education. This study meets the requirements for the dissertation project to fulfill the PhD degree in Education.

You are being asked to participate because you are a currently practicing PK-12 teacher in the United States, and the primary audience for this newly developed tool. Results may be used to inform future research. **Your responses will NOT be traced back to you.** Responses will be analyzed and reported in summary (not individual) form only.

Directions
The survey will take approximately **20 minutes** to complete. You will be asked to reflect on your knowledge, skills, and dispositions as teacher. The survey also includes some personal and professional demographic information regarding your years of teaching experience, teacher preparation, and state where you reside for example. This information will help me to better understand the participants in the study.

The survey includes 5 sections:
- Dispositions with 4 questions
- Knowledge with 3 questions
- Skills with 4 questions
- Supplemental with 13 questions
- Demographic with 11 questions

Once all responses have been recorded, the data will be used to better understand the performance of the newly developed instrument, the Multicultural Teacher Capacity Scale.

Benefits
**One in 5 teachers who respond by February 20th will win a $20 Amazon gift card.** All will contribute to general knowledge regarding multicultural teaching.

Risks
Minimal risk of experiencing discomfort from study involvement is an. However, should you experience discomfort, you can skip that question or withdraw from the study altogether without penalty. Participation is voluntary.

Confidentiality
Your responses will be kept completely confidential. Your IP address will not be traced when you respond to survey. Contact information will be kept separate from survey data in a password-protected file and replaced with a random numerical code. One year after the study, contact information will be deleted.

Contact Information
If you have any questions, please contact the Principal Investigator, Jessie Montana Cain at jcain@live.unc.edu. All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have any questions or concerns regarding your rights you may contact anonymously, if you'd like, the University of North Carolina's Institutional Review Board at 919-966-3113 or email at IRB_subjects@unc.edu.

https://unc.az1.qualtrics.com/WRApiControlPanel/Ajax.php?action=GetSurveyPrintPreview&Ti=1WcRzm605yWspRf1MICfJW1
By beginning the survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time without penalty.

Thank you in advance for your time!

Block 4

PAGE 1 of 5: DISPOSITIONS

Select the response that best describes you.

*Please note that ALL descriptors must be met in order to move to the next category.

As you move from left to right, the items progress through the following categories:
NASCENT, EMERGING, PROGRESSING, ADVANCING, and TRANSFORMATIONAL

CHARACTERISTIC 1: SOCI CULTURALLY AWARE

*Culture: values, thoughts, actions, experiences and beliefs

*Factors that influence identity: race, ethnicity, social class, religion, sexual orientation, language, geographic location, etc.

- I am aware of my identity and experiences in relation to others and can articulate ways in which I have been privileged or marginalized based on my identification with those factors.
- AND
- I examine how my identity and experiences shape my perspective and recognize that my perspective is neither universal or "right," but cultural and contextual.
- I constantly challenge myself to be aware of and to understand situations from multiple perspectives and points of view (e.g., definitions of parent involvement).
- I recognize that the United States is a stratified society and that some experiences and identities are valued more and therefore privileged over others.
- AND
- I have not yet examined the factors that influence my identity. I do not yet understand how my culture affects my experience in the world.
- AND
- I understand how my culture is deeply influenced by my race, ethnicity, social class, religion, sexual orientation, language, etc., and therefore not neutral but instead are influenced by my identity.

NASCENT

EMERGING

PROGRESSING

ADVANCING

TRANSFORMATIONAL

CHARACTERISTIC 2: AFFIRM STUDENTS CULTURAL ASSETS

*Cultural capital: knowledge, skills, and talents that students bring to the classroom

- I explicitly discuss dominant and marginalized capital so that my students understand how to navigate inequitable systems and maintain their own cultural capital.
- While I understand that my students have cultural capital, I also understand that all cultural capital is not valued equally in society.
- I understand that there is a dominant cultural capital that my students are expected to acquire in order to navigate society that may differ from their own cultural capital.
- I do not yet understand that all students have cultural capital.

https://unc.az1.qualtrics.com/W/RQualtricsControlPanel/Ajax.php?action=GetSurveyPrintPreview&LT=1WcR6mBx5yVwFZpRMI0CFW1
that all students have cultural capital that is valuable in the classroom. 

AND/OR

I do not yet seek ways to identify the cultural capital that all of my students bring.

NASCENT

EMERGING

PROGRESSING

ADVANCING

TRANSFORMATIONAL

Characteristic 3: Committed to Students' Success

Circumstances: SES, language ability, exceptionality, etc.

Traditional societal demands: high school completion, college enrollment, pass standardized exams, etc.

I care about my students, but do not yet believe that I have the tools to help them all be successful.

I do not yet understand student failure beyond their circumstances (i.e., RFS, language ability, exceptionality, etc.).

AND/OR

I define success more broadly than performance on standardized tests.

NASCENT

EMERGING

PROGRESSING

ADVANCING

TRANSFORMATIONAL

Characteristic 4: Agent of Change

Multicultural terms: culture, equity, equality, oppression, prejudice, privilege, social justice, power, etc.

Interpersonal discrimination: subtle and blatant derogatory comments and/or actions

Institutional discrimination: policies and practices that lead to inequitable experiences and outcomes for students such as English only policies and discipline protocols that target certain groups of students

I apply and recognize these terms within the school and societal context.

I understand terms related to multicultural education at the basic level and am able to apply them in context.

NASCENT

EMERGING

PROGRESSING

ADVANCING

TRANSFORMATIONAL

PAGE 2 of 5: KNOWLEDGE
Select the response that best describes you.
*Please note that ALL descriptors must be met in order to move to the next category.

As you move from left to right, the items progress through the following categories:
NASCENT, EMERGING, PROGRESSING, ADVANCING, and TRANFORMATIONAL

CHARACTERISTIC 5: UNDERSTAND THE SOCIOPOLITICAL CONTEXT OF SCHOOLS
*Educational policies: professional contract, legal rights of students, IEP process, etc.

I consider whose voices are dominant and whose voices are marginalized in mainstream media.

I actively participate in decision-making at a school, community, and/or national level (i.e., school board, hiring committee, department chair, etc.) to advocate on behalf of my students and/or their communities.

I am not yet familiar with current educational policies that impact my profession and the students in my classroom.

I involve my students, colleagues, and/or administrators in taking action.

NASCENT  EMERGING  PROGRESSING  ADVANCING  TRANFORMATIONAL

CHARACTERISTIC 6: UNDERSTAND THE IMPACT OF CONTEXT AND CULTURE ON STUDENTS
*Various groups: related to race, ethnicity, gender, SES, sexual orientation, religion, etc.
*Underlying factors: motivation, impact, short-term consequences, long-term consequences, stakeholders
*Identity: race, ethnicity, gender, socio-economic status, sexual orientation, religion, etc.

I critically analyze issues related to identity and recognize how they shape the learning experience and outcomes for my students.

I challenge the negative impact these factors have on my students' outcomes and experiences.

I am not yet aware of the histories, struggles, and accomplishments of various groups beyond dates and facts.

I help my students understand the ways that some cultural factors and groups are privileged or marginalized in schools and involve them in opportunities to respond.

NASCENT  EMERGING  PROGRESSING  ADVANCING  TRANFORMATIONAL

https://sinc.az1.qualtrics.com/WRAQualtricsControlPanelAJAX.php?action=GetSurveyPrintPreview&J=1WcR3m86sYqHjspRMI2cFW1
CHARACTERISTIC 7: DEMONSTRATE EXPERIENTIAL KNOWLEDGE OF SCHOOL AND STUDENTS’ COMMUNITIES

I do not yet believe that it is important to experience my school and/or students’ communities. I believe it is important to experience my school and/or students’ communities. AND I do not yet see the students’ and school’s communities as a classroom resource. I see the students’ and school’s communities as a classroom resource. AND I do not yet seek opportunities to learn about resources within the community. I intentionally seek opportunities to learn about resources within the community. AND I do not critically reflect on my experiences and interactions within the communities to challenge assumptions. I critically reflect on my experiences and interactions within the communities to challenge assumptions. AND I do not seek ways to connect the community to my classroom and my classroom to the community. I seek ways to connect the community to my classroom and my classroom to the community. AND I do not actively involve in the community. I am actively involved in the community. AND

NASCENT  EMERGING  PROGRESSING  ADVANCING  TRANSFORMATIONAL

PAGE 3 of 5: SKILLS

Select the response that best describes you.

*Please note that ALL descriptors must be met in order to move to the next category.*

As you move from left to right, the items progress through the following categories: NASCENT, EMERGING, PROGRESSING, ADVANCING, and TRANSFORMATIONAL

CHARACTERISTIC 8: CREATE A CLASSROOM COMMUNITY THAT EMBRACES STUDENTS

I do not yet utilize student input/voice to guide classroom management, engagement, and curriculum. I utilize student input/voice to guide classroom management, engagement, and curriculum. AND/OR I do not aim to create a classroom where students feel responsible for each other. I aim to create a classroom where students feel responsible for each other. AND I do not seek student input/voice regarding classroom management, engagement, and/or curriculum. I seek student input/voice regarding classroom management, engagement, and/or curriculum. AND I do not reflect on how student voices are affirmed and respected within my classroom. I reflect on how student voices are affirmed and respected within my classroom. AND

NASCENT  EMERGING  PROGRESSING  ADVANCING  TRANSFORMATIONAL

My classroom is student-centered as demonstrated through their active role in developing classroom management, engagement, and curriculum. AND

CHARACTERISTIC 9: ENGAGE IN CRITICAL REFLECTION TO GUIDE PRACTICE

I do not yet understand how my values, attitudes, assumptions, and beliefs are transmitted through teaching is not neutral. I understand that my values, attitudes, assumptions, and beliefs are transmitted through teaching is not neutral. I seek to better understand the impact of (beyond professional requirements) I can explain the rationale, (beyond professional requirements), objectives, and sociopolitical

what and how I teach. AND I am not yet aware that the choices in what and how I teach can lead to inequitable experiences and outcomes for my students. AND I do not yet understand and can distinguish deficit-based perspectives from asset-based perspectives.

my students’ school-related experiences and outcomes. AND I am aware that the choices in what and how I teach can lead to inequitable experiences and outcomes for my students. AND I understand and can distinguish deficit-based perspectives and asset-based perspectives.

educational and curricular choices. AND I constantly reflect on my pedagogical and curricular choices to uncover implicit and explicit bias. AND I can identify deficit-and asset-based thinking in my own pedagogical and curricular choices.

explanations of my pedagogical and curricular choices. AND I constantly seek student feedback regarding equitable experiences and outcomes in my classroom. AND I change my pedagogy and curriculum based on my own critical reflections and/or students’ input.

CHARACTERISTIC 10: FOSTER THE SOCIOPOLITICAL CONSCIOUSNESS OF STUDENTS

I do not yet provide opportunities for my students to discuss issues of equity that impact them, their community and/or society.

I provide teacher-directed opportunities for my students to discuss issues of equity that impact them, their community, and/or society.

I facilitate the engagement of my students in action-oriented projects related to issues of equity that impact them, their community, or society. AND My students can communicate how issues of equity impact them and their community.

My students develop and lead action-oriented projects related to issues that they identify. AND My students demonstrate an understanding of issues of equity related to them, their community and/or society.

NASCENT EMERGING PROGRESSING ADVANCING TRANSFORMATIONAL

CHARACTERISTIC 11: MODIFY CURRICULUM AND PEDAGOGY TO CONFRONT ISSUES OF EQUITY

I seek opportunities in my curriculum to teach through an equity lens where students engage in content-aligned opportunities to examine issues of equity. AND I consciously select curricular resources that challenge issues of inequity and include voices of perspectives that are marginalized in curriculum.

I analyze my curriculum to ensure that it meets content standards, includes varied perspectives, and opportunities for my students to become critical consumers of knowledge. AND I model critical analysis of curriculum and text with students through a discussion of whom and what is privileged in curriculum.

Based on my analysis, I modify (or design) curriculum that meets content standards, includes varied perspectives, and provides opportunities for my students to become critical consumers of knowledge. AND My students play an active role in curricular decision-making to ensure that the curriculum is relevant and reflects their realities.

NASCENT EMERGING PROGRESSING ADVANCING TRANSFORMATIONAL

Block 3


171
PAGE 4 of 5: SUPPLEMENTAL QUESTIONS

Please indicate whether each statement below is true or false for you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is sometimes hard for me to go on with my work if I am not encouraged</td>
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<td>There have been times when I felt like rebelling against people in authority even though I knew they were right</td>
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<td>There have been occasions when I took advantage of someone</td>
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<td>I am sometimes irritated by people who ask favors of me</td>
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<tr>
<td>I have never deliberately said something that hurt someone’s feelings</td>
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</tbody>
</table>

Block 2

PAGE 5 OF 5: DEMOGRAPHIC ITEMS

With which gender/s do you most identify?

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Both</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

With which race/ethnicity do you most identify? (Select all that apply)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>American Indian or Native American</th>
<th>Asian</th>
<th>Black or African American</th>
<th>Hispanic or Latino/a</th>
<th>Native Hawaiian or Pacific Islander</th>
<th>White</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>
In which range does your age fall?

- 21-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51 or above

In which state do you reside? (e.g., NC, SC, and TX)

Which best describes your teacher preparation?

- Traditional Preparation (i.e., at a public or private institution)
- Teach for America
- Lateral or Alternative Entry

Which is the highest degree that you have obtained?

- Bachelors
- Masters, if area below
- Doctorate, if area below

Prior to this current academic year, how many years of teaching (not including student teaching) do you have?

- N/A I am a preservice teacher
- None; this is my first year
- 1-3
- 4-5
- 6-10
- 11+

Which best describes your current primary teaching assignment?

- Elementary
- Middle School or Junior High School
- High School
- I am not currently teaching

How many years have you been at your current school?

- Less than 1
- 1-3
- 4-5
- 6-10
- 11+
Which best describes the subject area that you currently teach? (select all that apply)

<table>
<thead>
<tr>
<th>English Language Arts</th>
<th>History/Social Studies</th>
<th>Math</th>
<th>Science</th>
<th>World Language</th>
<th>ESL</th>
<th>Special Education</th>
<th>I teach elementary</th>
<th>Other: Please list</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please select your level of agreement with the statements listed below in describing the diversity at the school where you currently teach (or student teach for preservice teachers)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree</th>
<th>Agree</th>
<th>Unknown or Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>My school is predominantly African-American/Black</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My school is predominantly Hispanic/Latino</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My school is predominantly White</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My school is racially/ethnically diverse</td>
<td></td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>My school is culturally and linguistically diverse</td>
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<td>I teach at a Title I school</td>
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<tr>
<td>In my classroom(s), I have students whose native language is NOT English</td>
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<tr>
<td>A majority of my students receive free or reduced lunch</td>
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<tr>
<td>In my classroom(s), I have students who were born outside the United States</td>
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<td>☐</td>
</tr>
<tr>
<td>During my professional preparation, I took courses related to social justice, multicultural education, and/or diversity</td>
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<td>☐</td>
<td>☐</td>
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</tbody>
</table>

In order to maintain anonymity while linking responses, please create a unique identifier by completing all three items:

☐ First letter of the month that you were born
☐ First letter of the city where you were born
☐ 4 digit birth year (e.g., 1975)

Enter your email address below to participate in the raffle for one of the 5 $20 Amazon gift cards. Winners will be notified on March 8th, 2015 and gift cards will be sent via email.

If you have any additional feedback or comments about the survey and/or your experiences, please enter it below.

Block 4
APPENDIX J: THE MULTICULTURAL TEACHER CAPACITY SCALE

**Background:** Although multicultural is a common term used in education, it is often used in inconsistent and superficial ways. In this context, multicultural education refers to a school-based reform movement and a multicultural teacher is one who has the knowledge, skills, and dispositions to promote educational equity in their classrooms, schools, and ultimately society. Acknowledging that teachers are not simply multicultural or not, multicultural teacher capacity describes the extent to which teachers feel that they are multicultural.

**Description:** The Multicultural Teacher Capacity Scale (MTCS) is a self-assessment tool designed to capture the extent to which teachers feel that they are multicultural as outlined by the included characteristics. Teachers reflect on the 11 multicultural characteristics as they are described along a continuum of levels. The MTCS is designed for formative use to better understand where teachers fall on the continuum and to then seek ways to promote growth. As depicted in the model below, multicultural teacher capacity is organized into three domains: dispositions, knowledge, and skills. Dispositions are the values, attitudes, and beliefs that shape how teachers interpret knowledge and apply skills. The next layer is knowledge, which is the information that is used to inform the skills. Skills describe teaching practices and what teachers do inside and outside of the classroom. Domains are the organizing categories and within each is a set of characteristics. Each characteristic is described along a continuum of five levels: nascent, emerging, progressing, advancing, and transformational. The goal is for everyone to find a place on the continuum. At the nascent level, teachers have not yet acquired the disposition, knowledge, or skill. At the emerging level, the teachers are developing an awareness, which then becomes acknowledgement at the progressing level. Social action begins at the advancing level and is intentional and sustained at the transformational level. The ultimate goal is for teachers to be intentionally engaged in social action that leads to long-lasting changes in their classrooms and beyond. By reflecting on their multicultural characteristics, teachers develop an awareness of their current level and the subsequent level present areas to work toward. This tool has implications for teacher education programs, teacher educators, teachers, and administrators who are committed to educational equity.

**Instructions:** To identify their respective levels, teachers review each characteristic and reflect on the descriptors beginning with nascent and continuing to the subsequent level until they reach a point where they do not meet the criteria listed. Levels are cumulative. As such, each descriptor under the levels must be met in order to progress to the subsequent level. It can be overwhelming to focus on 11 characteristics, therefore after reflecting on each characteristic emphasis should be placed on 1-3 at a time.
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Nascent</th>
<th>Emerging</th>
<th>Progressing</th>
<th>Advancing</th>
<th>Transformational</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Are Socioculturally Aware</td>
<td>I have not yet examined factors such as my race, ethnicity, social class, religion, sexual orientation, language, geographic location, etc.</td>
<td>I examine how factors such as my race, ethnicity, social class, religion, sexual orientation, language, geographic location, etc. influence how I experience the world.</td>
<td>I recognize that the United States is a stratified society and that some experiences and identities are valued more and therefore privileged over others.</td>
<td>I am aware of my identity and experiences in relation to others and can articulate ways in which I have been privileged or marginalized based on my identification with those factors.</td>
<td>I critically examine my thoughts, beliefs, and actions to identify biases and limitations.</td>
</tr>
<tr>
<td><em>Sociopolitical refers to the laws, regulations, policies, practices, traditions, ideologies, and beliefs</em></td>
<td>I do not yet understand how my culture (or values, thoughts, actions, experiences and beliefs) are deeply influenced by factors such as my race, ethnicity, social class, religion, sexual orientation, language, etc.</td>
<td>I understand how my culture (or values, traditions, thoughts, actions, experiences and beliefs) are deeply influenced by factors such as my race, ethnicity, social class, religion, sexual orientation, language, etc.</td>
<td>I recognize that my values, thoughts, beliefs, and actions are not neutral but instead are influenced by the social and political context.</td>
<td>I examine how my identity and experiences shape my perspective and recognize that my perspective (i.e., how I understand situations, how I define good, etc.) is neither universal nor “right,” but cultural and contextual.</td>
<td>I constantly challenge myself to be aware of and to understand situations from multiple perspectives and points of view (e.g., definitions of parent involvement).</td>
</tr>
<tr>
<td>2. Affirm students’ cultural assets</td>
<td>I do not yet understand that all students have cultural capital (i.e., knowledge, skills, and talents) that is valuable in the classroom.</td>
<td>I understand that all students have cultural capital (i.e., knowledge, skills, and talents) that is valuable in the classroom.</td>
<td>I understand that there is a dominant cultural capital (i.e., knowledge, skills, and talents) that my students are expected to acquire in order to navigate society that may differ from their own.</td>
<td>While I understand that my students have cultural capital (i.e., knowledge, skills, and talents), I also understand that all cultural capital is not valued equally in society.</td>
<td>I explicitly discuss dominant and marginalized capital so that my students understand how to navigate inequitable systems and maintain their own cultural capital.</td>
</tr>
<tr>
<td>Multicultural teachers recognize students’ cultural capital and the need to access dominant cultural capital to navigate inequitable systems.</td>
<td>I do not yet seek ways to identify the cultural capital that all of my students bring.</td>
<td>I intentionally seek ways to identify the cultural capital (i.e., knowledge, skills, and talents) that all of my students bring.</td>
<td>I create opportunities for all students to demonstrate the knowledge, skills, and talents in the classroom, school, or community.</td>
<td>I am able to identify the capital (i.e., knowledge, skills, and talents) needed to navigate society (e.g., curriculum standards, Standard American English, computer literacy, etc.).</td>
<td>I intentionally provide opportunities for students to demonstrate their cultural capital through content-aligned assignments and assessments.</td>
</tr>
<tr>
<td>3. Committed to students’ success</td>
<td>I care about my students, but do not yet believe that I have the tools to help them all be successful.</td>
<td>I care about my students and believe that I have the tools to help them all be successful.</td>
<td>I believe that it is my responsibility to ensure that all of my students are successful in my classroom.</td>
<td>I see my role as equipping and empowering my students for long-term success beyond my classroom.</td>
<td>I communicate through words and actions that students can be successful in spite of their circumstances.</td>
</tr>
<tr>
<td>Multicultural teachers have high expectations of students because they see them as capable learners.</td>
<td>I do not yet understand student failure beyond their circumstances (i.e., SES, language ability, exceptionality, etc.).</td>
<td>I see my students as capable of success and do believe that their circumstances (i.e., SES, language ability, exceptionality, etc.) determine their failure.</td>
<td>I recognize that some students are dependent on the school in order to meet traditional societal demands (i.e., high school completion) so I strive to help them to help them navigate equitable systems.</td>
<td>I examine the factors (individual, institutional, and structural) that are in place that create failure for some students (e.g., standardized testing, school funding, school policies, tracking, etc.).</td>
<td>I actively challenge factors that are in place that create failure for some students.</td>
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<tr>
<td>I do not yet define success more broadly than performance on standardized tests.</td>
<td>I define success more broadly than performance on standardized test.</td>
<td>I communicate to my students the various (and may be competing) definitions of success.</td>
<td>I provide opportunities for my students to demonstrate success in a variety of ways, while also helping them meet mainstream markers of success.</td>
<td>I demonstrate my high expectations for students by employing strategies to ensure that all have access to a rigorous curriculum.</td>
<td>I ensure that my students believe that they are capable of success.</td>
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<tr>
<td>4. Agents of change</td>
<td>I do not yet understand the terms related to multicultural education at the basic level (e.g., culture, equity, equality, oppression, prejudice, privilege, ideology, socialization social justice, power, etc.).</td>
<td>I understand terms related to multicultural education at the basic level and am able to apply them in context (e.g., culture, equity, equality, oppression, prejudice, privilege, ideology, socialization social justice, power, etc.).</td>
<td>I apply and recognize these terms within the school and societal context.</td>
<td>I respond to instances of bias, discrimination, and inequity of within my classroom and school (a short-term level).</td>
<td>I take action and advocate on behalf of (or with) my students to challenge bias, discrimination and inequities (e.g., not comply with school policies that lead to inequitable outcomes and/or experiences for students).</td>
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<td>Multicultural teachers understand the historical and contemporary role of culture and cultural difference and their impact on school-related experiences and outcomes.</td>
<td>I do not yet watch the news on a regular basis and nor do I feel that I am up-to-date with local and national events.</td>
<td>I watch the news on a regular basis and feel that I am up-to-date with local and national events.</td>
<td>I consider whose voices are dominant and whose voices are marginalized in mainstream media.</td>
<td>I recognize that teaching is a political act.</td>
<td>I actively participate in decision-making at a school, community, and/or national level (i.e., school board, hiring committee, department chair, etc.) to advocate on behalf of my students and/or their communities.</td>
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<tr>
<td>5. Understand the sociopolitical context of schools</td>
<td>I am not yet familiar with current educational policies that impact my profession and the students in my classroom (e.g., professional contract, legal rights of students, IEP process, etc.).</td>
<td>I am familiar with current educational policies that impact my profession and the students in my classroom (e.g., professional contract, legal rights of students, IEP process, etc.).</td>
<td>I intentionally seek varied media outlets to gain a wider perspective on local and national events.</td>
<td>I am conscious of the impact of policies on schools and students.</td>
<td>I involve my students, colleagues, and/or administrators in taking action.</td>
</tr>
<tr>
<td>Multicultural teachers know how social, political, and economic factors in the society and community impact their students and schools.</td>
<td>I am not yet aware of the histories, struggles, and accomplishments of various groups (e.g., related to race, ethnicity, gender, SES, sexual orientation, religion, etc.) beyond dates and facts.</td>
<td>I am aware of the histories, struggles, and accomplishments of various groups beyond dates and facts (e.g., related to race, ethnicity, gender, SES, sexual orientation, religion, etc.).</td>
<td>I make connections between the historical and contemporary context of various groups.</td>
<td>I am conscious of and communicate the impact of policies on schools and students.</td>
<td>I challenge the negative impact these factors have on my students’ outcomes and experiences.</td>
</tr>
<tr>
<td>6. Understand the impact of context and culture on students</td>
<td>I am not yet the underlying factors (e.g., motivation, impact, consequences, etc.).</td>
<td>I understand the underlying factors (e.g., motivation, impact, consequences, etc.).</td>
<td>I seek to understand the histories, struggles, and accomplishments of various groups and their impact on my students’ school-related experiences and outcomes (e.g., related to race, ethnicity, gender, SES, sexual orientation, religion, etc.).</td>
<td>I can identify the ways in which some cultural factors and groups are privileged or marginalized in schools (and society) through curriculum, policies, and/or practices.</td>
<td>I help my students understand the ways that some cultural factors and groups are privileged or marginalized in schools and include them in opportunities to respond.</td>
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<td>7. Demonstrate experiential knowledge of school and students’ communities</td>
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<td>Multicultural teachers understand their relationship with and resources within the community.</td>
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<td><strong>I do not yet</strong> believe that it is important to experience my school and/or students’ communities.</td>
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<tr>
<td><strong>I believe</strong> it is important to experience my school and/or students’ communities.</td>
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<td><strong>I see</strong> the students’ and school’s communities as a classroom resource.</td>
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<tr>
<td><strong>I have</strong> authentic experiences in my students’ and school’s communities (e.g., attend events, shop, etc.).</td>
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<td><strong>I critically reflect</strong> on my experiences and interactions within the communities to challenge assumptions.</td>
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<td><strong>I am actively involved</strong> in the community: I have sustained relationships with community members.</td>
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<td><strong>I intentionally connect</strong> the community to my classroom, and my classroom to the community.</td>
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<table>
<thead>
<tr>
<th>8. Create a classroom community that embraces students</th>
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<tbody>
<tr>
<td>Multicultural teachers share power with students to construct a student-centered environment where students are active members.</td>
</tr>
<tr>
<td><strong>I do not yet</strong> utilize student input/voice to guide classroom management, engagement, and curriculum.</td>
</tr>
<tr>
<td><strong>I value</strong> my students’ input/voice regarding classroom management, engagement, and curriculum.</td>
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<tr>
<td><strong>I aim</strong> to create a classroom where students feel responsible for each other.</td>
</tr>
<tr>
<td><strong>I seek</strong> student input/voice regarding classroom management, engagement, and/or curriculum.</td>
</tr>
<tr>
<td><strong>I am aware</strong> of and implement community-building strategies in my classroom.</td>
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<tr>
<td><strong>I use</strong> input from students regarding classroom management, engagement, and/or curriculum.</td>
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<tr>
<td><strong>I reflect</strong> on how student voices are affirmed and respected within my classroom.</td>
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<tr>
<td>My classroom is student-centered as demonstrated through their active role in developing classroom management, engagement, and curriculum.</td>
</tr>
<tr>
<td>I seek student feedback to ensure that they feel a sense of community in the classroom.</td>
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</tbody>
</table>

<p>| 9. Engage in critical reflection to guide practice |
| Multicultural teachers critically self-reflect and seek student feedback to become aware of and address biases that can lead to inequitable experiences and outcomes for students. |
| <strong>I do not yet</strong> understand how my values, attitudes, assumptions, and beliefs are transmitted through what and how I teach. |
| <strong>I acknowledge</strong> that my teaching is not neutral; I understand that my values, attitudes, assumptions, and beliefs are transmitted through what and how I teach. |
| <strong>I am aware</strong> that the choices in what and how I teach can lead to inequitable experiences and outcomes for my students. |
| <strong>I seek</strong> to better understand the impact of what and how I teach on my students’ school-related experiences and outcomes. |
| <strong>I can explain the rationale</strong> (beyond professional requirements) behind my pedagogical and curricular choices. |
| I constantly seek student feedback related to issues of equitable experiences and outcomes in my classroom. |
| I can explain the rationale, (beyond professional requirements), objectives, and sociopolitical implications of my pedagogical and curricular choices. |
| <strong>I constantly reflect</strong> on my pedagogical and curricular choices to uncover implicit or explicit bias. |
| <strong>I identify</strong> deficit- and asset-based thinking in my own pedagogical and curricular choices. |
| <strong>I seek ways to change my pedagogy and curriculum based on my critical reflections.</strong> |
| <strong>I change</strong> my pedagogy and curriculum based on my own critical reflections and/or students’ input. |</p>
<table>
<thead>
<tr>
<th>10. Foster the sociopolitical consciousness of students</th>
<th>I do <strong>not yet</strong> provide opportunities for my students to discuss issues of equity that impact them, their community and/or society.</th>
<th>I provide <strong>teacher-directed</strong> opportunities for my students to discuss issues of inequity that impact them, their community and/or society.</th>
<th>I <strong>facilitate</strong> my students’ understanding of issues of equity and how it affects them and/or their community.</th>
<th>I facilitate <strong>action-oriented</strong> projects with my students related to issues of inequity that impact them, their community, or society.</th>
<th><strong>My students develop</strong> and lead action-oriented projects related to an issue that they identify.</th>
<th><strong>My students demonstrate</strong> an understanding of issues of inequity related to them, their community and/or society.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Multicultural teachers facilitate the development of students who are aware of issues of equity and take action.</strong></td>
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</table>

| 11. Modify curriculum and pedagogy to confront issues of equity | I **do not yet** consider my content area as a vehicle to examine issues of equity related to my students and their communities. | I **see** my content area as a vehicle to examine issues of equity related to my students, their communities, and/or society. | I **seek opportunities** in my curriculum to teach through an equity lens where students engage in content-aligned opportunities to examine issues of inequity (i.e., additive model of isolated activities or lessons). I consciously **select** curricular resources that challenge issues of inequity and/or include voices/perspectives that are marginalized in curriculum. | I **analyze** my curriculum to ensure that it meets content standards, includes varied perspectives, and opportunities for my students to become critical consumers of knowledge (i.e., embedded model leading towards transformation of curriculum). I **model** critical analysis of curriculum and text with students through a discussion of whom and what is privileged in curriculum. | Based on my analysis, I **modify (or design)** curriculum that meets content standards, includes varied perspectives, and provides opportunities for my students to become critical consumers of knowledge (i.e., implementing a transformed curriculum). | **My students play an active role in curricular decision-making to ensure that it is relevant and reflects their realities.** |
| **Multicultural teachers modify curriculum and pedagogy based on their awareness that traditional curriculum marginalizes some students while privileging others.** | | | | | | |
REFERENCES


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StataCorp. (2013). *Stata statistical software: Release 13*. College Station, TX: StataCorp LP.


