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Examining Two Self-Assessment Measures of Teacher Multicultural Competence and Their Predictive Value to Student Behavior Outcomes

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**EXAMINING TWO SELF-ASSESSMENT MEASURES OF TEACHER MULTICULTURAL
COMPETENCE AND THEIR PREDICTIVE VALUE TO STUDENT BEHAVIOR OUTCOMES**

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by

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To my mom and dad. Thank you for always believing in me and being proud of me, and never letting me forget. I love you!

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	v
ABSTRACT.....	vi
CHAPTER	
1 REVIEW OF LITERATURE.....	1
2 METHOD.....	31
3 RESULTS.....	40
4 DISCUSSION.....	49
REFERENCES.....	58
APPENDIX	
A MULTICULTURAL COMPETENCY MEASURES.....	66
B MTCS.....	68
C CRTSE.....	69
D CRTOE.....	71
E CoBRAS.....	73
F MBI.....	74
G TSES.....	75
H STRS-SF.....	76
I IRB APPORVAL FORM- LSU.....	77
J IRB APPROVAL FORM- CFISD.....	78
K ADMINISTRATOR CONSENT FORM.....	79
L CONSENT SCRIPT.....	80
VITA.....	82

LIST OF TABLES

1. Student Demographic Information- Average Class	40
2. Teacher Demographic Information.....	41
3. Mean Levels of Multicultural Competency, Color Blindness, and ODRs	43
4. Pearson Correlations – Multicultural Competency Scales and CoBRAS	42
5. Descriptive Statistics- Ethnic Match	44
6. Analysis of Variances (ANOVA) Based on Amount of Multicultural Training	45
7. Means and Standard Deviations of Groups by Multicultural Training.....	46
8. Summary of Hierarchical Regression Analysis for MTCS Predicating Office Discipline Referrals	47
9. Summary of Hierarchical Regression Analysis for CRTSE/CRTOE Predicating Office Discipline Referrals	48
10. Correlation between measures of multicultural competency and ODRs	55

ABSTRACT

Multicultural competence is a construct that has been discussed in the education literature as an essential skill for teachers' success in reaching all children in the classroom. The current study advances the literature on multicultural competence, specifically pertaining to teachers within their classrooms. Additional evidence was found building upon the technical adequacy of two, theoretically different, measures of teacher multicultural competence. Teachers who received a greater number of hours of multicultural training had significantly higher self-efficacy regarding engaging in culturally responsive teaching practices, than those who had received fewer hours. This study also replicated previous research (Hamilton, 2016) finding that teachers who shared an ethnic match with the majority of their classroom reported higher scores of student/classroom engagement and lower scores of teacher burnout. Interestingly, measures of multicultural competence did not demonstrate significant predictive validity for teachers' self-reported use of exclusionary discipline. Possible explanations, implications, and future directions are discussed.

CHAPTER 1 REVIEW OF LITERATURE

Multicultural competence refers to an individual's ability to integrate their awareness of self and knowledge of other cultures, to build skills for effectively interacting with others from diverse backgrounds (Barrera, Corso, & Macpherson, 2003; Cross, 1989; Roberts et al, 1990; Sue, 1998; Isaacs & Benjamin, 1991). Multicultural competence in the classroom incorporates both teacher and student knowledge of others' cultural backgrounds. Henry Trueba (1986) of UC Santa Barbara, stated that "academic success for all children requires theoretical and practical approaches that recognize the significance of culture in specific instructional settings (i.e. the classroom), prevent stereotyping of minorities, (and) help resolve cultural conflicts in schools" (p. 270). Teachers and students can recognize others' unique cultural experiences and integrate them to make the classroom a more positive, productive and safe environment. In general, definitions of multicultural competence reveal a need for school professionals to acquire multicultural awareness and knowledge and apply this information appropriately in interacting with diverse students and staff. For the purpose of this study, the author will focus on the definition determined by the authors of the *Multicultural Teaching Competency Scale* (MTCS; Spanierman et al., 2011) in combination with the definition provided by the author of the *Culturally Responsive Teaching Self-Efficacy Scale* (CRTSE; Siwatu, 2007) and the *Culturally Responsive Teaching Outcome Expectancy Scale* (CRTOE; Siwatu, 2007). Spanierman et al., define it as:

"Multicultural teaching competency is an iterative [sic] 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. This dynamic process involves complex interaction among micro-level systems or proximal factors (e.g., teachers and other educational personnel, students and their families, and so forth) and macro-level

systems or more distal factors (e.g., political economy, race relations, public policy, and so forth)”;

while Siwatu (2007) states that culturally responsive teaching is a combination of pedagogy that:

“(1) uses students’ cultural knowledge (e.g., culturally familiar scenarios, examples, and vignettes) experiences, prior knowledge, and individual learning preferences as a conduit to facilitate the teaching-learning process (curriculum and instruction), (2) incorporates students’ cultural orientations to design culturally compatible classroom environments (classroom management), (3) provides students with multiple opportunities to demonstrate what they have learned using a variety of assessment techniques (student assessment), and (4) provides students with the knowledge and skills needed to function in mainstream culture while simultaneously helping students maintain their cultural identity, native language, and connection to their culture (cultural enrichment and competence).”

In these definitions, multicultural competence is interpreted in light of the teacher role and emphasizes the interactive nature of multicultural competence where teachers must continually assess their attitudes and knowledge of other cultures, and determine how these factors impact their students; Siwatu (2007) focuses on implementing culturally sensitive practices within all aspects of the classroom.

The construct and emphasis of practicing multicultural competence has been around for over a half a century, starting with a discussion in the 1960s surrounding issues of ethnic or racial diversity (Eisere, 1963; White & Harris, 1961; Reger, 1965) and more recently becoming a popular subject with regard to primary and secondary teacher education and research (Cochran-Smith, 2001; McAllister & Irvine, 2000; Ladson-Billings, 1995; Ward & Ward, 2003; Taylor & Sobel, 2001; Oakland, 2005). Within the past 30 years, research has gained traction in the development of teacher self-assessments of multicultural competence. The assessment instruments are designed to increase teachers’ multicultural awareness and competence as well as

comply with newly mandated national teacher licensing standards (CAEP, 2018; Spanierman, 2011; D’Andrea, Daniells, & Noonan, 2003; Larke, 1990).

To date, many healthcare and school-based surveys of multicultural competence are lacking in psychometric support regarding reliability and validity. Further, measures of multicultural competence have been created from different theoretical viewpoints yet purports to measure a similar construct. Finally, currently available measures are lacking empirical evidence that multicultural competence relates to salient classroom variables (e.g. academic or behavior outcomes of students). A compiled list, found in Appendix A, illustrates how many different measures are being disseminated to professionals in the schools today. Surprisingly, despite no reported information on its technical adequacy or theoretical basis, the National Association of School Psychologists (NASP) has adapted one of these measures, the *Self-Assessment Checklist for Personnel Providing Services and Supports to Children and their Families* (National Center for Cultural Competence; NCCC, 2009), for professionals in school psychology to use for personal self-assessment and enhancement (NASP, n.d.). Further research in the area of multicultural competence self-assessments for educators is needed.

Case for Teacher Multicultural Competence

Multicultural competence is important to support and create optimal learning environments for children (Oakland, 2005). Washington (2003) suggested the elements of knowing, believing, and understanding others is essential to be an effective and competent teacher (Jones, 2009). The National Education Association (NEA) President, Dennis Van Roekel, has stated, “Educators with the skills, knowledge, and attitudes to value the diversity among students will contribute to an educational system designed to serve all students well” (Why Cultural Competence, n.d.). Teachers who can teach effectively, respond sensitively, and

respect students who come from a different culture than their own, show multicultural competence (Van Roeke, 2008; tolerance.org). They create an environment that values diversity and expands on students' different ways of learning, behaving, and using language (Gay, 2010). In creating their lessons, they incorporate students' values, beliefs, and experiences (Echevarria, Frey, & Fisher, 2015). However, to educate and support our teachers, we must provide them with the means to assess their multicultural competence.

Increase of diversity in U.S. public education. Demographics in the United States are changing rapidly due to an increase in immigration (Moule, 2012). This increasing diversity is evident across schools and has filtered down to the classroom level. There are nearly 54 million students enrolled in America's public school system (Planty, Kena, & Hannes, 2009). Recently, for the first time in U.S. history, more children from minority races/ethnicities were born than White, non-Hispanic children (Heavey, 2012). Consistent with this, the White population has decreased from 69% in 2000 to 61% in 2018 (USCB, 2018), a dramatic decrease in comparison to the 1960 census when 85% of the United States was reported to be White (Passel & Cohn, 2008). By the year 2044 more than half of all Americans are projected to belong to a racial/ethnic minority group, and by 2060, nearly one-fifth of Americans are expected to be foreign born (Colby & Ortman, 2014).

Mimicking the decrease in the White, non-Hispanic population in the broader U.S., the public school system has seen a decline in White student enrollment from 59% to 51% between the years of 2002 and 2012. By 2024 the U.S. Department of Education predicts this proportion will fall to 46% of the total student population. Interestingly, the Black student population has decreased from 17% to 16%, between 2002 and 2012 respectively, and is projected to be at 15% by 2024 (NCES, 2015). Increases in the Hispanic, Asian or Pacific Islander, and multiracial

demographic categories seem to be the main contributors to the overall change observed in student demographics. In fact, by 2024, these broad student racial/ethnic groupings should account for 40% of students enrolled in U.S. public schools. If we include the Black student population to this percentage well over 50% of children in our nation's school system will be from a racial and ethnic minority group (NCES, 2015).

Underachievement of minority students. Underachievement of racial/ethnic minority students has been an issue for American schools for many decades; students who start or fall behind are more susceptible to negative outcomes, such as higher dropout rates, overrepresentation in special education and poor mental health (Gay, 2000; 2002; Oaks & Lipton, 2007; White-Clark, 2005; Thompson & Neville, 1999; Fenning & Rose, 2007). A leading author in multicultural competence, Geneva Gay (2000), states that teachers in the classroom must “recognize, honor, and incorporate the personal abilities of students into their teaching strategies” (p. 1). By doing so, it is suggested that the problem of underachievement may be addressed.

Achievement gap. In the U.S., there is overwhelming evidence that children from certain racial/ethnic minority backgrounds do not perform as well academically, as compared to their White, non-Hispanic peers. As one example, O'Malley and Eklund (2013) expose this discrepancy between the academic achievement and aptitude scores of minority students and their Caucasian peers, as well as the greater likelihood of minority students being placed in special education and dropping out of school without a high school diploma or equivalent degree. To date, no one cause has been identified as the reason for this persistent achievement gap, rather a combination of various factors such as, lack of knowledge or sensitivity, racial bias,

or inexperienced teachers (Van Roekel, 2008; Buriss & Burriss, 2004; Manning & Baruth, 2009; Oakes & Lipton, 2007).

Overrepresentation of minorities in special education. The unfortunate fact that racial/ethnic minority children are both overrepresented in special education and underrepresented in gifted and talented programs, has been a glaring concern in education for over 40 years with most research focusing on overrepresentation (Morgan et al, 2015; Oswald, et al., 1999; Sullivan & Bal, 2013; Dunn, 1968; Artiles, Rueda, Salazar, & Higareda, 2005). Racial/ethnic minority children are more likely to be identified as at-risk with respect to academic performance and appropriate developmental behavior. Researchers who are focused on the underrepresentation of gifted and talented students have found that minority students are less likely to be identified by school procedures (Morgan, et al., 2015; Hibel et al., 2010; Morgan, Farkas, Hillemeier, & Maczuga, 2012; Morgan, Staff, Hillemeier, Farkas, & Maczuga, 2013; Shifrer, Muller, & Callahan, 2011; Sullivan, 2013). This has resulted in a hypothesis that children from racial/ethnic minority backgrounds may be being shut out of these programs unfairly due to a lack of cultural sensitivity in screening procedures.

Dropout rates. Culturally and linguistically diverse students make up the largest population of students who dropout in America (Duran, 2008). There are higher dropout and lower high school completion rates for students who are American Indian, Hispanic, Black, or English language learners as compared to their White, non-Hispanic peers. The National Center for Education Information (NCES) reports that the average American public school graduation rate hovers around 81%; Asian/Pacific Islander students having the highest graduate rate at 93%, followed by White, non-Hispanic students at 85%, Hispanic students at 76%, and American Indian and Black students at 68% (NCES, 2015). Negative consequences of not completing high

school include a higher probability of incarceration, lower socioeconomic status, and perpetuating familial cycles of chronic or persistent challenging life circumstances (Manning & Baruth 2009; Roscigno & Ainsworth, 1999).

Other risk factors. Unfortunately, teaching in urban school districts can be more challenging than teaching in suburban or rural school districts as many of the schools are overcrowded, under-resourced, and have a large proportion of students eligible for free or reduced lunch. Students living in poverty are frequently exposed to an elevated number of risk factors which can result in more and varied needs at school (McGrath & Elgar, 2015). Thus, schools in urban settings are often tasked with catching students up academically and require highly knowledgeable and skilled teachers to do so. Yet, the increased challenge and job stress in urban districts often lead to higher teacher absenteeism and turnover, and in relation, greater numbers of new, inexperienced teachers, or non-certified teachers to fill empty positions (Guin, 2004). Therefore, continual training is vital to ensure students are receiving the highest quality and most culturally responsive teaching towards their optimal social and academic functioning.

Limited diversity in teacher workforce. Teachers have the responsibility of educating children and helping mitigate barriers to their academic and social success. Therefore, it is important to examine variables they bring to the classroom that may influence their effectiveness with students, including their level of multicultural competence. A factor that calls for more emphasis, is the fact that the teacher workforce does not reflect the racial/ethnic diversity of the student population (Frankenberg, 2006). Currently, the majority of teachers are female and White (84%; NCES, 2015) and there has been a 15% increase of female teachers and only a six percent increase of racial/ethnic minority teachers over the past 30 years. Hispanic and Black teachers each comprise seven percent of the current teacher population and have grown two

percent and one percent respectively in the last six years. Egalite, Kisida, and Winters (2015) found that there were small but positive differences when Black and White students were assigned to race-congruent teachers. Thus, other factors, such as teacher skill or multicultural competence, likely also make important contributions to minority students' school performance. Though, it should be stated that there is alternate, potentially more meaningful, ways to increase multicultural competence in the classroom besides simply increasing the proportion of racially/ethnically diverse teachers.

Teacher multicultural training. Multicultural competence encompasses the way a teacher reacts towards students of different cultures, either promoting or straining the teacher-student relationship (Baker, 1999). Education literature suggests that many preservice education programs do not offer adequate training to prepare teachers to teach in diverse classrooms (Gay, 2000). "Most culturally diverse students and their teachers live in different worlds, and they do not fully understand or appreciate one another's experiential realities" (Gay, 2010, p. 144). Lack of teacher experience or education may produce culturally unresponsive classrooms, with one consequence being a lower level of achievement of minority students. In relation, some research has shown that there may be a set of teachers who are disinterested in becoming culturally competent, even when training is offered, or believe that there is no need for these skills (Taylor & Sobel, 2001). According to Belefio, Auld, and Lee (2005), a number of teachers in urban schools believe that student "underachievement is a consequence of conditions outside the realm of educational control: lack of parental support, teen pregnancy, lack of technology, lack of funds, economic struggles of the home, school, and/or local community, and lack of student ability" (p. 856). Teachers who believe that diversity is a deficit to overcome, rather than an asset, leads to teachers having low expectations of student learning. This lack of knowledge and

responsiveness to the needs and strengths of diverse students results in detrimental effects on student's psychological wellbeing and academic achievement. Teachers must examine how their assumptions and beliefs about students impact their teaching practices, and consequently their students' outcomes; this is critical to developing effective and sensitive teaching practices.

Governing bodies. Large governing bodies in both education and psychology have emphasized the importance of the multicultural competence of their licensed professionals. This emphasis is evidenced in licensing policies, ethical standards, and professional evaluations (e.g., in yearly reviews of teachers by principals). The Council for the Accreditation of Educator Preparation (CAEP) stresses multicultural competence in its standards, emphasizing the importance of knowledge and skills of teachers to work effectively with students from diverse populations (Spanierman et al., 2011; CAEP, 2018). They have specific standards that teachers must be able to implement learning experiences that are appropriate for diverse families, cultures, and communities (CAEP, 2018). Similarly, the American Psychological Association (APA) and NASP, and the American Counseling Association (ACA). The APA has a set of multicultural guidelines to help practice settings and supervisors recognize the specific standards their professionals are to uphold. Clinical psychologists are therefore given the task to be culturally sensitive and apply culturally appropriate skills towards individuals from varying backgrounds (APA, 2008). NASP charges school psychologists to advocate for evidence-based and culturally competent practices in schools by supporting teachers, counselors, and other school personnel in providing a culturally responsive school environment.

Multicultural Competence and Relationship to Student Outcomes

A teacher's lack of knowledge or appreciation of their students' cultural diversity is hypothesized to result in diminished student performance due to a range of factors, one of the

most documented being lower teacher expectations in academic ability (Horm, 2003; Townsend, 2002). Culturally diverse students who are chronically disengaged report that they lack positive relationships with teachers and are aware of disrespect toward their culture or ethnicity (Suarez-Orozco, Suarez-Orozco, & Todorova, 2008). Students of color have been found to perform below their abilities when exposed to discrimination and prejudice; furthermore, their mental health, self-efficacy, and self-concept can be compromised (Thompson & Neville, 1999).

Although many arguments for teacher multicultural competence are cited in the pedagogical literature, there are few empirical studies demonstrating a data-based connection made between teacher multicultural competence and important classroom variables. However, evidence from psychotherapy literature has established a positive association between multicultural competence and a healthy counselor-client relationship as well as treatment efficacy (Orlinksy, Ronnestad, and Willutzki, 2004; Wampold, 2000; Vasquez, 2007). This can lead us to assume that a multicultural competent teacher who may have more positive teacher-student relationships and greater effectiveness in the classroom.

Similarly, psychotherapeutic literature has found that multicultural competent therapists have greater effectiveness (Sue & Torino, 2005). They outline the tripartite model of multicultural competence, emphasizing the importance of awareness, knowledge, and skill, to be an effective counselor with both similar and diverse clients. Counselors who can form strong, positive relationships with their clients have greater success in client's achieving positive therapeutic outcomes (i.e. decreased depression or anxiety symptoms, increased problem-solving skills). Similarly, the pedagogical literature states that effective teachers, who form strong relationships with their students, have a strong level of multicultural competence. These results

can help form hypotheses that a multicultural competent teacher will have a greater effect on student outcomes and if this is true, teachers, in turn, will have higher self-efficacy.

Although not explored empirically, preliminary evidence (Hamilton, 2016) suggests that teachers' multicultural competence is associated with important classroom variables. The MTCS was shown to be significantly, positively associated with self-reported teaching efficacy and the student-teacher relationship. Findings suggest that teacher knowledge, ability, and skills for working with ethnically diverse students is an important part of teachers' confidence in their teaching practices as well as a factor in forming a positive relationship with their students.

Multicultural Competence, Urban Schools, and Exclusionary Discipline

The context of the teachers and students within this current study will be urban schools. Urban education has been described extensively and in many ways; however, the word 'urban' describes more than just the geographic nature of where schools are placed (e.g. within a large city). 'Urban' reflects a unique "economic, political and social phenomena" (Blanchett, Mumford, & Beachum, 2005, p.72, Schinder, 2015). Additionally, urban schools imply negatively valenced terms such as 'inner-city', 'disadvantaged', or 'at-risk', further perpetuating negative stereotypes and becoming descriptors of the students within these schools. There are also inequities regarding the distribution of educational resources for urban schools as compared to suburban schools (Cochran-Smith, Davis, & Fries, 2004). For example, urban schools often have a preponderance of newly graduated, inexperienced, unlicensed, or inadequately trained teachers (Chizhik, 2003). Consequently, this leads to the perpetuation of underachievement of racial/ethnic minority students who make up a large proportion of students served in urban settings.

In addition to the racial/ethnic diversity of the student population in urban schools, these schools are comprised of large proportions of students from lower SES backgrounds as well as diverse linguistic and religious experiences. Students with one or more marginalized social identities may have limited access and privileges within and outside of the classroom. Consequently, the lived experiences of many students in urban schools may be in stark contrast to those of the predominantly female, White, middle-class teacher-workforce (Howard, 2006). Culturally diverse students who are chronically disengaged report that they lack positive relationships with teachers and are aware of disrespect toward their culture or ethnicity (Suarez-Orozco, Suarez-Orozco, & Todorova, 2008). Additionally, students of color perform below their abilities when exposed to discrimination and prejudice in the classroom, which can also have detrimental effects on their mental health, self-efficacy, and self-concept (Thompson & Neville, 1999). It is important to create an environment that is responsive to all students and their needs.

Awareness and respect for diversity include the diversity of both students and teachers (O'Malley & Eklund, 2013). Teachers may have an indirect influence on how students treat each other as they learn by observation and recognize how the teaching staff interacts with persons of other cultures. Educators play a large role in determining the school climate. Teachers are called to be aware of their own culture, values, assumptions, and biases to know how they may impact their instruction in the classroom. Klump and McNeir (2005), reviewed 50 articles that outline important components of culturally competent practices in education. They found that the classroom should foster inclusion, respect, and connection between students.

The relationship of teacher multicultural competence and student outcomes, particularly exclusionary discipline practices (e.g. office discipline referrals), has not been empirically evaluated to the best of the present author's knowledge, despite the overwhelming evidence that

the practice is detrimental and likely influenced by teachers' cultural knowledge and racial/ethnic biases (Mitchell & Bradshaw, 2013; McIntosh, Girvan, Horner, & Smolkowski, 2014; Fenning & Rose, 2007; Out-of-school suspension, 2013; Skiba et al., 2014; Maag, 2012). Teachers often resort to exclusionary discipline due to lack of education (Fenning & Rose, 2007; Hinojsa, 2008; Skiba et al., 2014). For instance, Anyon et al. (2014) found that school staff often perceive Black and Latino youth as more aggressive, oppositional, and threatening compared to White students, whereas they perceived Asian American youth to be anxious, perfectionistic, and timid.

Teachers see schools as systems for transforming the inequalities of power and privilege perpetuated by the dominant society (Villegas & Lucas, 2002). Culturally responsive teachers understand that schools are often agents for reproducing such social inequities. Therefore, culturally responsive teachers see themselves as change agents, having a clear vision for developing achievement in their students. Culturally responsive teachers do not view children from a deficit mindset, or as problematic. Rather these teachers have caring and affirming attitudes, believing and supporting student achievement, as well as having confidence in their ability to affect positive changes in student outcomes (Gay, 2000, 2002; Ladson-Billings, 1995; Villegas & Lucas, 2002).

Theoretical Models of Multicultural Competence in Education

Tripartite model. Often the tripartite model of multicultural competence serves as the theoretical basis for definitions of the construct. According to this model, multicultural competence is comprised of three factors: *awareness* of one's personal biases through past world experiences, *knowledge* of different cultures, and *skills* to work with students and clients with culturally different backgrounds (D'Andrea, Daniels, & Heck, 1992; Miranda, 2014; Spanierman et al., 2011; Sue, 1992, 2001). Each of these factors is described in more detail below.

Awareness. In order to develop awareness, a person must first have a practice of self-reflection. Miranda (2014) points out that there are important steps to developing multicultural awareness. The first step is acknowledging one's personal biases and prejudices towards other cultures. Second, a person must be aware that other cultures have their standards, attitudes, and beliefs that may not mirror one's own culture. The teacher, in turn, can adapt his/her behavior to be most helpful for a specific student. Next, one must value the cultural diversity that exists and be proactive in learning about the cultures that exist within their immediate community.

Knowledge. The second aspect, knowledge, is connected closely with awareness. Knowledge can be initially gained through courses in college, continued education classes, or personal reading; however, there must remain an awareness to not stereotype any group based on this knowledge. Generalizations used to help learn about different cultures and subcultures can lead to both positive and negative assumptions. There are differences within groups, including subculture variances as well as person-to-person differences (Miranda, 2014).

Skill. Once knowledge of a student's background has been gathered, a practitioner can proceed to act in the student's best interest, as well as tailor possible solutions to best fit the specific student's needs. School personnel must be open-minded, self-reflective, patient, and have a desire to continue educating themselves about other cultures and their students.

Social cognitive theory. Social cognitive theory (SCT) purports that humans have agency over their own lives and actions and explains behavior as a function of the interaction between a person, his/her environment, and past behavioral experiences (Bandura, 1977). In SCT, the role of cognitive processes is emphasized; Bandura (1977, 1986) concludes that a person's cognitions, particularly his/her self-efficacy beliefs and outcome expectations, make significant contributions to predicting future behavior.

Bandura (1986) defined self-efficacy as, “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (p. 391). Self-efficacy is the underlying self-perception to intentionally produce desired change and is a strong predictor of future behavior, having both a direct and indirect effect on behavior (Long & Maynard, 2014). “Knowledge and action are mediated by a person’s belief in their abilities to put the acquired skills to use” (Siwatu, 2007, p. 1088). Of course, self-efficacy will vary depending on the context (e.g. environment and goals); overall, the higher one’s behavior goals and the greater favorability of the outcome, the greater one’s self-regulation and persistence (Bandura, 2004; Long & Maynard, 2014).

SCT also posits that outcome expectations, defined as, “a person’s estimate that a given behavior will lead to certain outcomes” (Bandura, 1977, p. 193), predict future behavior; such that behavior is influenced by the outcomes people expect their actions to produce (Long & Maynard, 2014). Outcome expectations encompass the consequences of engaging in a behavior, in contrast to the beliefs one has about his/her ability to execute a behavior. If a person is highly efficacious, he/she will expect beneficial outcomes. On the contrary, a person who perceives himself/herself as incompetent will expect actions to result in minimal or poor outcomes. Outcomes vary with the positive or negative expectations that accompany them, each positive expectation will motivate a person to engage in a behavior, while negative outcome expectations deter behavioral engagement.

Multicultural competence and SCT. There has been a push within the pedagogical literature for teachers to assess their self-efficacy and self-referent beliefs (outcome expectancy) because these beliefs should predict future behavior in the classroom (Siwatu, 2007; Pajares, Harley, & Valiante, 2001). “A synthesis of the recommendations of Zeichner (1993), Cochran-

Smith (1991), Weiner (1993) and (Haberman 1992, 1995a, 1995b) indicated that efficacy is one characteristic of successful urban teachers” (Guyton & Wesche, 2005, p. 25). Additionally, according to SCT (Bandura, 1977), teachers’ cognitions (or beliefs about their teaching) will be predictive of their display of multicultural competence. Specifically, higher teaching efficacy in one’s ability to execute culturally responsive and sensitive teaching practices, along with the belief in the positive benefits and outcomes associated with these practices, should be associated with more multicultural teaching competence in the classroom.

Given what we know, multicultural competence should lead to more effective teaching for students. Teachers who have a culturally responsive classroom will connect and integrate students’ experiences into the lessons and classroom environment, as well as form effective teacher-student relationships. Research is lacking exploring the link between multicultural competence and teacher effectiveness but there has been a couple of studies that have shown multicultural competence accounts for a small to medium degree of variance in teacher’s self-efficacy (Hamilton, 2016; JohnBull, 2012) and there is a significant body of research regarding the link between teacher self-efficacy and positive teaching behaviors and student outcomes (cf. Henson, Kogan, & Vacha-Haase, 2001). More expansive is the research and evidence in the psychotherapy and counseling literature and positive client outcomes.

Psychotherapeutic literature has found that multiculturally competent therapists have greater effectiveness with clients (Sue & Torino, 2005). This mirrors the pedagogical literature stating that effective teachers, who form strong relationships with their students, have a strong level of multicultural competence. These connections can help form the hypothesis that a multiculturally competent teacher will have a greater effect on student outcomes and if this is true, teachers, in turn, will have higher self-efficacy. Continuing the connection between SCT

and culturally responsive teaching or multicultural competence is Bandura's (2004) last point that our behavior can be shaped and influenced by our external environment. Schools exist within a social system, and this social system is expanding and diversifying quickly within the U.S., especially within schools in urban areas. This rapid diversification not only creates many opportunities for cross-cultural interactions but generates educational goals for how these interactions lead to positive outcomes.

In summary, prominent theories related to multicultural competence in education, the tripartite model and SCT, provide rationales for the need for teachers to assess their levels of multicultural competence. However, what theory best examines and predicts salient school outcomes is a question to be addressed within this study. Let us examine the current literature and measures available for teachers to use.

Available Measures of Teachers Multicultural Competence

As teacher multicultural competence becomes more salient, measures are being adapted from psychotherapist or counselor forms. There are many self-assessments available in the psychotherapy field, but most have problems with their development and validation (i.e., Sadowsky, Taffe, Gutkin, & Wise, 1994; Ponterotto, Gretchen, Utsey, Rieger & Austin, 2002). Unfortunately, thus far, many measures developed for teachers' self-assessment have been adapted from these scales. This has resulted in countless measures of multicultural competence for educators that have relatively no psychometric information. Unsatisfied with those presently available, several school districts and educational organizations have created their self-assessment tools of multicultural competence. These measures are often incorporated into educational programs or settings as tools for building teacher multicultural competence; yet,

similar to those adapted from related fields these scales have limited to no technical adequacy to support their use.

Four of the first teacher multicultural self-assessments created, the *Cultural Diversity Awareness Inventory* (CDAI; Henry, 1986), the *Multicultural Teacher Concerns Survey* (MTCS; Marshall, 1996), the *Teacher Multicultural Attitude Survey* (TMAS; Ponterotto, Baluch, Grieg, & Rivera, 1998), and the *Teacher Multicultural Awareness, Knowledge, and Skills Survey* (MAKSS; D'Andrea, 2003), lack fundamental psychometric properties. The MTCS created by Marshall (1996), asked teachers to report on their beliefs about multicultural awareness, rather than having teachers report on their knowledge and skill. The TMAS has teachers report on their comfortability of teaching students of diverse ethnic or racial backgrounds. The MAKSS was adapted from a counselor version, however, no further validation was completed. Lastly, the CDAI is a 28-question self-assessment that has some evidence of reliability and validity; however, the factor structure rests on 5 factors that are not rooted in recognized theory regarding multicultural competence (General Cultural Awareness, Culturally Diverse Family, Cross Cultural Communication, Assessment, and the Multicultural Environment; Henry, 1986; Larke, 1990).

Development of the MTCS. Recently, Spanierman et al., (2011) have rigorously developed a multicultural self-assessment measure specifically designed for teachers in primary and secondary classrooms. The authors of the MTCS based the development of the scale on the widely recognized tripartite model of multicultural competence. The development, initial validation, limitations, and the call for further exploration of psychometric properties by Spanierman, are briefly described.

Construction of the scale began with defining the construct of multicultural competence. After reviewing the literature, preservice teacher preparation standards, consulting an expert in the field, and receiving feedback from teacher development experts, the researchers decided on the three-fold definition described previously including multicultural awareness, knowledge, and skills. For item generation Spanierman et al. (2011) divided their research team into three sub-teams, each generated a set of items independently. These lists of items were circulated, and then reduction and refinement of this overall item pool occurred until finally 57 items were kept for inclusion in the preliminary measure (MTCS-P, the precursor to the finalized measure). After undergoing a content validation process, these items were further modified, and one item was dropped due to ambiguity. This resulted in a total of 56-items comprising the MTCS-P for the initial validation study. The sample for the validation study contained 548 participants, both in-service and pre-service teachers. The MTCS-P is on a 6-point Likert-type scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Spanierman et al. (2011) conducted three types of analyses for the initial validation of the MTCS: an exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and convergent and discriminant validity estimates comparing the MTCS to the *Teacher Multicultural Awareness Survey* (TMAS; Ponterotto et al., 1998), *Social Dominance Orientation* (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994), and the *Color-Blind Racial Attitudes Scale* (CoBRAS; Neville, Lilly, Duran, Lee, & Browne, 2000), as well as looking at responses to a brief social desirability scale. Interestingly, they found during the EFA the measure loaded on the two factors of, skill and knowledge, as opposed to the hypothesized three; this was confirmed in the CFA (Spanierman et al., 2011). The constructs of awareness and knowledge are very similar, one lending itself to the other, which may explain the factor analysis results. Lastly, the expected

positive correlation ($r = 0.53$) was found to the TMAS, as well as negative correlations with the CoBRAS ($r = -.44$) and SDO ($r = -.28$). A limitation of this research (addressed by the current one) includes the lack of diversity of the pre- and in-service teacher sample. From the three studies, 79% self-identified as White and 4% self-identified as Black; although this sample does reflect the national statistics of teacher demographics in the U.S., it prevented researchers from examining potential group differences in responses. Also, the studies did not explore the relationship between self-reported multicultural competence and other classroom variables (e.g. academic or behavioral outcomes).

Development of the CTRSE and CTROE. Two measures, designed to be used in combination, the CTRSE and CTROE, address the lack of scope seen in most measures of multicultural competence. The CTRSE and CTROE measures include not only racial or ethnic diversity but also linguistic diversity. Additionally, similar to the MTCS, they were developed based on sound and well-established theory, focusing on the constructs of self-efficacy and outcome expectations central to SCT (Siwatu, 2007; Bandura, 1977, 1986). Gibson and Dembo (1984), influential researchers of teacher self-efficacy, wrote: “If we apply Bandura’s theory to the construct of teacher efficacy, outcome expectancy would essentially reflect the degree to which teachers believed the environment could be controlled... Self-efficacy beliefs would indicate teachers’ evaluation of their abilities to bring about positive student change” (p. 570).

The CTROE and CRTSE were developed in tandem and administered to samples of pre-service teachers. The initial validation study (Siwatu, 2007) accomplished three tasks: (a) described preservice teachers’ self-efficacy and outcome expectancy beliefs related to culturally responsive teaching practices, (b) identified the factor structure and internal consistency reliabilities of the CRTSE and CTROE measures, and (c) examined the relationship between the

two measures. The study included 275 pre-service teachers (200 females). Two hundred and fifty-five of the pre-service teachers self-identified as White, while 20 identified as a member of a racial/ethnic minority group (Mexican-, Asian-, or African-American). The sample had a mean age of 21.91 ($SD = 4.87$) and the majority of the participants were majoring in elementary education ($N = 153$), followed by middle school ($N = 18$) and high school education ($N = 104$).

The CTRSE and CTROE were constructed following an extensive literature review aimed at identifying culturally responsive teaching competencies. After identifying 27 empirical indicators (or competencies) of teacher multicultural competence, Siwatu drafted self-efficacy and outcome expectancy belief items that correspond to each of these competencies. The CTRSE consisted of 40 items and the CTROE consisted of 26 items at the time of the initial investigation. Both measures used a 0-100 response format, which allowed for greater differentiation between participants, as compared to a Likert-scale.

Factor analyses revealed that both the CRTSE and CRTOE yielded one-factor solutions; accounting for 44% and 60% of the variance in the respondents' scores on the scales, respectively. The CRTSE factor loadings ranged from .39 to .49, with internal reliability of .96, as estimated by Cronbach's alpha. The CRTOE factor loadings ranged from .55 to .75, with internal consistency reliability of .95, as estimated by Cronbach's alpha. Correlational analysis between the preservice teachers' scores of the CRTSE and CRTOE revealed a strong, positive relationship, $r = .70, p < .001$; supporting Bandura's (1977) theory, past research, and Siwatu's (2007) hypotheses. A limitation of this study includes the stark majority of the pre-service teachers self-identifying as White, female, and middle class, which may lead to issues with generalization of the scales. A unique strength of this study is the inclusion of linguistic

diversity; however, there was no further specific information available about the sample demographics.

To the best knowledge of the current author, only one other dissertation has used the CRTSE and CTROE in their entirety in an empirical study (Snider, 2015). Snider has investigated the predictive value of scores on the CRTSE/CRTOE on student academic outcomes. Similar to Siwatu (2007), Snider found that CRTSE and CRTOE scores were positively correlated ($r = .56$); the CRTSE and CRTOE also showed comparable internal consistency reliability with that found in the original study, .95 and .95, respectively. Additionally, Snider found that, in combination, the CRTSE, CRTOE, and CLASS scores significantly predicted 19.1% of the variance in student reading scores. Her study did not compare different measures of teacher multicultural competence, which the current study looks to extend upon.

Study Rationale and Purpose

The proposed study advances the literature on multicultural competence of teachers within their classrooms. Broadly, this study aids in determining which self-report tool most effectively measures teachers' skills in responding sensitively and effectively to students of diverse racial and ethnic backgrounds. Although there is a responsibility to be aware of and responsive to students of diverse backgrounds, we have failed to provide educators with a technically sound tool to gauge their own multicultural competence in the classroom. Major limitations of the current literature on the assessment of teacher multicultural competency in schools include (a) inconsistent application of valid scale development procedures and, in relation, few investigations of the technical adequacy of available instruments; and (b) a dearth of research examining the relationship of these measures to salient school variables of interest

(i.e., examining the predictive validity and functional utility of the measure). This study seeks to address this second shortcoming with teacher self-report measures that have established initial technical adequacy and are based on sound theory.

The major purpose of this study is to determine which of two theoretical approaches to self-assessment of teaching multicultural competence is the most valid or useful. The first measurement approach, the MTCS, based on the tripartite model of multicultural competence. The second, the CRTSE and CRTOE, are based on Bandura's SCT(1977) which postulates that individual's behavioral performance can be predicted by his/her self-efficacy (i.e., belief in his/her capabilities to execute a behavior) and outcome-expectations (i.e., expectations that a behavior will lead to a certain outcome). This study will first determine if these measures, which purport to assess the same construct, display the expected relationships with a measure of color-blindness. Next, this study will determine whether participants differ in their mean levels of multicultural competence based on their ethnicity/race or linguistic background. Lastly, the study will determine which measure best predicts a school outcome of interest. More specifically, this study will investigate the association between each of the three measures of teacher multicultural competence and teacher self-reported use of exclusionary discipline (i.e., office discipline referrals [ODRs]).

Research Questions:

1. Does the MTCS and CRTSE/CRTOE demonstrate construct validity as compared to the color-blind scale?
2. Do mean scores on the MTCS and CRTSE/CRTOE significantly differ for teachers based on their self-described multicultural identities, including racial/ethnic and linguistic?

3. Is more multicultural training associated with higher scores on the MTCS or CRTSE/CRTOE?
4. Does the MTCS or CRTSE/CRTOE demonstrate predictive validity for teacher use of exclusionary discipline practices (i.e., ODRs)?

CHAPTER 2 METHOD

Participants

Prior to recruitment, the study was approved by the LSU Institutional Review Board and a power analysis was conducted to determine the approximate sample size to detect a small to medium effect in maximum likelihood (80% chance as significant at the .05 level; Cohen, 1988). Based on this power analysis, it was estimated that 90 participants were necessary (effect size input $f^2 = .15$). Participants for this study were 112 in-service, Kindergarten through 12th grade teachers from public and private schools in Southeastern Louisiana and Southeastern Texas. The teacher sample was predominantly male (53%). Forty-six percent of teachers taught elementary school, 13% taught middle school, and 41% taught high school. Teachers identified as White (76%), African American (9%), Asian American (2%), Latino/a (10%), or multiracial or from a racial/ethnic group not listed (3%). Teachers mean age was 37 ($SD = 11$) and their mean years of teaching experience was 9 ($SD = 7$). Classroom students came from various backgrounds concerning race/ethnicity and SES. The racial/ethnic group in the majority in participating classrooms varied: White (15% of teachers' classrooms), African American (28%), Latino/a (48%), other race/ethnicity (5%), and multiracial (e.g. the individual students identity consisted of two or more racial/ethnic backgrounds) 4%). On average, 55% of the students were reported to be eligible to receive free or reduced lunch ($SD = 17$). Twenty percent of teachers' racial/ethnic backgrounds were the same as the majority of the students they taught.

Measures

Demographic Questionnaire Form. Demographic information on participating in-service teachers was collected including age, sex, racial/ethnic and linguistic identity, social-economic status, highest level of education, number of years teaching, current grade level

teaching, and type and quantity of multicultural training completed to date. In addition, basic classroom information was also gathered including number of students in the class, estimated percentage of students eligible for free or reduced lunch, estimated percentage of male students, estimated percentage of students with English as a second language, and racial/ethnic group represented by the majority of the class (i.e., the largest racial/ethnic group comprising the class). School-level data for the majority of school race/ethnicity was confirmed through public record; however, no public data was available for Limited English Proficiency/English Language Learners or Free and Reduced Lunch (FRL). Demographic information was used to determine if any variables correlated significantly with the self-report measures of teacher multicultural competence, to be included as covariates in the multiple regressions. To further explore previous research (Hamilton, 2016), the ethnic match variable was computed and used to determine if there were difference between teachers who shared the same race/ethnicity as the majority (more than 50%) of their students, and their self-report scores on measures of teacher stress/burnout, student-teacher relationship, and teacher-self-efficacy.

Multicultural Teaching Competency Scale (MTCS). The MTCS (Spanierman et al., 2011) is a 16-item self-assessment questionnaire for teachers' self-reported skills or behavior necessary to employ culturally sensitive teaching practices and self-reported knowledge of theories, resources, and classroom strategies for culturally responsive classroom management. The MTCS assesses three areas of multicultural teaching competencies including awareness, knowledge, and skills, the first two (awareness and knowledge) loading on one factor on the scale. The response format for the MTCS is a 6-point Likert-scale ranging from 1 (*strongly disagree*) through 6 (*strongly agree*). Higher scores indicate higher levels of multicultural teaching competence.

The initial validation of the MTCS (Spanierman et al., 2011) found that scale items loaded onto two factors: *multicultural teaching knowledge* and *multicultural teaching skill*. A confirmatory factor analysis showed that this two-factor model was a good fit for the data, slightly diverging from the tripartite model of multicultural awareness, knowledge, and skill that formed the theoretical basis for the scale. The internal consistency reliabilities for the two subscales were .80 and .83 for multicultural teaching knowledge and skill, respectively (total MTCS scale $\alpha = .88$). The authors also included concurrent validity estimates with the TMAS (Ponterotto et al., 1998), and discriminant validity with the CoBRAS (Neville, Lilly, Duran, Lee, & Browne, 2000) and the SDO (Pratto, Sidanius, Stallworth, & Malle, 2001). The MTCS had a significant positive correlation with the TMAS ($r = .51$), a significant negative correlation with the CoBRAS ($r = -.44$), and a nonsignificant negative correlation with the SDO ($r = -.28$). Cronbach's alpha for the present study sample was .88.

Culturally Responsive Teaching Self-Efficacy Scale (CRTSE). The CRTSE (Siwatu, 2007) is a 41-item teacher self-report scale that assesses teachers' confidence in their ability to engage in specific culturally responsive teaching practices. The respondent rates their confidence from 0 (*no confidence at all*) to 100 (*completely confident*). Scores are summed to generate a total score; higher scores on the CRTSE scale indicate a greater sense of efficacy for engaging in specific instructional and non-instructional tasks associated with culturally responsive teaching (see below for details of measure psychometric properties). Cronbach's alpha for the present study sample was .97.

Culturally Responsive Teaching Outcome Expectancy Scale (CRTOE). The CRTOE (Siwatu, 2007) was created in tandem with the CRTSE; it is a 26-item self-report scale designed to assess a teacher's belief that engaging in culturally responsive teaching practices will have a

positive impact on his/her classroom and student outcomes. Teachers are asked to rate the probability that a culturally responsive behavior will lead to a specified outcome (e.g. “Acknowledging the ways that the school culture is different from my students’ home culture will minimize the likelihood of discipline problems.”) by indicating a probability of success from 0 (*entirely uncertain*) to 100 (*entirely certain*). Responses are summed to generate a total score; teachers that believe in the positive outcomes associated with culturally responsive teaching will have higher scores.

Siwatu (2007) created and tested the CRTSE/CRTOE using a large sample of Midwest pre-service teachers ($n = 275$). Participants in his study had mean scores of 3361.89 ($SD = 34.03$, range = 2270 - 3970) on the CRTSE, with mean item scores ranging from 71.01 ($SD = 23.78$) to 92.97 ($SD = 8.91$). In the initial validation of the CRTSE, Siwatu found items loaded onto one factor. The internal consistency reliability was .96, as estimated by Cronbach’s alpha. On the CRTOE, participants had mean scores of 2245.46 ($SD = 224.08$), with scores ranging from 1470 to 2600; mean item scores ranged from 74.62 ($SD = 19.44$) to 93.49 ($SD = 8.62$). Again, investigators found that items loaded heavily onto one factor, ranging from .55 to .75. The internal consistency reliability was .95, as estimated by Cronbach’s alpha. Cronbach’s alpha of the CRTOE for the present study was .95.

In addition to strong internal consistency reliability, Siwatu (2007) found that the CRTSE and CRTOE scores have a strong, positive correlation ($r = .70$); this suggests that teachers who believe they can execute multicultural sensitive practices also believe in the positive outcomes associated with this teaching style, which is consistent with the theoretical underpinnings of the measures (Bandura, 1977; Dussault, Deaudeine, & Brodeur, 2004).

Color-Blind Racial Attitudes Scale (CoBRAS). The CoBRAS (Neville et al, 2000) is a 20-item self-report questionnaire assessing cognitive aspects of color-blind racial attitudes on the bases of three dimensions: awareness of racial privilege (e.g., “White people in the U.S. have certain advantages because of the color of their skin”), institutional discrimination (e.g., “Social policies, such as affirmative action, discriminate unfairly against white people”), and blatant racial issues (e.g. “Social problems in the U.S. are rare, isolated situations”). The response format for the CoBRAS is a 6-point Likert-scale ranging from 1 (*strongly disagree*) through 6 (*strongly agree*), the higher scores indicate higher levels of racial unawareness.

In the initial development of the CoBRAS, Neville et al., (2000) reported internal consistency reliabilities of .86 to .91 for the total score across three studies. Investigators also reported concurrent validity with the Modern Racism Scale (McConahay, 1986) and Quick Discrimination Index (Ponterotto et al., 1995). Specifically, the CoBRAS was shown to have a moderate to strong correlation with the MRS and QDI, suggesting that (as expected) higher levels of color-blind racial attitudes are significantly associated with greater racial prejudice. Neville, Spanierman, and Doan (2006) found that the CoBRAS was significantly, negatively related to the *awareness* and *knowledge*, ($r = -.49$; $r = -.29$, respectively) subscales of a multicultural counseling competence scale. Cronbach’s alpha for the present study was .94.

School Behavioral Records. Teacher self-reported office discipline referrals (ODRs) served as a proxy measure of exclusionary discipline delivered by each teacher. Students receive ODRs from a teacher generally as a result of a minor/major rule infraction or repeated minor infractions (e.g. inappropriate language, continually not following the rules). Behavioral data was collected by the researcher through teacher self-report; teachers reported on the number of ODRs they had delivered in the past 4-week period. This indicator served as a proxy measure of

teachers' use of exclusionary discipline procedures across the current semester, for comparison to all measures of teacher self-assessment of multicultural competence (e.g. MTCS, CRTSE, and CRTOE). Teachers reported on the ODRs they delivered or that resulted from a behavioral infraction they assigned for students in their target classes.

Covariates. In addition to data gathered via primary study measures, data on teacher stress, general teaching efficacy, and their perceptions of the student-teacher relationship were also gathered. These data are being obtained as previous research suggests that they are consistent, significant contributors to teacher practice in the classroom (O'Malley & Eklund, 2013; Hamre & Pianta, 2001; Pas, Bradshaw, & Hershfeldt, 2012; Tschannen-Moran, Hoy, & Hoy, 1998; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010).

Stress. The teacher version of the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1997) was used to assess teacher stress. The MBI is a self-report scale that assesses how frequently teachers experience feelings of burnout, which measures items on a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). The MBI is comprised of 22 items, combining to form three subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Consistent with similar previous research, this study used the Emotional Exhaustion subscale consisting of 9 items as a brief, valid assessment of teacher stress. The internal consistency reliability of the Emotional Exhaustion subscale was .90 previously. Example items include "I feel I am working too hard on my job" and "I feel emotionally drained from my work." Cronbach's alpha of the MBI for the present study was .85.

Self-efficacy. Teacher self-efficacy was measured using the Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001). The short version of the TSES is comprised of 12 items, combining to form three subscales: Efficacy in Student Engagement, Efficacy in

Instructional Strategies, and Efficacy in Classroom Management. Teachers answer questions that assess, “how much can you do” on a 9-point Likert scale ranging from 1 (*nothing*) to 9 (*a great deal*). Internal consistency reliability for the TSES was .90 previously (Tschannen-Moran & Hoy, 2001). The TSES has shown significant, positive associations with other measures of teacher self-efficacy (r range = .18 to .53) and significant, negative associations with work alienation ($r = -.31$). Cronbach’s alpha for the present study was .94.

Student-teacher relationship. A modified version of the Student-Teacher Relationship Scale - Short Form (STRS-SF; Pianta, 2001) was used to assess teachers’ perceptions of their relationships with students as a whole (or in general). This version of the scale is consistent with the Pennsylvania Head Start Staff Wellness Survey (Whitaker, Dearth-Wesley, & Gooze, 2015). To provide information regarding the general relationship teachers perceive themselves having with students in their classes, teachers respond to items like, “I share an affectionate, warm relationship with my students,” and “My students openly share their feelings and experiences with me”, instead of “I share an affectionate, warm relationship with this child” or “This child openly shares his/her feelings and experiences with me” as formatted on the original version of the scale. The STRS-SF is a 15-item self-assessment survey. The scale is designed to measure patterns of conflict, closeness, and dependency in the relationship as well as overall relationship quality. It includes two subscales: *conflict* and *closeness*. Teachers answer questions on a 5-point Likert-scale format ranging from 1 (*definitely does not apply*) to 5 (*definitely applies*).

Confirmatory factor analyses for this scale have resulted in a good fit for the two-factor model (Tsigilis & Gregoriadis, 2008; Drugli, 2013). Estimates of the reliability (Cronbach’s alpha) of the STRS-SF were found to be .82 for closeness and .84 for conflict. Concurrent validity was investigated, and a correlational analysis showed a significant positive correlation

between the conflict subscale and child externalizing problems on the Teacher Report form of the Achenbach Rating Scales ($r = .08$) and negative correlation between the closeness subscale and child externalizing problems ($r = -0.23$; Drugli, 2013). Data on the student-teacher relationship was gathered for this study due to claims in the multicultural education literature that teacher multicultural competence will be reflected in healthy relationships between themselves and their students. Cronbach's alphas for the present study were .76 for the closeness subscale and .83 for the conflict subscale.

Procedures

Recruitment and Consent. Active in-service teachers were recruited from public and private schools in southeastern Louisiana and Texas. Study recruitment followed one of three pathways. The researcher reached out to school principals in New Orleans to secure permission to provide an opportunity to teachers for study participation; the researcher sent out a study solicitation email providing information regarding the study and a link to the online teacher questionnaires. Reminder emails were sent after two weeks and four weeks. Second, teachers were also invited for participation via social media postings (e.g. Facebook). As an incentive for the participants, teachers were offered the opportunity to be entered into a drawing for gift cards to local restaurants (monetary value approximately \$10). Third, the researcher reached out to the IRB of a large school district in southeastern Texas; following their approval for three separate schools (an elementary, a middle, and a high school), they sent out the recruitment email to teachers. Due to district policy, no reminder emails nor incentives were offered.

Data Collection. Study data were collected through a secure survey software tool (i.e., Qualtrics), in the spring of 2018 for the New Orleans school teachers and fall of 2018 for the Southeastern school district teachers. Teacher participants were provided with a brief overview

of the study and the possible incentive (if allowed) for participation via a consent script provided at the onset of the online study questionnaires. Following a review of the consent script, interested participants reviewed study instructions and completed study measures via the secure survey software tool. Following the completion of demographic information, completion of study measures followed in a random order to minimize the chance of order effects. For the New Orleans schools, two bi-weekly study reminders were sent out via email restating the purpose of the study, reminding teachers of the gift certificate drawing, and thanking teachers who have participated.

CHAPTER 3 RESULTS

Descriptive Statistics

Data were explored for missing values and outliers of three standard deviations or more (Tabachnick & Fidell, 2007). One participant had multiple outliers of greater than three standard deviations on self-report measures, this issue was addressed with casewise deletion. There were no missing data for the MTCS or CRTSE; however, there were missing data for 1 participant for the CRTOE, 1 participant for the CoBRAS, 3 participants for the STRS, 3 participants for the TSES, and 2 participants for the MBI. Because missing data on these measures was very limited (i.e., 1-2 items), it was resolved through mean value imputation. All study variables were found to be normally distributed.

Descriptive statistics for multicultural teaching competency scales, color-blind scale, ODRs, as well as multicultural training and behavior management training are presented in Tables 2 and 4. Multicultural survey data show that on average teachers (a) slightly agreed with statements indicating they possessed multicultural knowledge or skills (measured by the MTCS), (b) were moderately confident in their ability to successfully engage in culturally responsive teaching practices (measured by the CRTSE), and (c) were very confident that engagement in culturally responsive teaching practices leads to positive academic, behavioral, and socio-emotional outcomes for students (measured by CRTOE). Additionally, 37% of teachers reported 6-24 hours of multicultural training, while 36% endorsed receiving 25 or more hours. See tables below for more detail on descriptive statistics:

Table 1. Student Demographic Information- Average Class

Student Characteristics	M (SD)	%
Number of Students ^a	21.51(7.41)	
Free and Reduced Lunch ^b	55.3 (17.4)	

(table cont'd)

Student Characteristics	M (SD)	%
Male Students ^b		60
Majority Student Race/Ethnicity ^b		
White		15
Black		28
Latino/a		48
Other		5
Multiracial		4

Note. ^aMedian of students per classroom. ^bTeacher reported estimates per classroom.

Table 2. Teacher Demographic Information

Teacher Characteristics	N	%
Race/Ethnicity		
White	85	76
Black	10	9
Asian	3	2
Latino/a	11	10
Other	2	2
Multiracial	1	1
Language Spoken		
Monolingual (English)	83	74
Bilingual +	29	26
Gender		
Female	53	47
Male	59	53
Grade Level Taught		
Elementary (K-5 th)	51	46
Middle (6 th -8 th)	14	13
High (9 th -12 th)	46	41
Highest Degree Earned		
Associates	1	1
BA/BS	71	63
Masters	35	31
Masters plus credits	5	5
Type of Certification		
Traditional	50	45
Alternative	61	55
Behavior Management Hours		
0-5 hours	11	10
6-24 hours	32	29
25+ plus	69	61
Multicultural Training Hours		
0-5 hours	30	27
6-24 hours	42	37
25+ plus	40	36

Table 3. Mean Levels of Multicultural Competency, Color Blindness, and ODRs

Scales/ Subscales	Total Sample	Ethnic/Racial Group		Linguistic Group	
		Majority ^a	Minority ^b	Monolingual ^c	Bilingual+ ^d
	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Total MTCS	4.24 (.78)	4.21 (.77)	4.33 (.79)	4.19 (.79)	4.29 (.72)
Total CRTSE	76.93 (15.33)	76.35 (16.50)	78.44 (11.83)	76.33 (16.72)	78.66 (10.41)
Total CRTOE	85.16 (12.69)	85.13 (12.32)	85.25 (13.84)	83.84 (13.42)	88.93 (9.53)
Total CoBRAS	2.74 (1.06)	2.87 (1.03)	2.43 (1.07)	2.84 (1.03)	2.48 (1.10)
ODRs	1.56 (3.54)	1.76 (4.00)	1.00 (1.52)	1.41 (2.93)	2.00 (4.92)

Note. ^aReflects the individual identified as White. ^bReflects the individual identified as a member of a racial/ethnic minority group. ^cReflects the individual identified as monolingual, English. ^dReflects the individual identified as bilingual or multilingual (i.e., plus).

Relationship between Multicultural Scales and Color-blind Scale

Bivariate correlations (Pearson r) were calculated between the MTCS, CRTSE, CRTOE, and the CoBRAS and are presented in Table 3. Construct validity was explored between the measures of teacher multicultural competence and the CoBRAS. Convergent validity was demonstrated between the three self-report measures of teacher multicultural competency. Results from Pearson correlations revealed a large, positive correlation between the CRTOE and CRTSE ($r = .51$) and moderate, positive correlations between the MTCS and CRTSE ($r = .47$) as well as the MTCS and CRTOE ($r = .40$); all were significant at the .01 level.

Unexpectedly, the measures of teacher multicultural competence did not show the large, negative correlations expected with a measure of color blindness. However, the CRTOE shared a significant, small to moderate and negative relationship with the CoBRAS ($r = -.25$); while the MTCS shared a small but nonsignificant negative relationship with the CoBRAS ($r = -.11$). The CRTSE did not correlate with the CoBRAS ($r = .01$). More information is provided in Table 4.

Table 4. Pearson Correlations – Multicultural Competency Scales and CoBRAS

	MTCS	CRTSE	CRTOE	CoBRAS
MTCS	1	.47**	.40**	-.11
CRTSE	.47**	1	.51**	-.01
CRTOE	.40**	.51**	1	-.25**
CoBRAS	-.11	.01	-.25**	1

Note. ** $p \leq .01$.

Multicultural Competency and Ethnic/Linguistic Diversity

Six independent samples t-tests were conducted to determine if there were significant differences in mean level of multicultural competence between teachers who self-identified as a member of the racial/ethnic majority (e.g. White) versus a racial/ethnic minority group (e.g. African American, Asian American, Multiracial, etc.), as well as those who speak one or more languages (e.g. monolingual English versus Bilingual/Multilingual). Results revealed that mean levels of teachers' multicultural competence via the MTCS, or the CRTSE/CRTOE, did not differ based on whether or not the teacher identified as part of the racial/ethnic majority versus minority, $t(110) = -0.72, p = .47$, $t(110) = -0.64, p = .52$, and $t(110) = -.4, p = .96$, respectively. Results also revealed that there were no significant differences of scores on the MTCS or the CRTSE/CRTOE between individuals who identified as monolingual and bilingual/multilingual, $t(110) = -1.13, p = .26$, $t(110) = -.68, p = .50$, $t = -1.88, p = .06$, respectively.

Supplemental analyses were conducted to compare the difference in mean level of (a) teacher burnout and stress (MBI), (b) teacher self-efficacy (TSES), and (c) the student-teacher relationship (STRS-Closeness and STRS-Conflict) between teachers of students who are largely of the same race/ethnicity as him/herself (ethnic match) versus teachers of students who are not (no ethnic match). The MBI subscale scores were found to be significantly different between teacher groups. Specifically, Emotional Exhaustion and Depersonalization subscales were

significantly different at $p < .01$, and the Personal Accomplishment subscale was significantly different at $p < .05$. Teachers with an ethnic match in their classrooms reported lower levels of emotional exhaustion and depersonalization, and a greater sense of personal accomplishment. There were no differences between teachers with an ethnic match versus those without one concerning their ratings of STRS-Closeness or STRS-Conflict, $t(110) = 1.66, p = .10, t(110) = -1.42, p = .16$. Nor were there any differences between teacher groups on overall teaching self-efficacy (TSES), $t(110) = 1.64, p = .10$. Interestingly, upon further analysis of the TSES subscales, there were significant differences between teacher groups on the student engagement subscale scores, $t(110) = 2.42, p = .02$. Teachers with an ethnic match expressed greater efficacy in their ability to engage their students. See table below for more information:

Table 5. Descriptive Statistics- Ethnic Match

Scales	Total Sample	Ethnic Match	
	<i>M(SD)</i>	Yes <i>M(SD)</i>	No <i>M(SD)</i>
Maslach Burnout Inventory			
<i>Emotional Exhaustion</i>	3.51 (1.38)	2.81 (1.44)**	3.70 (1.31)
<i>Depersonalization</i>	1.88 (1.20)	1.33 (0.80)**	2.03 (1.25)
<i>Personal Accomplishment</i>	5.48 (0.85)	5.79 (0.86)*	5.39 (0.83)
Teacher Sense of Self-Efficacy Scale	7.46 (1.27)	7.83 (1.03)	7.35 (1.31)
<i>Student Engagement</i>	7.04 (1.47)	7.67 (1.58)*	6.87 (1.50)
<i>Instructional Practices</i>	7.67 (1.29)	7.84 (1.15)	7.62 (1.33)
<i>Classroom Management</i>	7.66 (1.40)	7.98 (1.20)	7.57 (1.44)
Student-Teacher Relationship Scale			
<i>Closeness</i>	4.64 (0.83)	4.89 (0.48)	4.57 (0.89)
<i>Conflict</i>	2.03 (0.68)	1.86 (0.58)	2.08 (0.70)

Note. * $p < .05$, ** $p < .01$, indicate a significant difference between ethnic match and no ethnic match groups.

Multicultural Competence and Training

Four ANOVAs were completed on the four first-order factors comprising the two proposed theoretical approaches (i.e., MTCS-knowledge scale score, MTCS-skill scale score, CRTSE total score, CRTOE total score) to determine if differing levels of multicultural training

resulted in differences on self-report measures of teacher multicultural competency. With regard to participants' hours of multicultural training, group differences among three levels of training were examined: 0-5 hours, 6-24 hours, and 25+ hours. The test of homogeneity of variances revealed that equal variances on the MTCS-skill subscale was violated; therefore, Welch's test was run to correct for it. There were no statistically significant differences between groups on MTCS-skill, MTCS-knowledge or CRTOE total scores, $F(2, 109) = 2.06, p = .13$; $F(2, 109) = 2.08, p = .13$; and $F(2, 109) = 2.05, p = .13$, respectively. Differences in scores on the CRTSE total score were significant at the .10 level, $F(2, 109) = 2.76, p = .07$. A Tukey post hoc test revealed that the scores on the CRTSE were significantly higher between participants who received 25+ hours of multicultural training versus those who had received 0-5 hours ($p = .08$). There were no significant differences between teachers who received 0-5 hours and 6-24 hours ($p = .21$), or between the teachers who received 6-24 hours compared to 25+ hours ($p = .9$) groups. See Tables 6 and 7 for more information.

Table 6. Analysis of Variances (ANOVA) Based on Amount of Multicultural Training

	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
MTCS Skill					
Between	698.85	2	349.427	2.064	.132
Within	18457.41	109	169.33		
Total	19156.26	111			
MTCS Knowledge					
Between	781.16	2	390.58	2.08	.130
Within	20490.19	109	187.98		
Total	21271.35	111			
CRTSE					
Between	2110562.54	2	1055281.27	2.76	.068
Within	41720183.7	109	382753.98		
Total	438307746.3	111			
CRTOE					
Between	437694.23	2	218847.12	2.05	.132
Within	11647200.6	109	106855.05		
Total	12084894.8.8	111			

Table 7. Means and Standard Deviations of Groups by Multicultural Training Hours

	N	M	SD
MTCS Knowledge			
0-5 hours	30	38.90	15.40
6-24 hours	42	33.29	13.01
25 + hours	40	36.70	13.84
MTCS Skill			
0-5 hours	30	27.77	11.24
6-24 hours	42	33.41	12.30
25 + hours	40	33.41	14.84
CRTSE			
0-5 hours	30	2932.43*	582.58
6-24 hours	42	3201.71	625.64
25 + hours	40	3270.43*	628.39
CRTOE			
0-5 hours	30	2142.54	347.52
6-24 hours	42	2189.07	375.92
25 + hours	40	2294.38	245.51

Note. *indicates significant difference between 0-5 hour group and 25+ hour group ($p = .08$).

MTCS and Exclusionary Discipline

First, the researcher explored all potentially relevant demographic variables to determine the need for including them in regression analyses as covariates. The researcher began exploration with variables that have been found to consistently be associated with exclusionary discipline from the literature (i.e., student gender, student race/ethnicity, student socioeconomic status [as measured by FRL], and numbers of years teaching; Sullivan, Van Norman, & Klingbeil, 2014). FRL and years teaching were found to correlate with the STUDVAR (ODR) dependent variable above .20 ($p < .05$); therefore, they were included in the regression models as covariates.

Next, before conducting a hierarchical multiple regression, the relevant assumptions of this statistical analysis were tested. VIF values were well below 5 and the tolerance statistics were well above .02; therefore, we can conclude that there is no cause for concern regarding multicollinearity within our data (Field, 2013). A two-stage hierarchical multiple regression was

conducted with ODRs as the outcome variable. FRL and years teaching were entered at step one of the regression, before investigating in step two how much MTCS scores predicted ODRs above and beyond these variables.

A multiple regression was used to test if scores on the MTCS significantly predicted the number of ODRs. The hierarchical multiple regression revealed that at step one, FRL and years teaching explained a significant amount of the variance in ODRs (i.e., 10%). The addition of MTCS to the regression model did not explain any additional variation in the number of ODRs. When all three predictors were included in the regression, only FRL and years teaching were significant predictors of the number of ODRs. Although the final model was a significant predictor of teachers ODRs, $F(3, 94) = 3.75, p < .01$, the addition of MTCS scores did not make a significant independent contribution. Regression statistics are presented in Table 8.

Table 8. Summary of Hierarchical Regression Analysis for MTCS Predicating Office Discipline Referrals

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				.33	.10	.10**
Free/Reduced Lunch	.23*	2.88	.22			
Years Teaching	-.20*	-2.07	-.20			
Step 2				.33	.09	.00
Free/Reduced Lunch	.23*	2.88	.22			
Years Teaching	-.20*	-2.07	-.20			
MTCS Total Score	.03	.29	.03			

Note. N = 98; * $p < .05$, ** $p < .01$

CRTSE/CRTOE and Exclusionary Discipline

Due to the same outcome variable being investigated (ODRs), preliminary analyses and

step one of the regression model were the same as the previous regression model including MTCS. Consistent with findings above, the addition of CRTSE and CRTOE in step two of the regression model did not explain added variance in the number of ODRs. When all four predictors were included in the final regression model, FRL and years teaching were the only significant predictors of the number of ODRs. Although the overall final model explained a significant degree of the variance in teachers ODRs, $F(4, 93) = 3.37, p < .05$, the addition of CRTSE and CRTOE scores did not add to the variance explained in ODRs. See Table 9 for more information.

Table 9. Summary of Hierarchical Regression Analysis for CRTSE/CRTOE Predicting Office Discipline Referrals

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				.33	.10	.10**
Free/Reduced Lunch	.23*	2.88	.22			
Years Teaching	-.20*	-2.07	-.20			
Step 2				.36	.13	.02
Free/Reduced Lunch	.23*	2.31	.24			
Years Teaching	-.20*	-1.91	-.19			
CRTSE Total	-.19	-1.01	-.10			
CRTOE Total	-.04	-.32	-.03			

Note. $N=98$; * $p < .05$, ** $p < .01$

CHAPTER 4 DISCUSSION

There is a lack of research examining the relationship between measures of teacher multicultural competence and school variables of interest (e.g., the predictive validity of measures). Educators have reported a concern with the cultural mismatch that exists between a majority White, English monolingual and middle-class teaching workforce and the U.S. public school student population that represents a wide variety of races, ethnicities, economic levels, and language proficiencies. This cultural mismatch and the lack of multicultural competency training have been hypothesized to be significant barriers to desired, positive outcomes for students from minority backgrounds. Thus, there has been a call to improve teacher preparation programs so that educators can create an environment that effectively serves diverse students. Researchers have created self-survey instruments to help teachers assess their level of multicultural competence; however, it has yet to be empirically established that these instruments relate to, or predict, important classroom variables, including teacher behaviors and student outcomes.

The primary purpose of this study was to determine which of two theoretically different, multicultural teacher self-assessment surveys is most valid for use in the schools. The first measure, the MTCS, was developed based on the tripartite model of multicultural competence, while the second, the CRTSE and CRTOE, were developed based on SCT. Broadly, the current study established some additional evidence for the technical adequacy of these three measures. However, results also give rise to concerns about the predictive validity of these measures self-assessment tools to important school variables (e.g., ODRs). Although similar to previous findings (Hamilton, 2016), the researcher found that teachers who shared a racial or ethnic match with the majority of the students in their classroom reported some benefits. Specifically, teachers

with an ethnic match had higher self-reported levels of student engagement and sense of personal accomplishment on the job, as well as lower levels of emotional exhaustion and depersonalization.

A unique factor and strength of this study was the diverse sample of teachers who participated; there was racial/ethnic, linguistic, and gender diversity within the sample to a degree uncommon in the educational research literature. Many studies using teacher samples are largely made up of female, White teachers; on the contrary, in this study sample 53% of the teachers self-identified as male, 24% of teachers identified as being from a racial/ethnic minority group, and 26% of the teachers spoke at least one other language beyond English. Thus, the researcher was able to examine potential differences between teachers based on salient demographic characteristics (i.e., race/ethnicity or linguistic status).

Construct validity was explored by comparing the three measures of multicultural competence against themselves as well as to a measure of color-blindness. The MTCS, CRSE, and CRTOE all exhibited significant, positive correlations with each other, which would be expected based on the existing multicultural literature (e.g., Spanierman et al., 2011). The significant, positive associations between the MTCS, CRTSE, and CRTOE provide evidence of convergent validity, such that teachers' perceived multicultural skills and knowledge are indeed associated with their confidence to provide culturally responsive teaching practices, along with their belief that these practices will result in positive outcomes for students. It is noteworthy that the associations between the MTCS, CRTSE, and CRTOE were moderate to large but not high enough to suggest redundancy. Perhaps the MTCS should be used in conjunction with the CRTSE/CRTOE to most comprehensively assess teachers' perceptions of culturally responsive pedagogy. However, further research would be needed to determine how to empirically reduce

the number of overall items across the measures so that the final set were comprehensive but feasible for widespread administration. Lastly, the CRTOE had a significant, but small, negative association with the CoBRAS. This finding is promising for building upon the evidence found to support the construct validity of this scale. However, a small, nonsignificant negative relationship was found between the MTCS and CoBRAS. There was no relationship found between the CRTSE and CoBRAS.

Due to the high degree of diversity in the teacher sample for this study, the researcher was able to examine differences of scores on the multicultural competency measures between teachers who identified as in the majority versus the minority group with respect to race/ethnicity or linguistic status. It was found that teachers who identify as being White compared to teachers who identify as being a member of a racial/ethnic minority group do not differ significantly in their perceptions of their multicultural competency (as measured by the MTCS, CRTSE, or CRTOE). Similarly, it was found that English monolingual teachers compared to multilingual teachers do not differ significantly in their perceptions of their multicultural competency (as measured by the MTCS, CRTSE, or CRTOE). An exploratory analysis was completed to explore differences of CoBRAS scores between teachers of the majority versus the minority group (based on race/ethnicity or languages spoken), and no significant differences were found. However, it should be noted that teachers who identified as bilingual scored lower overall on the color-blind scale at a p-value that was close to significant.

Supplementary analyses were completed to ascertain if findings from a previous related study could be replicated (Hamilton, 2016). Self-reported levels of conflict/closeness between teachers and their students, teacher burnout, and self-efficacy were explored for differences based on teachers' ethnic match or non-match with their classrooms. Overall scores of the TSES

showed no significant differences between the two groups of teachers; however, upon examination of subscales, significant differences were found. Similar to previous findings, teachers who shared an ethnic match with their students reported significantly higher levels of efficacy to engage their students. Previous research has shown that teachers who reported an ethnic match had significantly higher scores of closeness and significantly lower scores of conflict with their students on the STRS (Hamilton, 2016). The current study was not able to replicate these findings. Lastly, teacher burnout levels were examined, which had not been explored before. Overall, teachers who shared an ethnic match with their students reported significantly less burnout, as well as greater personal accomplishment than those who did not share an ethnic match with their students.

There may be a few reasons why findings indicated teachers who share an ethnic match with their students had significantly lower scores of burnout and higher scores of efficacy to engage students and sense of personal accomplishment on the job. First, when there was an ethnic match in the present study it was most often a diverse classroom having a corresponding racially/ethnically diverse teacher. Research has found that teachers of color are more prepared to work with diverse students (Frankenberg and Siegel-Haley, 2008). Additionally, the past experiences of teachers of color and may mirror students' cultural experiences at home (Nieto & Bode, 2008). Teachers of color also hold higher expectations and more positive relationships with students from minority cultures (Downer, Goble, Myers, & Pianta, 2016). Therefore, it may be important that this construct continues to be explored, as all teachers need to have these skills when working with youth from minority backgrounds.

An emphasis on culturally responsive teaching has been called for by educational scholars. This call has resulted in increased training and professional development courses on

multicultural competence. The current researcher wanted to explore whether teachers who have received more multicultural training, had significantly higher perceptions of their own multicultural competence. Results showed that there was no significant difference between teacher groups according to the amount of training they had received on their ratings of MTCS skill, MTCS knowledge, or CRTOE. This is similar to the previous finding of Hamilton (2016) that there was no correlation between the amount of multicultural training and teachers' scores on the MTCS. However, significant differences were found in scores on the CRTSE, depending on the amount of multicultural training received. Teachers reported significantly higher efficacy regarding their ability to engage in culturally responsive teaching practices when they had received 25+ hours of training as compared to 0-5 hours. In other words, teachers who had received a large amount of training on culturally responsive pedagogy believed that they were more capable to enact culturally responsive teaching practices than those who had received very little training. It is possible that these trainings are leading to more teaching efficacy.

An unanticipated, yet important, finding of this study was that neither the MTCS nor CRTSE/CRTOE significantly predicted the number of ODRs teachers delivered. Consistent with past literature, two variables significantly predicted the number of ODRs, teachers years of experience and the percentage of the class receiving FRL (Sullivan et al., 2014). However, analyses showed that the MTCS nor CRTSE/CRTOE demonstrated predictive validity of self-reported exclusionary discipline use. Literature suggests that teachers who have skills in multicultural teaching practices have greater confidence in their ability to effect positive change on students and manage their classrooms (Gay, 2002), but this could not be confirmed in this current study. These findings do not suggest that the CRTSE/CRTOE is not useful for classroom outcomes, as Snider (2015) found that they significantly predicted 19% of the variance in student

reading scores, but they beckon more data to be collected and research completed examining the predictive validity of self-report measures of multicultural competence.

In summary, the researcher found some additional evidence supporting the construct validity of the MTCS and CRTSE/CRTOE, but could not confirm their predictive utility. Scores on each of the multicultural competence scales did not differ for teachers based on their self-described multicultural identity or linguistic diversity. Results did show that teachers who shared an ethnic match with the majority of their classrooms reported significantly lower scores of burnout and significantly higher scores of student engagement. Interestingly, significantly higher scores of self-efficacy (CRTSE) were found for teachers who have 25+ hours of multicultural training as compared to those with 0-5 hours. No differences in scores on the MTCS or CRTOE were found between teachers with various amounts of multicultural training (e.g. 0-5 hours, 6-24 hours, and 25+ hours).

Limitations

A few limitations were identified in the study. The first is that this study relied solely on self-report data. This can result in issues with common method bias. Second, it is unclear if higher scores on teachers' self-reported multicultural competence translate or equate to actual performance in the classroom. Additional indicators of multicultural teaching competence, such as classroom observations or student reports, are needed to provide evidence supporting the accurate measurement of the construct. Next, it is unclear if participants were able to recognize what concepts were being examined and responded in a socially desirable manner. Finally, measurement error can occur due to the conditions under which teachers completed the measures. The participants completed the study on an online platform, so the researcher was not able to control the conditions under which they completed the survey. Many factors may have

influenced their responses, whether positively or negatively, such as distractions in the environment (e.g. home or work) or how the participant was feeling on the day of the survey.

The researcher speculates that there are several potential reasons why the MTCS nor the CRTSE/CRTOE significantly predicted the number of ODRs delivered by teachers. First, is that the number of ODRs were self-reported by teachers and could have been inaccurate. Second, teachers reported for a 4-week period that was a time-limited estimate of their delivery of ODRs. Both of these issues could result in measurement error and, perhaps, a restricted range in the variability of the ODR data. Thus, it is not surprising there was a lack of simple correlations between measures of multicultural competence and ODRs (see Table 10). Lastly, other measures of exclusionary discipline were unable to be collected such as suspensions or expulsions. These data would have been difficult to collect at the secondary level, as a student may have been suspended outside of a specific class or due to multiple tardies, etc.

Table 10. Correlation between measures of multicultural competency and ODRs

	MTCS	CRTSE	CRTOE	ODRs
MTCS	1	.47**	.40**	.03
CRTSE	.47**	1	.51**	-.17
CRTOE	.40**	.51**	1	-.06
ODRs	.03	-.17	-.06	1

Note. **p < .01

Implications and Future Directions

The educational significance of this study is primarily to supplement the literature in the field of teacher education. In particular, this study provides novel information involving measures of teacher self-assessment of multicultural competence, culturally responsive teaching efficacy, and outcome expectancies regarding engaging in culturally responsive teaching. This

study sought to explore the relationship between these measures and their potential to predict a school outcome of high interest (i.e., use of exclusionary discipline).

The result that measures of multicultural competence do not significantly differ between teachers of racial/ethnic or linguistic minority groups and those of racial/ethnic or linguistic majority groups brings about an important point. Assuming an individual may have a competency-based on their demographic background could be problematic. The construct of multicultural competence may need to be taught, practiced, observed, and continually improved upon. Similarly, results indicating that teachers who share an ethnic match with most of their classrooms do not differ in their perceived relationships (i.e. conflict or closeness) with their students. Innately one would believe that ethnic match may lead to better relationships with students whom the teacher shares an ethnic match with; however, results from this study show differently. On the other hand, the ethnic match between teacher and students did result in significantly higher teacher-self-efficacy and lower scores of teacher burnout. More exploration of this construct may be warranted.

A higher amount of multicultural training was significantly related to higher scores on the measure of multicultural self-efficacy. There is a possibility that the training of multicultural teaching practices could be beneficial for a teacher believing that they can and do enact multicultural sensitive teaching practices. More research should explore the positive effects of multicultural training for teachers. This can help inform what information may be taught at the training, what is easily translated over to practice, and how teachers may feel an increase in their confidence to reach students of diverse backgrounds.

It is interesting that all measures of multicultural competence did not explain a significant amount of variance in the ODR above and beyond FRL and years teaching. The researcher

hypothesized that multicultural competence would help explain teacher discipline practices. This result begins to provide empirical evidence toward the gap in the literature that postulates that teachers with greater levels of multicultural competence will not have as high use of exclusionary discipline practices. These results may suggest that other trainings are necessary to decrease the use of exclusionary discipline, such as restorative discipline. New research has found that schools that implement restorative discipline practices often have a reduction in exclusionary discipline practices across all student populations; however, disparities, particularly concerning black youth, persist (Bottiani, Bradshaw, & Gregory, 2018). Perhaps multicultural teaching practices include restorative discipline practices; future research is needed in this area. Overall, this study advances the educational literature and continues to add to the literature pertaining specifically to exclusionary discipline practices and its relationship to the multicultural competence of teachers.

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APPENDIX A MULTICULTURAL COMPETENCY MEASURES

Assessment	Brief Description	Reference
Cultural Diversity Self-Assessment	A broad cultural diversity self-assessment.	http://www.illinoiscte.org/PDF/module/Cultural%20Diversity%20Self%20Assessment.pdf?lbsp_hpreq=1
Cultural Competence Self-Test	Measures cultural competency in: physical environment, materials and resources, communication styles, and values and attitudes.	http://www.healthstartpinellas.org/pdf/Self_Assess_5.pdf
Self-Assessment of Your CQ	A quick individual assessment that looks at one's action, knowledge, strategy, and drive of other cultures.	http://www.culturalq.com/selfassessgo.html
Cultural-Competence Self Test	A video questionnaire measuring one's cultural competence.	http://www.youtube.com/watch?v=Y6d3e-gcOzo
National Center for Cultural Competence-	This assessment is called the Self-Assessment Checklist for Personnel Providing Services and Supports to Children with Disabilities & Special Health Needs and their Families. There are 36 questions and the person completing the assessment has three options to answer on how often a particular question or situation applies to them.	http://nccc.georgetown.edu/documents/Checklist_CSHN.pdf
Cultural Competence Self-Assessment Questionnaire, Service Provider Version-	This link leads the user to a lengthy 79-question quiz on general cultural competency. Questions are geared towards attendance of cultural events, knowledge of the presence in diversity in their community, and other diversity and culture-related topics.	https://www.childwelfare.gov/pubs/usermanuals/fatherhood/append_d.cfm
Promoting Cultural Diversity and Cultural Competency Self-Assessment	A link to a quiz with three options to answer about the frequency of actions taken. It relates to children with disabilities or children that may have health care needs. It is 33 questions and has no answer key.	http://www.nasponline.org/resources/culturalcompetence/checklist.aspx
Cultural Sensitivity Test	This link from the University of Arkansas judges cultural sensitivity by using questions for both personality types and diversity.	http://www.uams.edu/diversity/test.asp
Duke University Employee Self-Assessment Form	This link is for the general employee and is from Duke University.	http://www.hr.duke.edu/managers/forms/SelfAssess.pdf
American Culture Awareness Quiz	This link is about American Culture, we may think we know ourselves but maybe not as well as we'd like to think.	http://www.ethnoconnect.com/american-cultural-awareness-quiz
EdChange Equity and Diversity Quiz	This is a diversity quiz from EdChange that highlights some great questions about equity and diversity.	http://www.edchange.org/multicultural/quiz/quiz1.htm
Cultural Competence Checklist	Is a tool that was developed to heighten awareness of how you view clients/patients from culturally and linguistically diverse populations.	http://www.asha.org/uploadedFiles/Cultural-Competence-Checklist-Personal-Reflection.pdf
Cultural Competence Self-Assessment Questionnaire	Is a tool used by researchers from Portland State University that has instructions, results, study methods, and the questionnaire	http://www.racialequitytools.org/resourcefiles/mason.pdf
Linguistic and Cultural Competency Survey -	This is a self-assessment survey that was designed especially for PACT providers. It encourages the individual to take advantage of this opportunity to evaluate their effectiveness in this area.	http://www.familypact.org/Files/Cultural%20Competency%20Toolkit/Survey_CulturalCompetencyTool-20090514.pdf
Tool for Assessing Cultural Competence Training (TACCT)	Are tools that contain competencies for people seeking careers in the medical field and in general	

Assessment	Brief Description	Reference
University Competencies	Loma Linda University competencies from their library	http://libguides.llu.edu/content.php?pid=38167&sid=282370
Evaluating cultural competence skills	Evaluating cultural competence skills (pre- and post-training) and determining the need for cultural competence training in organizations. Evaluating the effectiveness of cultural competence training programs and curriculum.	http://www.diversityrx.org/topic-areas/cultural-competence-training/assessment
Healthcare professional assessment	A tool for healthcare professionals to set up an assessment to measure the level of cultural competence there is in their organization.	http://www.consumerstar.org/pubs/Culturalcompselfassess.pdf
5 Elements that contribute to cultural competence-	This assessment identifies five elements that contribute to a systems ability to become more culturally competent.	http://www.nlada.org/Training/Train_Civil/Equal_Justice/2004_Materials/020_2004_Handout1
Making Children's Mental Health Services Successful: Organizational Cultural Competence	A Review of Assessment Protocol - This assessment focuses on an organization's cultural competences in relation to making children's mental health services successful.	http://rtckids.fmhi.usf.edu/rtpubs/CulturalCompetence/protocol/CultCompProtocol.pdf
Center of Excellence in Culturally Competent Mental Health; Cultural Competency Scale	This article contains an assessment scale and instructions on how to grade the cultural competences of the implemented scale.	http://ssrdqst.rfmh.org/cecc/sites/ssrdqst.rfmh.org.cecc/UserFiles/Program%20Level%20CCAS%20JUNE%202012.pdf
Using the PCCAS to Assess Cultural Competency	This link is a PowerPoint that assesses the cultural competence in given programs	http://www.nyaprs.org/conferences/prosacademy/documents/SiegelHaugl andReidRose.pdf
ACT Council of Social Services Cultural Awareness Self-Assessment Toolkit	This link is a cultural awareness self-assessment, which provides practice and standards for culturally appropriate services.	http://www.actcoss.org.au/publications/Publications_2009/2109PAP.pdf
Achieving a Culture of Inclusion	This self assessment tool administered by the University of California evaluates the achievement of inclusion into culture.	http://www.universityofcalifornia.edu/facultydiversity/self-assessment-tool.pdf
Diversity Assessment	This assessment allows the reader or reader(s) to brainstorm different scenarios and personal perceptions of diversity.	http://sait.usc.edu/resed/myfresh/Experience/Diversity/Diversity%20Assessment.pdf

APPENDIX B MULTICULTURAL TEACHING COMPETENCY SCALE

TEACHER BELIEFS INVENTORY SCORING PROCEDURE

Spanierman, L. B., Oh, E., Heppner, P. P., Neville, H. A., Mobley, M., Wright, C. V., Dillon, F. R., & Navarro, R. (2011). The Multicultural Teaching Competencies Scale (MTCES): Development and initial validation. *Urban Education, 46*, 440-464.

- 1=Strongly Disagree
2=Moderately Disagree
3=Slightly Disagree
4=Slightly Agree
5=Moderately Agree
6=Strongly Agree

- | | |
|--|--|
| 1. ____ I plan many activities to celebrate diverse cultural practices in my classroom. | 11. ____ I am knowledgeable about the particular teaching strategies that affirm the racial and ethnic identities of all students. |
| 2. ____ I understand the various communication styles among different racial and ethnic minority students in my classroom. | 12. ____ I rarely examine the instructional materials I use in the classroom for racial and ethnic bias. |
| 3. ____ I consult regularly with other teachers or administrators to help me understand multicultural issues related to instruction. | 13. ____ I integrate the cultural values and lifestyles of racial and ethnic minority groups into my teaching. |
| 4. ____ I have a clear understanding of culturally responsive pedagogy. | 14. ____ I am knowledgeable about the various community resources within the city that I teach. |
| 5. ____ I often include examples of the experiences and perspectives of racial and ethnic groups during my classroom lessons. | 15. ____ I often promote diversity by the behaviors I exhibit. |
| 6. ____ I plan school events to increase students' knowledge about cultural experiences of various racial and ethnic groups. | 16. ____ I establish strong, supportive relationships with racial and ethnic minority parents. |
| 7. ____ I am knowledgeable about racial and ethnic identity theories. | |
| 8. ____ My curricula integrate topics and events from racial and ethnic minority populations. | |
| 9. ____ I am knowledgeable of how historical experiences of various racial and ethnic minority groups may affect students' learning. | |
| 10. ____ I make changes within the general school environment so racial and ethnic minority students will have an equal opportunity for success. | |

Item #12, which is bolded above, is reverse scored such that 6 = 1, 5 = 2, 4 = 3, 3 = 4, 2 = 5, 1 = 6. Higher scores indicate greater levels of multicultural teaching competency.

Factor 1: Multicultural Teaching Skill consists of the following 10 items: 1, 3, 5, 6, 8, 10, 12, 13, 15, 16

Factor 2: Multicultural Teaching Knowledge consists of the following 6 items: 2, 4, 7, 9, 11, and 14

For more information please contact Lisa Spanierman lisa.spanierman@asu.edu

APPENDIX C CULTURALLY RESPONSIVE TEACHING SELF-EFFICACY SCALE

Appraisal Inventory

Rate how confident you are in your ability to successfully accomplish each of the tasks listed below. Each task is related to teaching. Please rate your degree of confidence by recording a number from 0 (no confidence at all) to 100 (completely confident). Remember that you may use any number between 0 and 100.

0	10	20	30	40	50	60	70	80	90	100
No					Moderately					Completely
Confidence					Confident					Confident
At All										

I am able to:

- _____ 1. adapt instruction to meet the needs of my students.
- _____ 2. obtain information about my students' academic strengths.
- _____ 3. determine whether my students like to work alone or in a group.
- _____ 4. determine whether my students feel comfortable competing with other students.
- _____ 5. identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home culture.
- _____ 6. implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.
- _____ 7. assess student learning using various types of assessments.
- _____ 8. obtain information about my students' home life.
- _____ 9. build a sense of trust in my students.
- _____ 10. establish positive home-school relations.
- _____ 11. use a variety of teaching methods.
- _____ 12. develop a community of learners when my class consists of students from diverse backgrounds.
- _____ 13. use my students' cultural background to help make learning meaningful.
- _____ 14. use my students' prior knowledge to help them make sense of new information.
- _____ 15. identify ways how students communicate at home may differ from the school norms.
- _____ 16. obtain information about my students' cultural background.
- _____ 17. teach students about their cultures' contributions to science.
- _____ 18. greet English Language Learners with a phrase in their native language.
- _____ 19. design a classroom environment using displays that reflects a variety of cultures.

0 10 20 30 40 50 60 70 80 90 100
 No Moderately Completely
 Confidence Confident Confident
 At All

I am able to:

- _____ 20. develop a personal relationship with my students.
- _____ 21. obtain information about my students' academic weaknesses.
- _____ 22. praise English Language Learners for their accomplishments using a phrase in their native language.
- _____ 23. identify ways that standardized tests may be biased towards linguistically diverse students.
- _____ 24. communicate with parents regarding their child's educational progress.
- _____ 25. structure parent-teacher conferences so that the meeting is not intimidating for parents.
- _____ 26. help students to develop positive relationships with their classmates.
- _____ 27. revise instructional material to include a better representation of cultural groups.
- _____ 28. critically examine the curriculum to determine whether it reinforces negative cultural stereotypes.
- _____ 29. design a lesson that shows how other cultural groups have made use of mathematics.
- _____ 30. model classroom tasks to enhance English Language Learner's understanding.
- _____ 31. communicate with the parents of English Language Learners regarding their child's achievement.
- _____ 32. help students feel like important members of the classroom.
- _____ 33. identify ways that standardized tests may be biased towards culturally diverse students.
- _____ 34. use a learning preference inventory to gather data about how my students like to learn.
- _____ 35. use examples that are familiar to students from diverse cultural backgrounds.
- _____ 36. explain new concepts using examples that are taken from my students' everyday lives.
- _____ 37. obtain information regarding my students' academic interests.
- _____ 38. use the interests of my students to make learning meaningful for them.
- _____ 39. implement cooperative learning activities for those students who like to work in groups.
- _____ 40. design instruction that matches my students' developmental needs.
- _____ 41. teach students about their cultures' contributions to society.

APPENDIX D

CULTURALLY RESPONSIVE TEACHING OUTCOME EXPECTANCY SCALES

Expectancy Inventory

Read each statement below and rate your degree of certainty that the behavior will lead to the specified outcome. You may indicate your certainty by rating each statement on a scale of 0 (entirely uncertain) to 100 (completely certain). The scale below is for reference only; you do not need to use only the given values. You may assign ANY number between 0 and 100 as your degree of certainty.

0	10	20	30	40	50	60	70	80	90	100
Entirely Uncertain	Very Uncertain		Somewhat Uncertain		Not Too Certain	Somewhat Certain		Very Certain		Completely Certain

- _____ 1. A positive teacher-student relationship can be established by building a sense of trust in my students.
- _____ 2. Incorporating a variety of teaching methods will help my students to be successful.
- _____ 3. Students will be successful when instruction is adapted to meet their needs.
- _____ 4. Developing a community of learners when my class consists of students from diverse cultural backgrounds will promote positive interactions between students.
- _____ 5. Acknowledging the ways that the school culture is different from my students' home culture will minimize the likelihood of discipline problems.
- _____ 6. Understanding the communication preferences (e.g., the value of eye-contact; protocol for participating in a conversation) of my students will decrease the likelihood of student-teacher communication problems.
- _____ 7. Connecting my students' prior knowledge with new incoming information will lead to deeper learning.
- _____ 8. Matching instruction to the students' learning preferences will enhance their learning.
- _____ 9. Revising instructional material to include a better representation of the students' cultural group will foster positive self-images.
- _____ 10. Providing English Language Learners with visual aids will enhance their understanding of assignments.
- _____ 11. Students will develop an appreciation for their culture when they are taught about the contributions their culture has made over time.
- _____ 12. Conveying the message that parents are an important part of the classroom will increase parent participation.
- _____ 13. The likelihood of student-teacher misunderstandings decreases when my students' cultural background is understood.

0	10	20	30	40	50	60	70	80	90	100
Entirely Uncertain	Very Uncertain		Somewhat Uncertain		Not Too Certain		Somewhat Certain		Very Certain	Completely Certain

- _____ 14. Changing the structure of the classroom so that it is compatible with my students' home culture will increase their motivation to come to class.
- _____ 15. Establishing positive home-school relations will increase parental involvement.
- _____ 16. Student attendance will increase when a personal relationship between the teacher and students has been developed.
- _____ 17. Assessing student learning using a variety of assessment procedures will provide a better picture of what they have learned.
- _____ 18. Using my students' interests when designing instruction will increase their motivation to learn.
- _____ 19. Simplifying the language used during the presentation will enhance English Language Learners comprehension of the lesson.
- _____ 20. The frequency that students' abilities are misdiagnosed will decrease when their standardized test scores are interpreted with caution.
- _____ 21. Encouraging students to use their native language will help them to maintain their cultural identity.
- _____ 22. Students' self-esteem can be enhanced when their cultural background is valued by the teacher.
- _____ 23. Helping students from diverse cultural backgrounds succeed in school will increase their confidence in their academic ability.
- _____ 24. Students' academic achievement will increase when they are provided with unbiased access to the necessary learning resources.
- _____ 25. Using culturally familiar examples will make learning new concepts easier.
- _____ 26. When students see themselves in the pictures (e.g., posters of notable African Americans, etc) that are displayed in the classroom they develop a positive self-identity.

APPENDIX E

COLOR- BLIND RACIAL ATTITUDES SCALE

Directions. The following is a set of questions that deal with social issues in the United States (U.S.). Using the 6-point scale, please give your honest rating about the degree to which you personally agree or disagree with each statement. Please be as open and honest as you can; there are no right or wrong answers.

- | | | | | | |
|-------------------|---|---|---|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Strongly Disagree | | | | | Strongly Agree |
1. ___ Everyone who works hard, no matter what race they are, has an equal chance to become rich.
 2. ___ Race plays a major role in the type of social services (such as type of healthcare or daycare) that people receive in the U.S.
 3. ___ It is important that people begin to think of themselves as American and not African American, Mexican American or Italian American.
 4. ___ Due to racial discrimination, programs such as affirmative action are necessary to help create equality.
 5. ___ Racism is a major problem in the U.S.
 6. ___ Race is very important in determining who is successful and who is not.
 7. ___ Racism may have been a problem in the past, but it is not an important problem today.
 8. ___ Racial and ethnic minorities do not have the same opportunities as White people in the U.S.
 9. ___ White people in the U.S. are discriminated against because of the color their skin.
 10. ___ Talking about racial issues causes unnecessary tension.
 11. ___ It is important for political leaders to talk about racism to help work through or solve society's problems.
 12. ___ White people in the U.S. have certain advantages because of the color of their skin.
 13. ___ Immigrants should try to fit into the culture and adopt the values of the U.S.
 14. ___ English should be the only official language in the U.S.
 15. ___ White people are more to blame for racial discrimination in the U.S. than racial and ethnic minorities.
 16. ___ Social policies, such as affirmative action, discriminate unfairly against White people.
 17. ___ It is important for public schools to teach about the history and contributions of racial and ethnic minorities.
 18. ___ Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.
 19. ___ Racial problems in the U.S. are rare, isolated situations.
 20. ___ Race plays an important role in who gets sent to prison.

Appendix F
Maslach Burnout Inventory

MBI-Educators Survey

How often:	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

How Often 0-6	Statements:
1. _____	I feel emotionally drained from my work.
2. _____	I feel used up at the end of the workday.
3. _____	I feel fatigued when I get up in the morning and have to face another day on the job.
4. _____	I can easily understand how my students feel about things.
5. _____	I feel I treat some students as if they were impersonal objects.
6. _____	Working with people all day is really a strain for me.
7. _____	I deal very effectively with the problems of my students.
8. _____	I feel burned out from my work.
9. _____	I feel I'm positively influencing other people's lives through my work.
10. _____	I've become more callous toward people since I took this job.
11. _____	I worry that this job is hardening me emotionally.
12. _____	I feel very energetic.
13. _____	I feel frustrated by my job.
14. _____	I feel I'm working too hard on my job.
15. _____	I don't really care what happens to some students.
16. _____	Working with people directly puts too much stress on me.
17. _____	I can easily create a relaxed atmosphere with my students.
18. _____	I feel exhilarated after working closely with my students.
19. _____	I have accomplished many worthwhile things in this job.
20. _____	I feel like I'm at the end of my rope.
21. _____	In my work, I deal with emotional problems very calmly.
22. _____	I feel students blame me for some of their problems.

APPENDIX G
TEACHER SENSE OF SELF-EFFICACY SCALE- SHORT-FORM

Teachers' Sense of Efficacy Scale¹ (short form)

Teacher Beliefs	How much can you do?									
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing									A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
2. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
3. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
4. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
5. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
6. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
7. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
8. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
9. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
10. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
11. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
12. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	

APPENDIX H
STUDENT-TEACHER RELATIONSHIP SCALE- ADAPTED

STUDENT-TEACHER RELATIONSHIP SCALE – SHORT FORM

Adapted for Full Classroom

Original Author: Robert C. Pianta

*Please reflect on the degree to which each of the following statements currently applies to your relationship with your **classroom of students as a whole**. Using the scale below, circle the appropriate number for each item.*

Definitely does not apply	Not really	Neutral, not sure	Applies somewhat	Definitely applies
1	2	3	4	5

1.	I share affectionate, warm relationships with the students in my class.	1	2	3	4	5
2.	Students in my class and I, always seem to be struggling with each other.	1	2	3	4	5
3.	If upset, students in my class will seek comfort from me.	1	2	3	4	5
4.	The students in my classroom are uncomfortable with physical affection or touch from me.	1	2	3	4	5
5.	The students in my classroom value their relationships with me.	1	2	3	4	5
6.	When I praise the students in my classroom, they beam with pride.	1	2	3	4	5
7.	The students in my classroom spontaneously share information about themselves.	1	2	3	4	5
8.	The students in my classroom easily become angry with me.	1	2	3	4	5
9.	It is easy to be in tune with what the students in my classroom are feeling.	1	2	3	4	5
10.	The students in my classroom remain angry or are resistant after being disciplined.	1	2	3	4	5
11.	Dealing with the students in my classroom drains my energy.	1	2	3	4	5
12.	When the students in my classroom are in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
13.	The students in my classroom feelings' toward me can be unpredictable or can change suddenly.	1	2	3	4	5
14.	The students in my classroom are sneaky or manipulative with me.	1	2	3	4	5
15.	The students in my classroom openly share their feelings and experiences with me.	1	2	3	4	5

APPENDIX I
IRB APPROVAL FORMS- LSU



ACTION ON EXEMPTION APPROVAL REQUEST

TO: Melissa Hamilton
Psychology

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: August 23, 2017

RE: IRB# E10561

TITLE: An Examination of the Relationship between Teacher Beliefs, Classroom Experiences, and Student Outcomes

Institutional Review Board
Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.6983
irb@lsu.edu
lsu.edu/research

New Protocol/Modification/Continuation: New Protocol

Review Date: 8/23/2017

Approved **Disapproved**

Approval Date: 8/23/2017 **Approval Expiration Date:** 8/22/2020

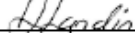
Exemption Category/Paragraph: 1; 2b; 4a

Signed Consent Waived?: No

Re-review frequency: (three years unless otherwise stated)

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable)

By: Dennis Landin, Chairman 

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING – Continuing approval is CONDITIONAL on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE:** When emailing more than one recipient, make sure you use bcc. Approvals will automatically be closed by the IRB on the expiration date unless the PI requests a continuation.

* All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/irb>

APPENDIX J
IRB APPROVAL FORMS-CFISD



Cypress-Fairbanks Independent School District

Department of School Improvement and Accountability

Dr. Christy Dafonte
Research Specialist

To: Melissa Hamilton Grisdale
From: Christy Dafonte, Ed.D.
Cc: Traci Schluter, Michelle Merricks, Jamie Brotemarkle, Sarah Harty, April Wright
Date: November 5, 2018
Re: Approval of Application to Conduct Research in Cypress-Fairbanks ISD

Your request to conduct the research project titled: *An Examination of the Relationship between Teacher Beliefs, Classroom Experiences, and Student Outcomes*, has been approved for Cypress-Fairbanks ISD.

As you pursue this project, please refer to the conditions listed below:

General Conditions:

- ⊙ Keep Michelle Merricks, April Wright, Jamie Brotemarkle, and Sarah Harty, Principal of Emery Elementary, Lowery Elementary, Spillane Middle, and Cypress Lakes HS, informed of all activities involved with the project.
- ⊙ You are approved to conduct your research only on the following campuses: Emery Elementary, Lowery Elementary, Spillane Middle, and Cypress Lakes HS.
- ⊙ Each principal will designate a campus level administrator that will be responsible for sending the survey link and approved email verbiage to campus teachers.
 - The email to solicit survey participation will be sent only once by the campus administrator. If teachers do not respond or take the survey, they will not be contacted a second time.
- ⊙ The researcher is responsible for providing an active link to the Office of School Improvement and Accountability, who will send the email to each campus administrator on behalf of the researcher.
- ⊙ April Wright, the principal for Lowery Elementary would like a copy of the de-identified survey results sent to her.
- ⊙ No interviews have been approved for this research project.
- ⊙ Practice confidentiality while conducting the various steps necessary to complete the project.
- ⊙ Use a pseudonym instead of actual names of campuses or personnel in your research report.
- ⊙ No additional data may be collected beyond the survey responses. No campus information/data is to be shared with the researcher.
- ⊙ Use a random code system to record data collected. Never use actual names, ID, or social security numbers.

10300 Jones Road, Houston, Texas 77065
281.897.4000

P.O. Box 692003
Houston, Texas 77269-2003

APPENDIX K ADMINSTRATOR CONSENT FORM

Administrator Consent

Study Title: An Examination of the Relationship between Teacher Beliefs, Classroom Experiences, and Student Outcomes

Study Overview:

I am Melissa Hamilton, from Louisiana State University, I am a doctoral student in the School Psychology program working on my dissertation project. The following study and research collected will help me examine the association between various teacher variables and classroom student outcomes. Specifically, this study aims to (a) determine which teacher report questionnaires provide the most useful information for schools towards promoting desired student outcomes and (b) what the relationship is between various teacher and classroom variables (e.g., teacher-student relationships, sense of teaching efficacy, multicultural considerations, teacher stress, classroom academic and behavior outcomes).

Participants of this study will include in-service teachers from Texas and the southeastern region of Louisiana. If you allow your in-service teachers to be solicited and participate, the study will take approximately 30 minutes to complete as participants answer seven brief questionnaires pertaining to their classroom experiences. Responses will be gathered electronically through a secure online survey application. Participation is voluntarily. In-service teachers may choose to stop participation at any time. Upon teacher survey completion, class-level de-identified student academic and/or behavioral data will be gathered from participating teachers' classrooms. The collection of this data will maintain the anonymity of students' records. Archival data requested by the researchers may include (a) academic benchmark/progress monitoring data for the target class, (b) total number of behavioral infractions delivered by participating teachers in the target class, (c) total number of office discipline referrals delivered by participating teachers in the target class, and (d) total number of days students were suspended (or expelled) from target classes.

There are no known risks associated with participation in this study. Benefits include contribution to research on useful teacher report tools. Findings from this study will also contribute to our understanding of teacher variables important for teacher effectiveness. As an incentive for participation, in-service teachers may be entered into a raffle for a chance to win a \$20 gift card and the school with the highest proportion of completed surveys may win a teacher event (e.g., free lunch).

Consent for Solicitation:

If you have any questions regarding the research, contact Melissa Hamilton at mhami33@lsu.edu or 713-202-1478. You can also contact Dr. Anna Long at along@lsu.edu or 225-578-7605. This study has been approved by the LSU IRB. For questions concerning participant rights or other concerns, please contact the IRB Chair, Dr. Dennis Landin, 225-578-8692, or irb@lsu.edu.

The study has been discussed with me and all my questions have been answered. I agree to allow my teachers to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

Signature: _____ Date: _____

APPENDIX L CONSENT SCRIPT

Informed Consent

- Study Title: An Examination of the Relationship between Teacher Beliefs, Classroom Experiences, and Student Outcomes
- Performance Site: Elementary, middle, and high schools in Texas and southeastern Louisiana
- Investigators: The following investigators are available for questions about this study, M-F, 9:00 a.m. - 4:00 p.m.
Melissa Hamilton
School Psychology Doctoral Student
Department of Psychology, Louisiana State University
(713) 202-1478
mhami33@lsu.edu
- Dr. Anna C. J. Long
Department of Psychology, Louisiana State University
(225) 578-7605
along@lsu.edu
- Purpose of the study: The purpose of this study is to examine the association between various teacher variables and classroom student outcomes. Specifically, this study aims to (a) determine which teacher report questionnaires provide the most useful information for schools towards promoting desired student outcomes and (b) what the relationship is between various teacher and classroom variables. Teachers will be asked about their educational beliefs and classroom experiences (e.g., teacher-student relationships, sense of teaching efficacy, multicultural considerations, and teacher stress), in addition class-level, de-identified student data will be gathered from school records when available.
- Participant inclusion: Must be a current in-service, K-12th grade teacher.
- Number of subjects: Up to 300
- Study Procedures: The study will take approximately 25-30 minutes to complete as participants answer seven brief questionnaires pertaining to their educational beliefs, classroom experiences and practices. Responses will be gathered electronically through a secure online survey application. Archival class-level academic and/or behavioral student data will be gathered when available, on participating teachers' classrooms.
- Benefits: Findings from this study will contribute to research on teacher variables important for teacher effectiveness. Findings will also provide information about the most useful teacher report tools. Participating teachers will have the opportunity to be entered into a raffle for a chance to win a \$20 gift card upon *completion* of study surveys. In addition, the school with the greatest proportion of teacher participation may win a teacher event (e.g., free lunch).
- Risks: There are no known risks associated with participation in this study.

CONSENT SCRIPT CONTINUED

- Right to Refuse: In-service and pre-service teachers may choose to not participate or stop participation at any time without penalty or loss to any benefit to which they might otherwise be entitled.
- Privacy: Data will be collected electronically using a secure online survey application. Your individual responses will be kept strictly confidential, will not be shared with any administrators or other staff members at your school, and digital data will be stored in a protected electronic format. To maintain confidentiality, upon completion of study data collection, teachers will be assigned a unique ID number and all of their identifying information will be removed from the study database. Furthermore, identifying data housed via the secure online survey system will be expunged. Any report of this research that is made available to the public will not include your name or any other individual information by which you could be identified.
- Financial Information: Teachers may enter into a raffle for a chance to a \$20 gift card from a major retailer or restaurant (i.e. Target, Walmart, Amazon) for their time.
- Consent: The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects' rights or other concerns, I can contact Dennis Landin, Chairman, LSU Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb. I agree to participate in the study described above and acknowledge the researchers' obligation to provide me with a copy of this consent form if signed by me.

By continuing this survey, you are giving consent to participate in this study.

VITA

Melissa J.H. Grisdale, a native of Sugar Land, TX, received her bachelor's degree at the University of Houston in 2011. She then started a counseling master's degree program in the fall of 2012 where she began seeing children at a private practice. It was there where her desire to reach a broader range of children began to grow. After graduation in 2014, moved to Baton Rouge, in pursuit of a doctoral degree at Louisiana State University in the field of school psychology. She recently completed an APA-accredited predoctoral internship at Cypress-Fairbanks Independent School District (CFISD) in Southeast Texas. Melissa plans to graduate with her Ph.D. in August 2019. She has accepted a postdoctoral fellowship position in CFISD as a Licensed Specialist in School Psychology and will become a Licensed Psychologist in the near future. She currently resides in Richmond, TX with her husband and son.