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As a student whose primary years of schooling were marred by bussing, due to school desegregation laws, I didn't understand the value of connecting with the teacher in the schools that I attended. It wasn't until high school that my principal showed me through her actions of support, recognition, and acceptance that I was enough and that my strengths could help me succeed. I will never forget the day that I showed up to school and she was wearing my basketball jersey. Her intentional outreach to acknowledge and forge a bond with her students made all of the difference in school for me. I now know that she was being Culturally Responsive and that her actions toward me helped shape who I am in education today.

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ABSTRACT

There exists a pattern of underperformance in minority children in urban school districts across this country. Nationally, minority students—especially African American students—score lower on standardized assessments than non-minority peers (NCES, 2020). Ladson-Billings (1995a), Gay (2000), and Villegas and Lucas (2002) contribute seminal research and provide a foundation for using culturally responsive instructional practices as a method for producing high academically performing African American students. In general, teachers have not been expected to teach in culturally responsive ways for minority students, nor have they been adequately trained in the ability to create and incorporate pedagogical practices that have relevance and meaning to students' social and cultural realities (Howard, 2003). Bandura (1997) posits that if teachers possess self-efficacy in their teaching practices, they can meet the needs of students. This dissertation examines the perceived overall level of Culturally Responsive Teaching Self-Efficacy among teachers regarding curriculum and instruction, classroom management, student assessment, and cultural enrichment in the target school district.

This study utilizes Siwatu's (2007) Culturally Responsive Teaching Self Efficacy (CRTSE) tool to survey pre-kindergarten through grade 12 teachers in 2018 and 2021, in a predominately African American small midwestern school district, servicing 1,100 students. The CRTSE was originally utilized to help gauge teachers' pre-service dispositions towards their ability to utilize Culturally Responsive Teaching (CRT), which is defined herein as the reflection on and consideration of the relationship between culture and learning (Siwatu, 2007). Utilizing CRT, teachers acknowledge student differences and incorporate those varied experiences that individual cultures create to fashion environments and pedagogy for all learners while emphasizing self-advocacy. Culturally Responsive Teaching has become increasingly important

as the demographics of our public schools are increasingly shifting. In 1999, the teacher population was 84% white and today, it has changed to 79%, which guarantees that most children in public schools will be taught by a teacher that does not identify as an ethnic minority (NCES, 2020). An analysis of the CRTSE data revealed that teachers in both data sets (41 and 47 teachers respectively) rated themselves as low in strategies socio-cultural in nature. The results of this needs assessment will be used to inform implications for future practice for this midwestern school district.

Keywords: Culturally Responsive, Culturally Responsive Teaching, Self-Efficacy, Culturally Responsive Teaching Self-Efficacy.

CHAPTER ONE

Introduction

The need for teacher and student interactions aligned with student identity and culture is essential for student success (Gay, 2000; Hilliard, 1995; Howard & Terry, 2011; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992; Siwatu, 2007). Pedagogical approaches that integrate identity and culture are needed in today's schools where teachers and students come from different backgrounds. (Spindler & Spindler, 1993). Teachers carry into the classroom their cultural backgrounds (Faltis & Valdes, 2016; Finnan, 2013; Milner, 2017; Spindler & Spindler, 1993), which can bias how they see students and their potential. Likewise, students come to school with cultural backgrounds that influence their perceptions of teachers, other students, and the school itself (Finnan, 2013; Spindler & Spindler, 1993). Together, students and teachers construct their perceptions, mostly without being conscious of doing so. They construct what Spindler and Spindler (1993) refer to as an environment of meanings. When these environments of meetings derive from assumptions that are different from student identities and cultures maladaptive behaviors and lower performance can set in (Spindler & Spindler, 1993). In many U.S. schools, environments of meaning are primarily guided by white social norms because the population of teachers is predominately white, and American schools operate primarily using European constructs (Faltis & Valdes, 2016).

Teachers bring with them into schools and classrooms cultural scripts that reflect beliefs, experiences, and practices. For the majority of teachers who are Caucasian and work in majority minority schools the scripts are not aligned with their students (Faltis & Valdes, 2016). Awareness of these dispositions that teachers bring to the classroom, likely unconsciously, is

important to develop a learning environment that meets the needs of diverse populations. Students deserve support in ways that will lead them to reach their full potential as learners, embrace their cultural identity, and allow for them to build on their inherent strengths. Many traditional teaching strategies have not worked at connecting culturally diverse students to school and academic pursuits which fueled concerns for culturally responsive practices (Gay, 2000; Hilliard, 1995; Howard & Terry, 2011; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992; Siwatu, 2007). But it is arguably the last decade that has seen attention to Culturally Responsive Teaching and its value for students of color spread (Hayes & Fasching-Varner, 2015; Siwatu, 2007). More school leaders need to understand how culturally responsive teaching supports students of color.

Culturally Responsive Teaching (CRT) practices were born out of a concern for the chronic low achievement of racial culturally diverse students in American schools (Gay, 2000; Hilliard, 1995; Howard & Terry, 2011; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992; Siwatu, 2007). Schools argued and advocated for the implementation of an instructional approach that is equitable and culturally responsive (Gay, 2000; Hilliard, 1995; Howard & Terry, 2011; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992; Siwatu, 2007). The central tenets of CRT is that students from culturally diverse backgrounds can achieve academically. Achievement gaps reflect a misalignment between student needs and structures of educational systems (Irvine, 1990). CRT bridges the gaps by organizing learning around student identities and cultures (Ladson-Billings, 1995a). Through descriptive and grounded theory studies, researchers such as Ogbu (1992), Irvine (1990), Ladson-Billings (1995a), Hilliard (1995), Gay (2000), Siwatu (2007), and Howard and Terry (2011) identified instructional strategies that consistently support the high academic achievement of culturally diverse students and provide a

way for students to maintain their cultural identity. Such teaching and pedagogical practices have been identified in the literature as culturally compatible (Jordan, 1985), culturally congruent (Au & Kawakami, 1994), culturally relevant (Ladson-Billings, 1995a), and culturally responsive (Gay, 2000). Despite the different labels these researchers use to describe such culturally based strategies, each approach possesses the same core tenets of developing a fit between students' home cultures and the culture of school and classrooms (Milner, 2011).

Three realities illustrate the need for CRT. First, the rate of underachievement for African American and Hispanic students is consistently lower than their white counterparts (NCES, 2019). Second, Caucasian middle-class educators are teachers of mostly culturally diverse students in the United States (NCES, 2020). This trend is not likely to change as the pipeline of minority educators does not produce enough teachers of color to diversify the teaching profession (NCES, 2020). Also, most African American and Hispanic students attend schools with high minority enrollment, usually 75% or more (U.S. Department of Education, 2019). Lastly, the lack of training in college preparation programs regarding culturally responsive practices, whether for the preparation of minority teachers or non-minority teachers, has traditionally been insufficient and contained little or no information regarding culturally responsive practices (Siwatu, 2007). Student academic success partly hinges upon a teacher's ability to recognize the contributions that culture brings to classrooms and their ability to utilize culture to engage students in active learning. (Milner, 2017). In short, CRT creates conditions that allow students to reach their potential (Ladson-Billings, 1995a).

Gay (2002) defines CRT as a pedagogy that uses ethnically diverse students' cultural characteristics, experiences, and perspectives as conduits for more effective teaching. Other researchers have also explored the practice of adapting instruction and instructional approaches

to meet the needs of culturally diverse learners, including Ogbu (1992), Irvine (1990), Ladson-Billings (1995a), Hilliard (1995), Gay (2000, 2010), Siwatu (2007), and Howard and Terry (2011). These researchers share similar views regarding the importance of recognizing, celebrating, and utilizing the cultural histories of culturally diverse students to improve teaching and learning. They generally argue that by understanding the cultural background of culturally diverse students, teachers could draw on students' heritage, previous experiences, and preexisting knowledge as sources of insight into their lives. Educators can use such cultural awareness and understanding to make connections, build relationships, and structure lessons in ways that permit culturally diverse students to experience increased academic success (Gay, 2002).

Statement of the Problem

The research problem leading to this study derives from two realities. The first reality is the persistent achievement gaps between white students and students of color (Gay, 2000; Hilliard, 1995; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992). Some evidence is beginning to emerge that these gaps stem from misalignment between structures of educational systems and student identities and cultures. Culturally Responsive Teaching can address these gaps. The second reality is the knowledge gap related to the implementation of CRT in the school district in which this needs assessment takes place. The district had been using CRT since 2015, but it has not systematically studied the capacity of teachers to effectively implement CRT.

Nationally, culturally diverse students, primarily African American and Hispanic students, score lower on standardized assessments, including the National Assessment for Educational Progress (NAEP), American College Test (ACT), and the Scholastic Aptitude Test (SAT) (NCES, 2019). African American and Hispanic students consistently underperform on reading and math NAEP exams (NCES, 2019). In 2017, an analysis of the grade four NAEP reading data

revealed that only 20% of African American and 23% of Hispanic students scored proficient and above proficient while 47% of Caucasian students scored proficient and above proficient. The fourth-grade math data showed a more significant achievement gap revealing that 19% of African American and 26% of Hispanic students scored at proficient and above proficient, while 51% of Caucasian students tested at proficient and above proficient (NCES, 2019).

Further, African American, and Hispanic students consistently have scored lowest on SAT scores compared to their Caucasian peers (College Board, 2018) Twenty-one percent of African American students and 31% of the Hispanic students met both the evidenced-based reading and math benchmarks, while their Caucasian peers met 59% of both benchmarks (College Board, 2018). The National SAT profile (College Board, 2020) reveals a similar picture. Twenty percent of African American students and 28% of Hispanic students met both benchmarks, while their Caucasian peers met 56% of both benchmarks. The most recent National SAT profile (2021) offers somewhat similar results. Twenty-two percent of African American students and 28% of Hispanic students met both benchmarks, while 57% of their Caucasian peers met both benchmarks. This data reveals a 35% and 27% gap between African American and Hispanic students and their Caucasian counterparts meeting both evidence-based reading and math benchmarks.

A deeper dive into national assessment data where distinct achievement gaps are pervasive uncovers a similar pattern in ACT scores (College Board, 2020). The National ACT Profile Report (2018) indicates that the percentage of African American seniors who met the ACT college readiness benchmark in English, Math, and Reading was 32%, 13%, and 20%, respectively. The results were somewhat higher at 46%, 26%, and 33%, respectively, for Hispanic students but still below their Caucasian counterparts at 72%, 49%, and 56%,

respectively. A breakdown of the National ACT Profile Report (ACT, 2020) presents similar gaps between the ethnic groups. African American seniors who met the ACT college readiness benchmarks in English, Math, and Reading were 30%, 12%, and 19%, respectively. Again, Hispanic students scored somewhat higher at 43%, 24%, and 31%, respectively, but still below their Caucasian counterparts at 69%, 46%, and 54%, respectively (College Board, 2020) To improve the learning outcomes of culturally diverse students more must be done. CRT is one strategy some researchers believe is a promising mechanism to reduce long-standing inequities in achievement for culturally diverse students (Irvine, 1990; Ogbu, 1992; Hilliard, 1995; Ladson-Billings, 1995a; Gay, 2000; Villegas & Lucas, 2002; Siwatu, 2007; Howard & Terry, 2011, 2021).

Although small in sample size, studies have shown that culturally responsive teaching practices have led to promising gains in student achievement (Tate, 1994; Nasir 2008; Bui & Fagen, 2013; Hubert, 2014; Aronson & Laughter, 2016; Brown & Crippen, 2016; Stormer, 2017). Using a case study approach, Hubert (2014) found that introducing CRT instructional practices increased positive views, improved their attitudes, and increased interest in mathematics for 34 students in an alternative math class. Participants' pre and post-test scores also improved by one letter grade, and they reported more confidence in taking their state exams. Similarly, Bui and Fagen (2013) found statistically significant mean gains from pre to post-test in recognition, reading comprehension, and story retelling for 49 elementary students after using CRT-based interventions.

Stormer (2017) examined the perceptions and writing processes of three African American male eighth-grade students using the Flower and Hayes (1981) writing model. Through a collection of interviews, writing samples, and feedback, researchers recreated a

Relational Writing Model grounded in Culturally Responsive practices to improve the writing process outcomes for these students on their state writing exam. Students ultimately improved their writing scores on the state exam at higher rates than students who did not use the Relational Writing Model.

Tate (1994) utilized Culturally Responsive practices through teaching math by incorporating a problem in the community. Students improved their math outcomes on formative assessments and reported having more interest based on their application of curriculum objectives to solve a community concern (Tate, 1994). Nasir and Hand (2008) used the game of basketball with a group of culturally diverse students to teach statistics. Through the game of basketball, the students acquired knowledge in statistics and analysis that allowed them to outscore their peers who did not participate in the study (Nasir & Hand, 2008). Aronson and Laughter (2016) found increases in student motivation and interest in curricular content (Aronson & Laughter, 2016). Researchers Brown and Crippen (2016) documented through interviews and observations that students' interest and motivation increased in the area of science when teachers were enabled to identify responsive instructional strategies and relevant science topics and make purposeful connections with students.

Although CRT is a construct that builds on students' inherent knowledge and uses the students' culture to help them create knowledge to perform well both in the classroom and in life, it has not traditionally been part of teacher preparation programs (Ladson-Billings, 2006; Hammond, 2021). Hayes and Fasching-Varner (2015) argue that teacher education programs are responsible for allowing teachers to exit programs without exploring their previously held beliefs about race or culture. In general, the expectation for teachers to instruct in culturally responsive ways for culturally diverse students is lacking (Siwatu, 2007). They have also not received adequate training to construct or utilize pedagogical practices that have relevance and

meaning to students' social and cultural realities, even though they are the gatekeepers to student success (Howard, 2003; Howard, 2021).

In 2016, this midwestern district began the process with parents, staff, and students to draft a strategic plan that outlined the need to address the less than desired academic outcomes of the diverse population in the district. This plan included goals regarding 1) culturally responsive standards-aligned instruction, 2) strong relationships with families, 3) having an effective teacher for every student, and 4) data-driven continuous improvement, all of which align with the tenets of Culturally Responsive Teaching.

For teachers in this district to use CRT effectively, they must see the classroom through a CRT lens and have the capacity to integrate student experiences into their instruction. The researchers' problem is that the district has no evidence to assess the degree to which teachers are developing the mental scripts to use CRT effectively. There is a need to capture evidence of teacher efficacy for CRT to help understand the needs for teachers' development in this area. Efficacy is an individual's belief that they have the capacity to perform a specific task (Bandura, 1977). Efficacy beliefs influence teachers' persistence and support their determination to persist (Milner & Hoy, 2003); therefore, understanding the teachers' level of self-efficacy regarding Culturally Responsive Teaching is essential to determining a path to improved student outcomes.

Purpose of the Study

This dissertation study examined the perceived overall CRT Self-Efficacy among teachers regarding curriculum and instruction, classroom management, student assessment, and cultural enrichment in the target school district. CRT Self-Efficacy involves teachers' self-perception of their efficacy to execute specific culturally responsive teaching tasks (Siwatu, 2007). According to Bandura (1997), for teachers to be successful at an initiative, they must

feel efficacious. Self-efficacy forms by supporting behaviors that are the building blocks of a task or initiative (Bandura,1977, 1997). Developing an understanding of the existing levels of self-efficacy regarding CRT is foundational to developing support for improvement. By understanding the students' backgrounds, family structures, social dispositions, and needs, CRT can be used to reach students who traditionally have appeared to be unreachable with conventional approaches in U.S. schools. By preparing teachers to utilize CRT, they can better meet all students' needs, no matter their backgrounds.

This study determined the perceived overall level of CRT Self-Efficacy among participating teachers to make recommendations to support the building of self-efficacy in teachers, which may ultimately lead to improved outcomes for students. Understanding the level of CRT self-efficacy in this study is paramount to understanding how to support training for teachers to improve student learning. To this end, the researcher conducted a needs assessment to identify the teachers' current levels of confidence regarding CRT and highlight any gaps within their self-identified abilities. The researcher used the CRT Self-Efficacy (CRTSE) Likert Scale, a 41-question needs assessment, to gauge the existence and use of CRT in the target urban school district. Findings from this study will illuminate areas for development related to CRT self-efficacy, which can assist district administrators in creating professional development opportunities focused on utilizing CRT to improve student learning outcomes.

There were seven research questions guiding the process (RQ):

- **RQ1-**What is the perceived overall level of CRT self-efficacy among teachers in the target school district?
- **RQ2-**What is the perceived level of CRT self-efficacy in curriculum and instruction

among teachers in the target school district?

- **RQ3-**What is the perceived level of CRT self-efficacy in classroom management among teachers in the target school district?
- **RQ4-**What is the perceived level of CRT self-efficacy in student assessment among teachers in the target school district?
- **RQ5-**What is the perceived level of CRT self-efficacy in cultural enrichment among teachers in the target school district?
- **RQ6-**To what extent do teachers' overall self-efficacy scores differ by teacher characteristics (i.e., years in teaching, years in the district, race/ethnicity, and certification type)?

Context of the Study

The present needs assessment research study focused on one small, urban school district in the United States Midwest region. The CRTSE scale was administered once in the spring of 2018 and again in 2021. In 2017-18, when this study began, this urban school district served approximately 1,100 students in Pre-K through 12th grade, and its student demographic was 96% African American, with 94% of students qualifying for free or reduced-price lunch. According to the state assessment, the school district had less than half of third-grade students reading at proficiency levels in the previous five years. Reading scores in grades four through eight were slightly higher, hovering around 50% on average, but were well below 70%, the state average.

Additionally, only about one-third of high school students in this district passed the state-mandated end-of-course exams on the first try, and the average ACT score was around 17, well below the state average of 21. The school district employed 52 teachers, and 45 of them

were full-time. The experience of the teaching staff ranged from approximately 30% first-year teachers to 15% of teachers with 20 years of experience or more. In the 2021 administration of the CRTSE scale, the district employed 51 teachers, all full-time. The demographics of the students remained consistent at around 96% African American. Although there had been some improvements to third-grade reading (improved to 80% pass rate), overall, the district scores still hovered below the state average on state assessments. Annually, the district turned over approximately 25% of its staff. An analysis of the staffing data for the two years of this research implementation showed that approximately 60% of the teachers employed were African American, 35% were Caucasian, and 5% identified as "other."

Theoretical Construct

Bandura's (1977) research regarding knowledge (e.g., knowledge of culturally responsive teaching) and action (e.g., implementation of culturally responsive teaching practices) are offset by a person's belief in their capabilities (i.e., self-efficacy) to put the acquired skills to use (Bandura, 1977). Bandura (1977) found the construct of self-efficacy beliefs to be a valid predictor of future behavior. Bandura's work became foundational to other researchers and teacher educators who rely on the construct's ability to predict future behavior to determine pre-service and in-service teachers' self-efficacy to execute various teaching tasks (Tschannen-Moran & Woolfolk-Hoy, 2001). Bandura (1977) espoused the theory that teachers' self-efficacy beliefs are related to the effort they invest in teaching, the goals they set, their persistence when things get complicated, and their resilience in the face of setbacks. Culturally Responsive Teaching Self-Efficacy (CRTSE) is an individual's belief in their capabilities to execute the practices associated with CRT (Siwatu, 2007). The CRTSE survey, through the domains of curriculum and use of instruction, classroom management, student assessment, and cultural enrichment, operationalizes behavioral tasks that correlate to self-efficacy (Siwatu,

2007; Bandura, 2006). The survey was designed to elicit responses from in-service teachers regarding their perceptions of self-efficacy to execute specific culturally responsive teaching tasks (Siwatu, 2009). Possessing efficacy leads to greater performance, which in turn leads to greater efficacy (Tschannen-Moran & Woolfolk-Hoy, 1998; Siwatu, 2007). For teachers to carry out the task of CRT, efficacy must be a priority.

Determining teachers' levels of CRTSE in a district that is over 90% African American and is underperforming regarding student proficiency levels in comparison to the state will provide important information regarding the need for a different approach to teaching. All teachers in this district, based primarily on the student population, may be open or aware that they may need to try a different pedagogical approach. Understanding teachers' perceived levels of CRTSE in this district may provide information for informing professional development in this district and may also apply to districts that serve a similar population.

Organization of the Dissertation

This dissertation is arranged into five chapters. The first is the introduction to the research that includes the research problem, the research purpose, the context of the study, research questions, a brief introduction to the research project, the theoretical construct, significance of the study, and this statement of the dissertation's organization. The second chapter contains the Conceptual Framework and includes the review of literature regarding Culturally Responsive Teaching, CRT and Teaching and Learning Outcomes, Teachers and CRT and Efficacy for CRT. The third chapter presents the methodology, research questions and research methods used in this study regarding CRTSE. This chapter also includes the data source, the measures, and the data gathered. The fourth chapter presents findings of the study and includes a summary of results for each research question and a post hoc analysis that

examines the results of the gathered data by year. The fifth chapter is a discussion of findings in the context of the existing evidence. It synthesizes the findings to discern the data's meaning for the school district in the study and considers whether and how those findings may lead to different teaching approaches and or professional development. Lastly, chapter five concludes with a recommendation for future practice, as well as recommendations for future research.

Chapter Summary

In this chapter, the problem of addressing the achievement needs of increasing minority populations in schools and teachers' preparedness to address learning differences. The purpose of the study outlined is to gather an understanding of the teachers' levels of Culturally Responsive Teaching Self Efficacy in the identified school district. The chapter also summarizes the research population, states the research questions, outlines the theoretical construct and the significance of the study.

CHAPTER TWO
Literature Review

CRT grew out of theoretical and empirical evidence linking students' culture to their academic success (Gay, 2002; Hilliard, 1995; Howard & Terry, 2011; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992; Villegas & Lucas, 2002). To understand CRT, one must be informed about how culture and social surroundings influence learning and development. Culture inherently affects learning, and it underscores the need for educational institutions to identify sources of support for teachers who seek to work with students' cultural differences more optimally (Gay, 2002; Hilliard, 1995; Howard & Terry, 2011; Irvine, 1990; Ladson-Billings, 1995a; Ogbu, 1992; Villegas & Lucas, 2002). These sources of support for teachers are necessary to enable them to take the culture of their students into account as they approach instruction. Enabling teachers to consider student culture when approaching instruction sits at the root of CRT.

This literature review begins with defining culture and CRT. It then progresses through a compilation of CRT and its components. It then traces the evolution of the definition and components through research. The literature review provides evidence supporting the performance effect attributed to CRT. The review then highlights the teachers' role in ensuring learning in culturally diverse classrooms and their limited preparation for this endeavor. The review concludes with the concept of self-efficacy for CRT. Understanding the levels of self efficacy with regard to CRT, in the target district, will, as this study proposes, inform professional development for teachers in the effort to improve their efficacy and to improve student outcomes.

Defining Culture

The concept of culture is not fixed or linear; rather, it represents one facet of the totality of a human experience. For this study, culture is defined as a "group's individual and collective ways of thinking, believing, and knowing which includes their shared experiences, consciousness, skills, values, forms of expression, social institutions, and behaviors" (Tillman, 2002). The understanding of culture and how it influences responses, interactions, and learning styles is essential to understanding student approaches to learning and the families that schools serve. Hofstede's (2001) foundational work categorized the countries of origin and matched them with cultural archetypes or common behaviors. He included Collectivism and Individualism in his work, and identified characteristics that reflected how brains are hardwired to function (Hofstede, Hofstede, & Minkov, 2010).

He determined that approximately 80% of the world operates within a collectivist culture and that only 20% of the world operates within an individualistic culture. It is important to recognize that in America, the dominant culture is individualistic; however, the culture of many students in America's public school systems are predominantly from collectivist communities (e.g., Black, Latino, Native American, Pacific Islander).

Hofstede's (2001) work defines Individualistic cultures as those that tend to prioritize independence and individual achievement. Their disposition is generally centered around self-reliance and the belief that one is supposed to take care of themselves to advance and are generally competitively driven (Hofstede, 2001). Collectivist cultures prioritize interdependence and group success. They value social and group dynamics with the belief that groups succeed together through collaboration and collective wisdom (Hofstede, 2001). Their disposition is based in relational and collaborative behaviors (Hofstede, 2001). Educators benefit their students

by acknowledging and understanding that cultural differences affect learning and use this knowledge to reach all learners.

Culturally Responsive Teaching: A Definition

CRT is defined herein as the acknowledgment and consideration of the relationship between culture and learning (Gay, 2000; Hilliard, 1995; Ladson-Billings, 1995a; Ogbu, 1992). It recognizes, honors and utilizes these cultural assets that students bring to school (Gay, 2000; Hilliard, 1995; Ladson-Billings, 1995a; Ogbu, 1992). They then use the cultural assets to to create environments and pedagogy to reach all learners (Gay, 2000; Hilliard, 1995; Ladson-Billings, 1995a; Ogbu, 1992). Three researchers have advanced frameworks that describe essential elements of instructional practices that are culturally responsive to culturally diverse students Ladson-Billings (1995), Gay (2000), and Villegas and Lucas (2002). Elements of these culturally responsive instructional practices are relevant to the dissertation study described in this document.

The Early Years: Woodson and Tate

Prompted by Woodson's (1933, 1990) call for an approach to equity in mathematics education, Tate (1995) sought to identify a pedagogical strategy to address this need. Woodson (1933, 1990) argued that mathematics education was built strictly on the thinking, experiences, and desires of Caucasians and is inappropriate for addressing the learning needs of African Americans. Woodson (1990) set out to bridge the gap in mathematical instructional strategies by identifying the strengths that African American students brought with them to class, such as collaboration, and building on that strength during instruction to help them acquire advanced math skills. In Tate's (1995) research, he attempted to identify a pedagogy appropriate for African American students. Over one year, Tate studied a teacher and her unconventional

approach to teaching mathematics to students in an urban area and found that her students scored well above their peer group on standardized assessments.

By situating the task in a problem in their community, the teacher immediately connected the students to a context with which they were familiar. She allowed the students to formulate their solutions, and she worked to bridge their academic weaknesses while building on their strengths. Students in this study focused on the problem of 13 liquor stores located within 1000 feet of their schools. Students found that to present their case to those that could help solve the solution, they needed to convey the information using charts that utilized decimals, fractions, and whole numbers. They also learned how to understand variables to convey their message adequately. This approach to teaching mathematics was more closely aligned with the needs and experiences of the students and led to a firmer grasp of mathematical concepts that translated into higher academic achievement (Tate, 1995). By identifying the strengths and weaknesses of curriculum designs and instructional materials and recognizing the importance of students and teachers becoming partners in learning, this teacher embodied the earliest tenets of cultural relevance (Tate, 1995). Culturally Relevant Teaching (CRT), embodies three criteria: an ability to develop students academically, willingness to nurture and support cultural competence, and the development of sociopolitical or critical consciousness (Gay, 2000) which are characterized by Tate in the study (1995).

Tate (1995) found that teachers who used community issues as a framework for improving math proficiency increased student engagement and improved learning outcomes due to this approach. The researcher also noted that the participants had a higher interest in math problem solving and increased class participation. Although the study falls short of demonstrating long-term math outcomes for students, it does demonstrate increased levels of

involvement, interest, and relevance in math among students that had previously been disengaged and struggling in this subject. Tate's study opened the door to building new culturally-based pedagogical approaches.

Ladson-Billings Framework

Ladson-Billings (1995a) identified that incorporating research-based strategies proved effective when educating African-American students. Her research was one of the pioneering studies that began to define the tenets present within the classroom and teaching styles that consistently produced high academically performing African-American students (Ogbu, 1992). Ladson-Billings (1995a) research highlighted consistently effective practices in reaching African-American learners and propelling them toward academic and socio-emotional success. She identified three criteria that all classrooms had in common: an ability to develop students academically, a willingness to nurture and support cultural competence or the ability to support and interact with people from cultures or beliefs other than one's own, and sociopolitical or critical consciousness (Ladson-Billings, 1995a). These elements would become CRT's early framework.

In one study to test her framework, Ladson-Billings (1995a) selected classrooms in a small, low-performing school district of approximately 3,000 students in Northern California. The schools were predominantly low-income elementary schools that served predominantly African American students. The teachers that participated in this study had teaching experience ranging from 12 to 40 years, and the classrooms were in different schools throughout the district. Eight teachers participated in the four phases of this study; five were African American and three were Caucasian. The four phases included, ethnographic interviews, classroom observations,

videotaping segments from their classroom activities and lastly, participants reviewed and analyzed each other's recordings and provided feedback.

Ladson-Billings (1995) found that participants demonstrated cultural competence by offering a nurturing and supporting classroom. Further, her results indicated that teachers should value diversity, acknowledge the dynamics inherent in cross-cultural interactions, develop a capacity for cultural self-assessment, and develop an adaptation for instruction that reflects an understanding of the diversity between cultures.

Ladson-Billings identified these qualities and strategies in multiple schools and settings across multiple classrooms. These core qualities and strategies were the drivers for advancing the educational outcomes both in terms of academic achievement and behavior of African-American students (Ladson-Billings, 1995; Ladson-Billings, 2000; Ladson-Billings, 2004). She referred to such strategies and approaches that were effective when teaching culturally diverse students as Culturally Relevant Pedagogy. Ladson-Billings (1995a) further defined Culturally Relevant Pedagogy as "an approach that empowers students intellectually, socially, emotionally and politically by using cultural references to impart knowledge, skills, and attitudes" (p. 483). She identified strategies based on a subset of four behaviors: (a) acknowledging one's own cultural identity; (b) discussing the cultural diversity of students comfortably and respectfully; (c) exhibiting self-efficacy when working with culturally diverse students; and (d) seeing themselves as part of the community (Ladson-Billings, 1995a).

In a recent editorial from Ladson-Billings published in *The Educational Forum,* she states that "culturally relevant/sustaining/revitalizing/reality pedagogies are there to cultivate students' voices, entrepreneurial inclinations, and inventive spirits" (Ladson-Billings, 2021, p. 352). She further asserts that the base of culturally responsive pedagogies is to open up for

students a world of possibilities and to encourage them to bring their whole selves to the classroom and beyond (Ladson-Billings, 2021).

Gay's Framework

In 2000, researcher Geneva Gay expanded the reach of Culturally Relevant Pedagogy by creating Culturally Relevant Teaching (CRT), an approach defined by three criteria: an ability to develop students academically, willingness to nurture and support cultural competence, and the development of sociopolitical or critical consciousness. CRT acknowledges equity issues and encourages teachers and students to view themselves as agents of change to interrogate the world around them (Howard, 2010). Gay (2000) asserted that CRT uses the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning more relevant to and effective for students.

Gay (2000) defined CRT as using ethnically diverse students' cultural characteristics, experiences, and perspectives as conduits for learning. She identified CRT as an acknowledgement of the legitimacy of the cultural heritage of different ethnic groups, both as legacies that affect students' dispositions, attitudes, and approaches to learning as worthy content to be taught in a formal curriculum. In addition, CRT builds bridges of meaningfulness between home and school experiences and between academic abstractions and lived sociocultural realities. She further declares that it uses various instructional strategies connected to different learning styles and teaches students to know and praise their own and each other's cultural heritage. Lastly, in Gay's (2000) definition, CRT incorporates multicultural information, resources, and materials in all subjects and skills routinely taught in schools.

Gay (2000) further determined that in order for teachers to pick up the mantle of CRT that they must acknowledged that multicultural education and educational equity and excellence

are deeply interconnected. Teachers must accept that their accountability involves being more self-conscious, critical, and analytical of one's own teaching beliefs and behaviors and that they need to develop more profound knowledge and consciousness about what to teach, how to teach, and to whom they are teaching. Teachers must be able to critically examine their content and recognize their own biases, attitudes, and practices (Montgomery, 2011). From there, teachers must be able to examine their strengths and weaknesses in curriculum design and instructional materials and be prepared to adjust accordingly (Gay, 2002). Teachers must also recognize the power of curricula (e.g., formal, symbolic, media/societal) as an instrument of teaching and use them to help convey important information, values, and actions about ethnic and cultural diversity (Brown, 2007).

Gay (2013) furthered her research by adding that CRT, in its effort to address the underachievement of students of color, directly contradicts beliefs that govern how the design of educational programs and practices does not speak directly to the needs of these students. Instead, she posits that the use of CRT agrees to the acceptance of differences amongst ethnic groups, individuals, and cultures as normative to the human condition and is also valuable to societal and personal development (Gay, 2013). Gay emphasizes that teaching practices in idea and action should emphasize localism and contextual specificity, or sociocultural in nature. Teaching practices should be specific to the sociocultural settings in which they occur and specific to the population they serve (Gay, 2013).

Gay (2013) offers fundamental guidance in addressing culture and cultural differences of teachers and their students through CRT. First, one must acknowledge that culture and difference are natural attributes of humanity and, therefore, should be normative features of teaching and learning. She furthers by declaring that since attitudes and beliefs about ethnic,

racial and cultural diversity shape instructional behaviors, they need to be more positive and constructive to produce better teaching and learning for culturally, racially, and ethnically diverse students (Gay, 2013). She also acknowledges that some resistance to culturally responsive teaching should be expected, understood and resisted. Lastly she asserts that the underlying values and beliefs of CRT such as equality, justice, and diversity are compatible with the democratic ideals of the United States, and that the viability and validity of CRT will increase when connections between it and other routine responsibilities and functions of teaching are made explicit (Gay, 2013).

Villegas and Lucas Framework

Guided by the frameworks developed by Gay (2000) and Ladson-Billings (1995a), Villegas and Lucas (2002) wanted to gain a better understanding of what qualities or behaviors a culturally responsive teacher would need to ensure all students are successful. They identified six characteristics that provide a framework for a teacher to develop a vision of teaching and learning with a diverse student population. The first characteristic is sociocultural consciousness, which understands the influence on one's way of thinking, behaving, and being by race, ethnicity, social class, and language. For example, students may instinctively limit responses to teachers in the classroom, not out of disrespect, but due to limited conversations in their home or community with authority figures. The second characteristic highlights an affirming attitude toward students from culturally diverse backgrounds. This significantly impacts a student's learning, self-confidence, and academic performance. For example, such an attitude includes recognizing that students may have limited resources or time to engage in prolonged or labor-intensive homework assignments and providing opportunities to complete homework assignments in other ways.

Commitment and skills to act as agents of change are the third characteristic. This characteristic enables the prospective teacher to confront barriers or obstacles to change and develop collaboration skills and deal with challenges. For example, recognition from teachers that getting to and from school may involve passing through unsafe areas or may involve unconventional modes of transportation, therefore, contributing to tardiness or absenteeism.

The fourth characteristic pertains to constructivist views of learning. All students are capable of learning, and teachers must provide scaffolds between what students already know through their experiences and what they need to learn (Vygotsky, 1986). For example, such a view requires recognizing that experiences and not necessarily cognitive ability may limit students. Exposing students to literature that they can identify with and literature that expands their horizons could bridge this gap.

The act of learning about students is the fifth characteristic. This characteristic draws on past experiences and home and community culture. For example, this characteristic might take the form of understanding that one's notion of family is not always the student's reality. By recognizing that families are different, teachers welcome children and their experiences with family into the classroom.

Last, the sixth characteristic focuses on CRT practices, supporting the constructivist view of knowledge, teaching, and learning. For example, such support might be recognizing that children build their knowledge based on their own experiences and may be different from the teacher's experiences, therefore, potentially making the outcome different.

The above qualities serve as a framework and not a prescription for the culturally responsive teacher. They represent conceptual strands interwoven into the framework of teacher preparation, coursework, and daily instruction (Village & Lucas, 2002). Like Gay (2010),

Villegas and Lucas (2002) used the lens of social constructivism in acknowledging that education is not passive; instead, it is an active process in which students take responsibility for their learning (Vygotsky, 1986). They contended that effective learning inherently unfolds in the direction of culturally appropriate practice. People in a given setting construct their reality, beliefs, and behaviors based on those they interact with (Gay, 2010). This approach assists students in constructing knowledge, building on their personal and cultural strengths, and examining the curriculum from multiple perspectives. This framework emphasizes the sociocultural aspect of instruction and education (Village & Lucas, 2002).

The combination of these frameworks collectively advance CRT as an approach that acknowledges, values and utilizes cultural backgrounds as a way to improve teaching of students from diverse backgrounds. CRT requires the teacher to examine their own cultural background while caring enough to learn the cultural backgrounds of their students. The collective frameworks assert that those committed to improving outcomes for all students will commit to studying their own approach to instruction, their choices of curricula and resources, and question how they assess student learning. Only through these practices can CRT effectively begin to support improved outcomes for students.

Culturally Responsive Teaching and Learning Outcomes

Past the seminal work Ladson-Billings(1995a), Gay (2001) and Villegas and Lucas (2002), there are now more recent studies regarding the use of CRT and Culturally Responsive practices to improve learning outcomes. These studies have taken place in small, controlled settings and on a large national scale. Their evidence highlights how culturally diverse students have opportunities to engage in instruction that acknowledges the legitimacy of their cultural heritage; incorporates culturally responsive resources, assessments, and interactions; and holds them to a high academic standard. This researcher's position is that Culturally Responsive

Teaching is an effective way to mitigate low academic achievement in low-performing African American and Hispanic students (Ladson-Billings, 1995; Gay, 2002; Villegas & Lucas, 2007).

Student outcomes with CRT. In studies of two nationwide programs AVID (Advancement via Individual Determination) and GEAR Up (Gaining Early Awareness and Readiness for Undergraduate programs), Howard and Terry (2011) identified these programs as exemplifying the tenets of CRT. These programs' purpose was to increase student academic performance expectations and provide a school wide support system for students and their families to reduce the achievement gap. The AVID program aspires to foster positive attitudes about school and higher education, helping students become more knowledgeable about college, developing study skills and supporting students in and encouraging them to take honors and advanced placement courses (Llamas, Lopez, & Quirk, 2014). GEAR Up is a high school program that focuses on students from historically underrepresented groups that may have less college knowledge. GEAR Up programs provide support for public schools to address the college knowledge gap; they aim to build college readiness pathways for students who lack adequate home and school resources to help them effectively transition to and succeed in college (Sanchez et al., 2018).

Both AVID and GEAR Up operationalize Gay's (2000) conceptualization of caring is one of the major pedagogical pillars for working with ethnically diverse students. Care exists in the form of teacher attitudes, expectations, and behaviors about students' human value, intellectual capability, and performance responsibilities (Gay, 2000). The research for these programs was grounded in an urban California school district that was heavily minority populated with low student achievement and low graduation rates.

Through the setting of high expectations, scaffolding support for students with the goal of

achieving at high levels and creating an environment that allows students and teachers to connect, the high school was able to increase the percentage of students taking advanced level courses. These components of AVID and GEAR Up integrate the tenets of CRT as outlined by the seminal work of Ladson-Billings (1995), Gay (2002), and Villegas and Lucas (2002) by creating learning environments and expectations that honor the students' culture, expect rigorous work, and affirm sociocultural consciousness (Ladson-Billings, 1995; Gay, 2002; Villegas & Lucas, 2002). The percentage of 10th graders taking geometry increased from 23% to 65% over two years. There was also an increase in students enrolling in advanced placement courses (Howard & Terry, 2011).

Students who participated in GEAR Up, which began with a group of children in middle school and continued until their senior year, passed the California High School Exit Exam at 85%. They were a part of the largest graduating class in more than a decade at the school, increasing 25% from the year before. As demonstrated in these studies, the effects on learning and student outcomes show that CRT is an approach that can make a difference for culturally diverse students.

In a smaller study, Nasir (2008) utilized both qualitative and quantitative measures to demonstrate the use of cultural practices to improve learning and found the relationship between basketball and schooling to be influential in an area of mathematics proficiency for African American adolescents. With 16 high school basketball players, 18 middle school basketball players, and 16 students not involved in basketball as participants. She observed the players for one five-month season and embedded statistical analysis into conversations with math instruction that used the context of basketball. The intervention yielded improved interest, focus and outcomes through observations and student work. When given 20 problems in two analogous sets in basketball statistic formats and the other in typical school formats, the

basketball players at both the middle and high school levels performed better than their peers. By engaging the cultural context of basketball, the researcher could demonstrate students were able to better grasp the mathematical concept of statistics at a higher rate than their counterparts.

This small but informative study speaks to the tenets of Culturally Responsive Teaching. It acknowledges the legitimacy of the cultural heritage of different ethnic groups, both as legacies that affect students' dispositions, attitudes, and approaches to learning and as worthy content in a formal curriculum.

Other small-scale studies also demonstrate the improvement of student outcomes through the use of CRT. Those studies include the following; Lee posits that teachers can improve student interest in learning and student outcomes through acknowledging student home language and connecting it to instruction. The Cultural Modeling framework (Lee, 2006, 2003; Lee et al., 2003) helps to design robust learning environments that leverage the everyday knowledge of culturally diverse students. The study supported subject matter-specific learning by connecting it to student's everyday home language (primarily African American). Lee (2006) found in a study of four English classes, two taught traditionally, and two taught through the use of Cultural Modeling (Lee, 1991, 2003; Lee et al., 2003), that from pretest to post-test the Cultural Modeling students gained over twice as much as the traditionally taught students (Lee, 2006).

Enyedy et al. (2011), posited Culturally Relevant Pedagogy (CRP) to promote successful engagement of underrepresented groups in mathematics classrooms. Their position was to counter the claims that CRP risked essentializing students or watering down academic content. Their analysis consisted of a case study of three sixth-grade students who took part in a 6-week mathematics curriculum that used geographical information system (GIS) maps to engage

students in designing personally meaningful research projects while learning about measures of central tendency (i.e., learning statistics). They selected a case study to represent how 47 students successfully navigated the curriculum in this urban classroom. While successful, the intervention highlights the kinds of negotiations that students engaged in with each other, the teacher, and the curriculum as they constructed their meaning of relevance. Outcomes included increased participation, motivation and improved learning. It demonstrated that by allowing students to utilize their prior knowledge, teachers could apply necessary learning standards to instruction to help students succeed (Enyedy et al., 2011).

Through a qualitative study, Hilaski (2020) explored how four Reading Recovery teachers attempted to make their Reading Recovery instruction culturally responsive for their culturally and linguistically diverse students. Participating teachers found ways to utilize students' social, cultural, and linguistic knowledge to establish a connection between the familiar and new to make learning to read and write easier for their students who became more engaged and responsive to instruction. Through constant comparative analysis of data collected through pre and post-tests biweekly, PD sessions, debriefs, reflective journals and artifacts, the teachers' practices shifted in three main ways: observation, conversation and instruction (Hilaski, 2020). Once teachers regarded students as central to their teaching practices, they began to be more intentional about planning instruction that supported improved learning for students (Hilaski, 2020).

Stevenson and Huffing (2021) examined the effects of culturally responsive pedagogical approaches in the development of scientific vocabulary and conceptual knowledge among middle-grade students during a summer program. They designed and implemented a literacy-enriched STEM instructional unit of study using the background experiences of

Latina/Latino migrant farmworkers' children to expand their STEM literacy skills and knowledge. The unit aimed to increase the students' science knowledge and skills; strengthen their mathematical abilities; enhance their ability to use technology for research; and improve their academic vocabulary, language, and writing skills. It also had an objective to explore the students' self-perceptions regarding science learning. The study included qualitative and quantitative data collected from the students' pre-and post-surveys, pre-and post-tests, assignments, and group interviews. The results demonstrated significant improvements in the students' vocabulary and conceptual understandings. The students developed an awareness of science, math, technology, and literacy with their background experiences, expanded their interest in science, and increased their ability to write effectively about STEM topics (Stevenson & Huffing, 2021). These results also highlighted the significance of connecting STEM instruction with background knowledge and possible careers via out-of-school efforts like this program to increase culturally diverse students' interest in pursuing STEM careers (Stevenson & Huffing, 2021).

These studies suggest that school programs designed with CRT in mind have demonstrated some effectiveness with regard to student academic performance. The studies also show that instructional practices based on CRT have shown some effectiveness at motivating and engaging students, which is believed to be an antecedent to student learning. Lastly, there was evidence of improved student performance outcomes in specific content areas as a result of teachers utilizing tenets of CRT.

Teachers and CRT

The beliefs that teachers bring to the classroom significantly influence their instructional practices (Milner, 2011; Polat et al., 2019). Teacher education programs have not generally

prepared educators to reach diverse populations (Ladson-Billings, 1995; Gay, 2000; Siwatu, 2007). It is important to acknowledge that the student population is quickly changing and teachers are the vehicle through which education is facilitated (Ladson-Billings, 1995; Milner, 2011; Siwatu, 2007). The U.S. teacher population is 80% white female while the student population in public schools is approaching 60% non-white (NCES, 2020). Preparing teachers for the future classroom is paramount for the improvement of student outcomes.

Ladson-Billings (1998) speaks to the necessity of teachers possessing self-efficacy when working with culturally diverse students as well as to the importance of teachers seeing themselves as part of the community (Ladson-Billings,1998). If the extant literature supporting CRT demonstrates that addressing the needs of a diverse student population hinges on a teacher's ability to be self-aware and to recognize their own cultural identities, strengths, and shortcomings (Ladson-Billings, 1994,1995, 1998; May & Day, 2012), then why are we not focusing on building efficacy for CRT in current teachers ?

Studies regarding Culturally Responsive Teaching Self Efficacy are scarce but do exist. The current literature primarily focuses on pre-service teachers and identifies ways to improve teacher education programs. Siwatu (2007) conducted a study utilizing the Culturally Responsive Teaching Self Efficacy scale and the Culturally Responsive Teaching Outcome Expectancy scale to survey a sample of pre-service teachers (N=275). The purpose of the study was to determine (1) are teachers efficacious in their ability to execute practices of CT, and (2) do they believe in the positive outcomes associated with this pedagogical approach (Siwatu, 2007). The findings suggest that pre-service teachers felt most efficacious in building teacher-student relationships and that they were least efficacious in greeting students in their home languages. The research was used to design efficacy-building interventions in teacher preparation programs.

Siwatu (2011) in a mixed methods research study surveyed 192 pre-service teachers' culturally responsive teaching self-efficacy beliefs. Through a self-administered survey and a follow-up interview with particular participants, Siwatu utilized the data gathered to determine the types of culturally responsive teaching self-efficacy forming encounters the teachers experienced in their teacher education programs. The findings identify areas that teacher preparation faculty should expose and prepare teachers who are efficacious in this area (Siwatu, 2011).

In a pre-experimental study of preservice practitioners' professional dispositions, Fitchett, Starker, and Salyers (2012) examined the relationship between an innovative culturally responsive teaching model in a social studies methods course and 20 teacher candidates' the teachers' reported culturally responsive teaching self-efficacy. They reported that preservice teachers exposed to an in-depth culturally responsive teaching epistemology were more confident in their ability to employ culturally relevant teaching practices. Participants noted an increased willingness to work in diverse communities. Preservice teachers were more efficacious in their abilities to teach multicultural social studies content. Their study suggests that a comprehensive, culturally responsive, social studies methods course inspired efficacious attitudes toward teaching diverse learners and content (Fitchett et al., 2012).

In another study, three urban school districts in the Southwest, Chu and Garcia (2014) participated in a survey of 344 special education teachers to examine how perceptions of teacher preparation related to self-efficacy with Culturally Responsive Instruction (CRI). They also collected data regarding what personal characteristics, teaching assignments, and teacher preparation predicted self-efficacy. Their results showed that perceptions of teacher preparation for diversity and personal characteristics were related to teachers' self-efficacy for CRI.

Specifically, teachers' CRTSE scores were significantly associated with their perceptions of their pre-service preparation to work in culturally and linguistically diverse settings and with the effectiveness of their in-service professional development experiences. Teachers' language characteristics, instructional setting, certification in bilingual education/English as a second language, and perceived quality of professional preparation also emerged as significant predictors. Notably, identification as non-white and the ability to speak more than one language were significantly related to higher self-efficacy for CRI (Chu & Garcia, 2014).

These studies demonstrate that teachers have been historically unprepared to teach diverse students in ways that have demonstrated increased relevancy, participation, and outcomes. Intentional preparation of teachers to address the specific needs of culturally diverse students will assist in developing self-efficacy which will support their ability to effectively utilize CRT.

Efficacy for Culturally Responsive Teaching

Culturally Responsive Teaching can be a valuable instructional framework if teachers possess the efficacy to apply it (Ladson-Billings, 1995a). Teacher efficacy is significantly related to student achievement (Tschannen-Moran & Woolfolk Hoy, 1998). Teacher efficacy also contributes to shaping students' attitudes and perceptions towards school and learning and influences the teachers' classroom behaviors, their openness to learning new ideas and their attitudes towards teaching (Tschannen-Moran & Woolfolk Hoy, 1998).

According to Bandura's (1977, 2002) social cognitive theory, self-efficacy beliefs refer to an individual's beliefs about their capabilities to successfully carry out a particular course of action. A teacher's confidence in their ability to carry out tasks related to an academic context is

known as Teacher Efficacy. This concept plays an essential role in outcomes for teachers and students (Tschannen-Moran & Woolfolk Hoy, 1998).

Bandura (2012) posits that the sources of peoples' self-efficacy beliefs develop through the following four behaviors.T he first is through Mastery experiences. Bandura (2012) believed that if people only experience easy success, they become discouraged by setbacks. People must build resilience by learning to manage failure to learn from their missteps. Social modeling/vicarious experiences is the next behavior. Bandura (2012) believed that by seeing others in similar situations overcome a situation promotes confidence and belief in one's capabilities. Bandura (2012) also identified social persuasion as a behavior. If people believe in themselves and others support that belief, they are more likely to persevere in the face of difficulties. Lastly, Bandura (2012) believed that physical and emotional states are affected in that efficacy beliefs increase when anxiety and depression decrease; therefore, the building of physical strength encourages stamina to support perseverance.

Culturally Responsive Teaching Self Efficacy (CRTSE) focuses on teachers' beliefs in their ability to engage in practices that demonstrate cultural responsiveness (Siwatu, 2007). These practices use students' cultural knowledge and experiences, incorporate students' cultural backgrounds to design compatible classroom environments, provide students with multiple ways to demonstrate learning, and allow multiple modes of assessment. It equips students with the knowledge and skills to function in mainstream society while maintaining their cultural identity (Ladson-Billings, 1995). According to Siwatu (2007), CRT practices are categorized into the following four domains: (a) curriculum and instruction: the use of students' cultural knowledge and prior experiences to enhance the reciprocal process of teaching and learning; (b) classroom management: the facilitation of a classroom environment that values the unique cultural

background of all students; (c) student assessment: the use of various assignments to assess student learning; and (d) cultural enrichment and competence: the promotion of knowledge and skills necessary for success in a pluralistic society and the affirmation of different cultures and languages (Siwatu, 2007).

Although teaching efficacy is a proven attribute of successful teachers, few studies measure how self efficacy influences culturally responsive teaching practices. CRT is an approach that benefits students from culturally and linguistically diverse backgrounds. Currently there is a gap in the research concerning the assessment of CRTSE in practicing teachers specifically across a single district. Understanding the levels of efficacy regarding CRT in this district will enable the leadership to target specific areas of improvement and develop strategies to build efficacy and ultimately improve academic outcomes.

Chapter Summary

In this chapter culture and CRT are defined. It outlined frameworks for Culturally Responsive practices that empirical research has demonstrated as being responsive to the culture of culturally diverse students were outlined. Next, the literature review provided evidence supporting the use of CRT to improve student outcomes. It then highlights the role that teachers play in ensuring learning in culturally diverse classrooms and their limited preparation for this endeavor. The review introduces self efficacy and the concept of self efficacy for CRT and lastly makes the case for the current study.

CHAPTER THREE

Research Methods

The focus of this study was to measure teacher efficacy for using CRT in the classroom. According to Bandura (1997), efficacy is a psychological source of effective performances, making it a vital state to indicate the teacher's capacity to effectively organize learning consistent with a student's culture. There were six research questions for the study that seek to identify teachers' self-reported levels of efficacy for CRT. The specific questions included:

1. **RQ1-**What is the perceived overall level of CRT self-efficacy among teachers in the target school district?
2. **RQ2-**What is the perceived level of CRT self-efficacy in curriculum and instruction among teachers in the target school district?
3. **RQ3-**What is the perceived level of CRT self-efficacy in classroom management among teachers in the target school district?
4. **RQ4-**What is the perceived level of CRT self-efficacy in student assessment among teachers in the target school district?
5. **RQ5-**What is the perceived level of CRT self-efficacy in cultural enrichment among teachers in the target school district?
6. **RQ6-**To what extent do teacher's overall self-efficacy scores differ by teacher characteristics (i.e., years in teaching, years in the district, race/ethnicity, and certification type)?

District settings

The targeted urban school district in the Midwest district conducted a needs assessment utilizing the CRTSE scale that focused on identifying gaps and determining how to bridge them between where teachers are and where the district wanted them to be with CRT. This needs assessment was preceded by convening a group of stakeholders to draft a strategic plan in 2016. This plan identified goals regarding; 1) culturally responsive standards-aligned instruction; 2) strong relationships with families; 3) effective teachers for every student; and 4) data-driven continuous improvement, all of which align with the tenets of Culturally Responsive Teaching.

The district serves approximately 1100 students in grades Pre-K through 12th grade. The demographics of the district's students included 5% Caucasian, 93% Black, and 2% Hispanic. According to 2010 U.S. Census Data, the poverty rate for the district community was 26%. The population for the district in 2020 is 3% Caucasian, 90% Black, and 7% Hispanic, and the district community poverty rate is 30%. During the 2017-18 school year, the first administration of the CRTSE scale, 92% of the students were eligible for free/reduced lunch. Most of the high school students, 82%, completed a college-bound curriculum as outlined by the State Department of Education. During the 2020-21 school year, the second administration of the CRTSE scale, 86% of the students were eligible for free/reduced lunch. Most of the high school students, 85%, completed a college-bound curriculum as outlined by the State Department of Education, and the district served just under one thousand students.

Participants

The participants in this study were classroom teachers in a small midwestern, predominantly African American school district that serves students in Pre-K-12th grade. The district has three individual schools: an elementary school, a middle school, and a high school.

Participants identified themselves based on specific characteristics. The characteristics were: 1) years in teaching; 2) years in the district; 3) race/ethnicity; and 4) certification levels. The demographic data below in Table (3.1) represents the discernable identities of the survey participants. The table identifies the years of administration of the needs assessment, the number of participants in each year of the survey administration, the participant's number of years in teaching for, the participant's number of years teaching in the specific district, the participant's race/ethnicity and the certification level of the participants.

Table 3.1
Participants

Years Administered		'18		'21
Total Number of Participants		n=35		n=45
Years in Teaching	1-5 Years	16	1-5 Years	23
	6-10 Years	4	6-10 Years	11
	11-15 Years	7	11-15 Years	3
	Over 15 Years	8	Over 15 Years	8
Years in District	1-5 Years	22	1-5 Years	37
	6-10 Years	4	6-10 Years	3
	11-15 Years	4	11-15 Years	2
	Over 15 Years	5	Over 15 Years	3

Year		‘18		‘21
Race/Ethnicity	Black	25	Black	25
	Caucasian	9	Caucasian	14
	Hispanic	0	Hispanic	3
	Native/Pacific	1	Native/Pacific	1
	Two or more races	0	Two or more races	3
Certification Level	Elementary	10	Elementary	17
	Middle	6	Middle	10
	High School	15	High School	13
	None	4	None	5

Data Collection

The first data collection was in the Spring of 2018. The researcher solicited voluntary involvement from teachers via permission from the board President. The researcher administered the CRTSE Scale to teachers in the selected school district via paper surveys dispensed and collected anonymously through the school office. The individual sealed envelope contained a letter describing the intention of the information and requested their voluntary completion of the survey. All surveys were dispensed and returned to the office managers in sealed envelopes. The office manager in each of the three schools provided the survey to all classroom teachers (N=67). Of the sixty-seven surveys dispensed, participants returned forty completed, five were incomplete, and twenty-two did not return.

The second data collection occurred in the Spring of 2021. The researcher again solicited voluntary involvement from teachers via permission from the board President. The researcher administered the second survey using a Google Form, an online survey tool. Potential participants received the survey via email and a letter explaining the intended use of the data and requesting their voluntary participation. The survey did not require participants to identify themselves for the responses. A district-level employee emailed the survey to all classroom teachers in each of the three schools (N=57). The district employee collected the survey data and provided it to the researcher. Of the fifty-seven surveys, participants completed and returned forty-seven, two were not complete and ten were unreturned.

Measures

The Culturally Responsive Teaching Self Efficacy (CRTSE) scale was used for the needs assessment(Siwatu, 2007). The scale measures teacher efficacy for four distinct domains: Curriculum and Use of Instruction, Classroom Management, Student Assessment and Cultural Enrichment and Competence. Teachers indicated their confidence with item specific tasks on a five-point Likert scale with responses ranging from 1, no confidence to 5, completely confident. Sample items include questions like: I am able to identify the diverse needs of my students and I use a learning preference inventory to gather data about how my students like to learn.

The CRTSE Scale (Siwatu, 2007), was used to gather a baseline to identify aspects of CRT that current teachers feel most and least efficacious. Specific questions fall into four domains: Curriculum and Use of Instruction, Classroom Management, Student Assessment, and Cultural Enrichment and Competence (Siwatu, 2007). Table (3.2) presents the question numbers and the measured domains they respond to on the scale.

Table 3.2

Four Domains of the Culturally Responsive Teaching Scale

Domain	Question
Curriculum and Use of Instruction	1,2,11,12,13,14,17,18,27,28,29,30,34,35,37, 38,40
Classroom Management	3,4,8,9,10,15,16,19,20,22,24,25,26,31,32,39
Student Assessment	7,21,23,33
Cultural Enrichment and Competence	5,6,36,41

Table 3.2 Represents the four domains of the CRTSE scale and the corresponding question

Evidence of Measure Reliability

The Cronbach alpha test of internal reliability (Table 3.3) for the Culturally Responsive Teaching scale (CRTSE) and its subcategories dataset in 2018, measured at 0.9426, indicating the items in the scale are somewhat conceptually related to each other. Therefore, it was an appropriate measure of CRTSE and Subcategories for analysis.

Table 3.3

Cronbach's Alpha of Internal Reliability '18

Parameter	Measure
Average interitem covariance	.2393159
Number of choices in the scale	5
Scale reliability coefficient	0.9426

Test scale = mean (unstandardized items)

Cronbach alpha test of internal reliability (Table 3.4) for the Culturally Responsive Teaching scale (CRTSE) and its subcategories dataset in 2021, measured at 0.9545, indicating the items in the scale are somewhat conceptually related to each other. Therefore, it was an appropriate measure of CRTSE and Subcategories for analysis.

Table 3.4

Cronbach's Alpha of Internal Reliability '21

Parameter	Measure
Average interitem covariance	.3567163
Number of choices in the scale	5
Scale reliability coefficient	0. 9545

Test scale = mean (unstandardized items)

Data Analysis

The data were analyzed using SPSS version 23. The data analysis included descriptive statistics and one-way ANOVAs. Before conducting statistical analysis, the researcher screened the dataset for missing values and outliers. The researcher removed participants (n=5 in '18; n=2 in '21), missing more than 50% of the survey responses from the dataset. Composite scores were calculated by summing all the items on the respective subscales of the CRTSE. The researcher removed outliers (n=0) from the dataset to mitigate their potential to skew the mean sample scores. Standardized scores, or z scores, were calculated for the continuous variables. The researcher conducted a reliability analysis by calculating Cronbach's alpha as an internal reliability test.

To address research questions one through five, the researcher conducted descriptive statistics. The researcher calculated frequencies and used percentages to report the participants in each self-efficacy category and the sample portion they comprise. In the analysis, the self-efficacy scale levels were (i.e., no confidence, moderate confidence, and high confidence). A full report of the scale is in Chapter 5 for the overall CRTSE score (RQ1). An explanation of the four subscales of the CRTSE (RQ2-RQ5) is also present in the chapter.

To address research question six (RQ6), the researcher conducted four one-way ANOVAs. ANOVA is the appropriate analysis when the intent is to assess differences in a continuous dependent variable (i.e., overall self-efficacy score) and a categorical independent variable (i.e., years in teaching, years in the district, race/ethnicity, and certification type). The ANOVA uses the F-test, which represents the ratio of the independent variance estimates of the same population variance (Pagano, 2010). The F-test allowed overall comparisons on whether group means differ. The researcher must reject the null hypothesis if the obtained F statistic is larger than the critical F statistic. The researcher also assessed the assumptions of normality and homogeneity of variance/covariance matrices. The researcher used the Kolmogorov-Smirnov test to determine whether the sample data was drawn from a normally distributed population and assumed that scores fall in a symmetrical, bell-shaped distribution. Next, the researcher also assessed the homogeneity of variance, which assumes that groups have equal error variances using Levene's Test (Tabachnick & Fidell, 2012).

Limitations of the Study

The claims in this study are limited to the specific teachers in the district and shouldn't be used to generalize outcomes. The results reported are only for the understanding of efficacy levels and cannot necessarily contribute to or be attributed to strategies or practices regarding

specific areas of Culturally Responsive Teaching. The study presented also does not address the current or future use of Culturally Responsive Teaching in classrooms in the district. There are also limitations with self-report surveys and potential measurement errors associated with self-report surveys. Participants in self report surveys may view the survey as impression management as opposed to an opportunity to reveal their true behaviors (Brenner & DeLamater, 2016). Answers may reflect more about their ideal self or who the respondents desire especially in regards to normative or expected behaviors (Brenner & DeLamater, 2016).

Chapter Summary

This chapter identifies the research questions, the participants in the research study, the research instrument, the district context and explains the data collection. The chapter also explains the measures, data analysis, internal reliability and validity and the limitations of the study.

CHAPTER FOUR

Results

This chapter reports results for each research question. Results are presented for data collected in 2018 and 2021. The two time periods describe the average teacher efficacy for CRT and changes in beliefs over a 3 year period. Changes in average efficacy are not growth scores though because the sample of teachers has all changed during these years.

Research Question 1: What is the perceived overall level of CRT self-efficacy among teachers in the target school district?

Table (4.1) reports results for the total CRTSE overall and by each instructional domain. Teachers' overall self-efficacy in 2018 had an average mean of 3.8, with 61.8% of the teachers reaching the efficacy threshold of mostly or completely confident. In 2021, 4.17 was the average self efficacy score, with 81% of the teachers reaching the self-efficacy threshold. For the domain curriculum and instruction in 2018, teachers reported a mean of 3.85, with 59.2% of teachers feeling efficacious. In 2021, the mean was 4.1 with 79.4% of the teachers reaching the efficacy threshold. Teachers reported classroom management efficacy was a mean of 3.9 with 66.2% of the teachers in 2018, and in 2021, the classroom management mean was 4.24, with 83.5% of the teachers reaching the threshold. In the domain of student assessment, the mean was 3.75 with 60.4% of the teachers reported being efficacious in 2018. In 2021 the student assessment mean was 4.15, with 78.2% of the teachers reaching the threshold.

In cultural enrichment, the mean 3.76 with 60.9% of the teachers reported efficacy. In 2021, the mean was 4.22, with 83% of the teachers reaching the threshold.

Teacher efficacy for CRT was higher in 2021 compared to 2018. This was the case for average scores and the percent of teachers in the efficacy categories. Efficacy for each instructional domain was better. Not revealed in these data were teacher perceptions for specific instructional practices. Research questions 2,3,4 and 5 provide this evidence.

Table 4.1

Self-efficacy for Culturally Responsive Teachers

	Mean ’18	% Efficacy ’18	Mean ’21	% Efficacy ’21
Self-efficacy for Teachers	3.8	61.8%	4.17	81%
Curriculum and Instruction	3.85	59.2%	4.10	79.4%
Classroom Management	3.9	66.2%	4.24	83.5%
Student Assessment	3.75	60.4%	4.15	78.2%
Cultural Enrichment	3.76	60.9%	4.22	83%

Note. N= 35 for 2018, N=45 for 2021. Efficacy was determined by the percentage of teachers reporting 4 or higher on the Likert scale. Mean reports the average value for each domain. Four (4) or higher indicates responses were either mostly or completely confident.

Research Question 2: What is the perceived level of CRT self-efficacy in curriculum and instruction among teachers in the target school district?

Teacher Self Efficacy for practices associated with curriculum instruction are reported in Table (4.2). The data provide a nuanced look at practices aligned with curriculum and instruction. Item means and percentage responses in mostly and completely confident categories

are reported with several items in the instructional domain. Results are organized by low and high responses.

In 2018, the task with the lowest average efficacy was greeting English language learners with a phrase in their native language. The time mean was 3.35 with 43.9% of the responses indicating confidence in doing this task. The next lowest level of efficacy was in designing a lesson that shows how other cultural groups have made sense of mathematics. Teachers had a mean of 3.55 with 58.5% having confidence in this item. Teachers had an average of 3.9 for the practice of critically examining the curriculum to determine whether it reinforces negative cultural stereotypes, with 60.9% of the teachers reporting confidence with this practice.

Low areas of efficacy in 2021, included greeting English language learners with a phrase in their native language, with a mean of 3.27 at 48.9%. Teachers had lower efficacy in the practice of designing a lesson that shows how other cultural groups have made sense of mathematics, with a mean of 3.57 at 55.3%. Lastly, low efficacy was reported for revising instructional material to include better representation of cultural groups, with a mean of 3.73 with 60.9% of the teachers feeling efficacious.

High efficacy tasks in 2018 addressed instructional approaches aligned with student needs. Teachers' had a mean of 4.2 with 80% reporting confidence in using a variety of practices. Regarding obtaining information about students' strengths, revising instructional material to include a better representation of cultural groups, and using the interest of students to make learning meaningful for them, had high efficacy with similar means of 4.15, with 78% efficacy threshold. The practice of adapting instruction to meet the needs of students, had a mean of 4.08, with 75.6% of the teachers rating themselves as efficacious.

Teachers rated themselves highest in the domain of curriculum and use of instruction in 2021. Highest ratings were identified as practices involving the using students' prior knowledge to help make sense of new information; the mean was 4.53 and 97.9% efficacy threshold. Teachers also reported high self-efficacy in response to the practice of using a variety of teaching methods, with a mean of 4.47 with 95.8% efficacy threshold. High efficacy for the practice of adapting instruction to meet the needs of students and using the interest of students to make learning meaningful was reported. It had a mean of 4.43 with 91.5% efficacy threshold .

Table 4.2

Curriculum and Use of Instruction

Question	Mean '18	% Efficacy '18	Mean '21	% Efficacy '21
Adapt instruction to meet needs of students	4.08	75.6%	4.43	91.5%
Obtain information about my student's academic strengths	4.15	78%	4.36	89.3%
Use a variety of teaching methods	4.2	80%	4.47	95.8%
Develop community of learners with class of diverse backgrounds	3.85	65.8%	4.36	89.3%
Use my students' cultural background to help make learning meaningful	3.82	63.4%	4.27	85.1%
Use my students' prior knowledge to help them make sense of new information	4	71.2%	4.53	97.9%
Teach students about their cultures' contributions to science	3.65	63.4%	3.87	68.1%
Greet English Language Learners with a phrase in their native language	3.25	43.9%	3.28	48.9%
Revise instructional material to include a better representation of cultural	4.15	78%	3.73	60.9%

groups				
Critically examine the curriculum to determine whether it reinforces negative cultural stereotypes	3.8	60.9%	4.32	87.3%
Design a lesson that shows how other cultural groups have made sense of mathematics	3.55	58.5%	3.57	55.3%
Model classroom tasks to enhance English Language Learners understanding	3.65	65.8%	3.89	72.3%
Use a learning preference inventory to gather data about how many students like to learn	3.65	65.8%	3.88	70.2%
Use examples that are familiar to students from diverse cultural backgrounds	3.65	65.8%	3.99	78.7%
Obtain information about my students' academic interests	4.08	75.6%	4.28	85.2%
Use the interests of students to make learning meaningful for them	4.15	78%	4.43	91.5%
Design instruction that matches my students developmental needs	3.9	70.7%	4.24	83%

Note. N= 35 for 2018, N=45 for 2021. Efficacy was determined by the percentage of teachers reporting 4 or higher on the Likert scale. Mean reports the average value for each question. Four (4) or higher means their responses were either mostly or completely confident on individual items in each dimension.

Research Question 3: What is the perceived level of CRT self-efficacy in classroom management among teachers in the target school district?

Teacher Self Efficacy for practices associated with classroom management are reported in Table (4.3). The data provide a nuanced look at practices aligned with classroom management. Item means and percentage responses in mostly and completely confident categories are reported with several items in the instructional domain. Results are organized by low and high responses.

In Table (4.3), the lows and highs in reported efficacy in Classroom Management are reported. The lows range below a mean of 3.7 with less than 60% of teachers reporting feeling efficacious and the highs range with a mean greater than 4.35 and above 85.3% of teachers reporting efficacy in 2018. Highlighting these specific areas in this domain will pinpoint the areas in which teachers need to build efficacy as well as and the areas that they are reporting to be grounded in.

Obtaining information about a student's home life had a low mean of 3.2 with only thirty-nine percent of teachers at the efficacy threshold in 2018. Regarding the practice of praising English language learners for their accomplishments in their native language, teachers reported a mean of 3.28 with only 46.3% at the efficacy threshold. In designing a classroom environment using displays that reflect a variety of cultures, teachers reported a mean of 3.43, with 51.2% efficacy. Teachers felt limited in their confidence to establish positive home-school relations, with a mean of 3.6 and only 56% efficacy. With regards to the practice of communicating with parents of English Language Learners, teachers reported a mean of 3.58 with 58.5% at the efficacy threshold.

In 2021, the practice with the lowest level of confidence was praising English Language Learner accomplishments using a phrase in their native language with a mean of 3.40 and only 53.2% efficacy. Teachers had lower efficacy in the practice of communicating with parents of English Language Learners regarding their child's achievement with a mean of 3.6 and 55.3% efficacy threshold. In obtaining information about a students' home life, lower efficacy was reported, with a mean of 3.81and 63.8% efficacy.

High areas of efficacy in 2018 included the practice of building a personal relationship with students, with a mean of 4.53 and 95% efficacy. Helping students feel like important members of the classroom, with a mean of 4.35, 87.8% efficacy was reported. Teachers also reported higher confidence in the practice of building trust in their students with a mean of 4.33 and 85.5% efficacy.

In 2021 teachers reported efficacy in the practice of building a sense of trust in their students with a mean average of 4.68 and 100% efficacy. With the practice of determining whether students like to work alone or in a group, teachers reported a mean of 4.53 with 97.9% efficacy. Helping students develop positive relationships with their classmates had a similar mean of 4.53 and 97.9% efficacy threshold. With the practices of developing a personal relationship with their students and in helping students feel like important members of the classroom, both tasks had a mean of 4.58 and 95.8% efficacy threshold. Additionally in 2021, teachers reported feeling efficacious at structuring parent-teacher conferences so that the meeting was not intimidating for parents with a mean of 4.53 and 93.6% efficacy. With the practice of determining whether students feel comfortable competing with others, the mean was 4.38 with 91.5% efficacy threshold. Lastly, the reported efficacy in implementing cooperative learning activities for those students who do not like to work in groups had a mean of 4.38 with 91.5% efficacy.

Table 4.3

Classroom Management

Question	Mean ’18	% Efficacy ‘18	Mean ’21	% Efficacy ‘21
Determine whether my students like to work alone or in a group	4.2	80.4%	4.68	97.9%
Determine whether my students feel comfortable competing with	4.05	78%	4.38	91.5%

other students				
Obtain information about my students' home life	3.2	39%	3.81	63.8%
Build a sense of trust in my students	4.33	85.3%	4.72	100%
Establish positive home-school relations	3.6	56%	4.21	83%
Identify ways that students communicate at home that may differ from school norms	3.88	68.2%	4.25	85.1%
Obtain information about my students' cultural background	3.7	60%	4.06	74.5%
Design a classroom environment using displays that reflects a variety of cultures	3.43	51.2%	3.98	70.3%
Develop a personal relationship with my students	4.53	95%	4.58	95.8%
Praise English Language Learners for their accomplishments using a phrase in their native language	3.28	46.3%	3.40	53.2%
Communicate with parents regarding their child's educational progress	4.05	75.6%	4.3	87.3%
Structure parent-teacher conferences so that the meeting is not intimidating for parents	4.13	78%	4.53	93.6%
Help students to develop positive relationships with their classmates	4	70.7%	4.68	97.9%
Communicate with the parents of English Language Learners regarding their child's achievement	3.58	58.5%	3.6	55.3%
Help students feel like important members of the classroom	4.35	87.8%	4.58	95.8%
Implement cooperative learning	4.15	82.9%	4.38	91.5%

activities for those students who like to work in groups	

Note. N= 35 for 2018, N= 45 for 2021. Efficacy was determined by the percentage of teachers reporting 4 or higher on the Likert scale. Mean reports the average value for each question. Four (4) or higher means their responses were either mostly or completely confident on individual items in each dimension.

Research Question 4: What is the perceived level of CRT self-efficacy in student assessment among teachers in the target school district?

Teacher Self Efficacy for practices associated with student assessment are reported in Table (4.4). The data provide a nuanced look at practices aligned with student assessment. Item means and percentage responses in mostly and completely confident categories are reported with several items in the instructional domain. Results are organized by low and high responses.

Teachers felt the least efficacious in 2018 in the practice of identifying ways that standardized tests may be biased towards linguistically diverse students, with a mean of 3.4 and only 43.9% efficacy. Identifying ways that standardized tests may be biased towards culturally diverse students, had a mean of 3.45 only 51.2% efficacy threshold. Teachers reported the lowest level of efficacy in 2021 similar to the first survey administration in the practice of identifying ways that standardized tests may be biased towards linguistically diverse students with a mean of 3.87 and 63.8% responding as efficacious. Likewise, in identifying ways that a standardized test may be biased towards culturally diverse students, teachers reported a mean of four and 72.2% efficacy threshold, similar to 2018.

High confidence in the practice of obtaining information about students' academic weaknesses, with a mean of 4.13 with 78% efficacy was reported in 2018. Regarding assessing student learning using various types of assessments, a mean of 4 and almost 71% of teachers felt

efficacious. High efficacy ratings in 2021 included the practice of assessing student learning using various types of assessments. Teachers reported a mean of 4.36 and 85% efficacy. Additionally, when questioned about the practice of obtaining information about their students' weaknesses, the mean was 4.38 with 91.5% of the teachers reporting efficacy.

Table 4.4

Student Assessment

Question	Mean '18	% Efficacy '18	Mean '21	% Efficacy '21
Assess student learning using various types of assessments	4	71%	4.36	85.1%
Obtain information about my students' academic weaknesses	4.13	78%	4.38	91.5%
Identify ways that standardized tests may be biased towards linguistically diverse students	3.4	43.9%	3.87	63.8%
Identify ways that standardized tests may be biased towards culturally diverse students	3.45	51.2%	4	72.2%

Note. N= 35 for 2018, N= 45 for 2021. Efficacy was determined by the percentage of teachers reporting 4 or higher on the scale. Mean reports the average value for each question. Four (4) or higher means their responses were either mostly or completely confident on individual items in each dimension.

Research Question 5: What is the perceived level of CRT self-efficacy in cultural enrichment among teachers in the target school district?

Teacher Self Efficacy for practices associated with cultural enrichment are reported in Table (4.5). The data provide a nuanced look at practices aligned with cultural enrichment. Item means and percentage responses in mostly and completely confident categories are reported with several items in the instructional domain. Results are organized by low and high responses.

In 2018, the practice of identifying ways that the school culture is different from the students' home cultures, with a mean of 3.68 and 51.2% reporting efficacy. When implementing strategies to minimize the effects of the mismatch between students' home culture and school culture, with a mean of 3.38 and only 43.9% of the teachers reported efficacy, this was a task of low confidence as well in 2018. In 2021. the practice of teaching students about their culture's contributions to society, a low mean for this domain of 4.09 with 80.8% efficacy was reported. Lastly, teachers reported regarding the practice of implementing strategies to minimize the effects of the mismatch between students' home culture and school culture, a mean of 3.98 with 70.2% efficacy threshold.

High levels of efficacy in 2018 were reported regarding the practice of explaining new concepts using examples taken from students' everyday lives, with a mean of 4.08 with 75.6% of the teachers reporting feeling confident. Regarding teaching students about their culture's contributions to society, a mean of 3.9 and 70.7% of the teachers reported feeling efficacious as a high in this domain as well. In 2021, the highest report of efficacy was regarding the practice of explaining new concepts using examples that are taken from students' everyday lives, with a mean of 4.45 with 93.7% of the teachers reported feeling efficacious. In identifying ways that the school culture is different from the students' home cultures, teachers reported another high mean of 4.38 with 87.2% of the teachers having confidence.

Table 4.5

Cultural Enrichment and Competence

Question	Mean '18	% Efficacy '18	Mean '21	% Efficacy '21

Identify ways that the school culture (e.g., norms, values, and practices) is different from students' home cultures	3.68	51.2%	4.09	80.8%
Implement strategies to minimize the effects of the mismatch between students' home culture and the school culture	3.38	43.9%	3.98	70.2%
Explain new concepts using examples that are taken from students' everyday lives	4.08	75.6%	4.45	93.7%
Teach student about their cultures' contributions to society	3.9	70.7%	4.38	87.2%

Note. N= 35 for 2018, N=45 for 2021. Efficacy was determined by the percentage of teachers reporting 4 or higher on the scale. Mean reports the average value for each question. Four (4) or higher means their responses were either mostly or completely confident on individual items in each dimension.

Research Question 6: To what extent do teachers' overall self-efficacy scores differ by teacher characteristics (i.e., years in teaching, years in the district, race/ethnicity, and certification level)?

Tables 4.6a-4.6d report data from 2018 in response to RQ6. The researcher conducted a one-way ANOVA analysis to test whether group means differ significantly. The obtained F statistics for Years Teaching, Years in District, Race/Ethnicity and Teacher Certification Levels are outlined below.

Table 4.6a reports results of the ANOVA for years of experience in teaching. Participants were grouped into categories of: 1-5 years in teaching (n=16), 6-10 years in teaching (n=4), 11-15 years in teaching (n=7), and over 15 years in teaching (n=8). The one-way ANOVA determined no statistically significant difference based on years in teaching *(F (3,31) =1.42, p = 0.2554)*.

Table 4.6a

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Years Teaching 2018

Source	SS	df	MS	F	Prob>F
Between groups	4.11001251	3	1.37000417	1.42	0.2554
Within groups	29.8899867	31	.964193121		
Total	33.9999993	34	.999999978		

Bartlett's test for equal variances: chi2(3) = 1.3119, Prob>chi2 = 0.726

Table 4.6b reports results of the ANOVA for years in the sample district. Participants were grouped into categories of: 1-5 years in district (n=22), 6-10 years in district (n= 4), 11-15 years in district (n= 4) and over 15 years in district (n=5). There was no statistically significant difference based on years in the district as determined by the one-way ANOVA *(F (3,31) =0.45, p = 0.7179)*.

Table 4.6b

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Years in District 2018

Source	SS	df	MS	F	Prob>F
Between groups	1.42422336	3	0.45	0.7179	.474741121
Within groups	32.5757759	31	1.05083148		
Total	33.9999993	34	.999999978		

Bartlett's test for equal variances: chi2(3) = 3.8847, Prob>chi2 = 0.274

Table 4.6c reports results of the ANOVA for race/ethnicity of participants. Participants were grouped into categories of: Black (n= 25), Native American/PI (n= 1), Caucasian (n= 9) Hispanic (n= 0) and Two or more races (n=0). The one-way ANOVA determined no statistically significant difference based on race/ethnicity *(F (2,32) =0.38, p = 0.6878)*.

Table 4.6c

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Race/Ethnicity 2018

Source	SS	df	MS	F	Prob>F
Between groups	.78620318	2	.39310159	0.38	0.6878
Within groups	33.2137961	32	1.03793113		
Total	33.9999993	34	.999999978		

Bartlett's test for equal variances: chi2(1) = 0.7627, Prob>chi2 = 0.38

Table 4.6d reports results of the ANOVA for teacher certification levels in the sample district. Participants were grouped into categories of: Elementary (n= 10), Middle (n=6), High School (n=15) and None (n=4). The one-way ANOVA determined no statistically significant difference based on teaching certification *(F (3,31) =0.18, p = 0.9072)*.

Table 4.6d

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Teacher Certification Level 2018

Source	SS	df	MS	F	Prob>F
Between groups	.591592554	3	.197197518	0.18	0.9072
Within groups	33.4084067	31	1.07769054		
Total	33.9999993	34	.999999978		

Bartlett's test for equal variances: chi2(3) = 2.9319, Prob>chi2 = 0.402

Tables 4.7a-4.7d report data from 2021 regarding RQ6. The researcher conducted a one-way ANOVA analysis to test whether group means differ, the obtained F statistics for Years Teaching, Years in District, Race/Ethnicity and Teacher Certification Levels the results are outlined below.

Table 4.7a reports results of the ANOVA for years of experience in teaching. Participants were grouped into categories of: 1-5 years in teaching (n=23), 6-10 years in teaching (n=11), 11-15 years in teaching (n= 3) and over 15 years in teaching (n= 8). The one-way ANOVA determined no statistically significant difference based on years of teaching experience (F (3,41) =0.42, p = 0.724).

Table 4.7a

One-way result for Culturally Responsive Teaching Self Efficacy (CRTSE) and Years Teaching 2021

Source	SS	df	MS	F	Prob>F
Between groups	1.29976445	3	.433254818	0.42	0.7424
Within groups	42.700236	41	1.04146917		
Total	44.0000005	44	1.00000001		

Bartlett's test for equal variances: chi2 (3) = 4.9113, Prob > chi2 = 0.178

Table 4.7b reports results of the ANOVA for years in the sample district. Participants were grouped into categories of: 1-5 years in district (n=37), 6-10 years in district (n= 3), 11-15 years in district (n= 2) and over 15 years in district (n=3). There was no statistically significant difference based on years in the district as determined by the one-way ANOVA (F (3,41) =0.15, p = 0.9269).

Table 4.7b

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Years in District 2021

Source	SS	df	MS	F	Prob>F
Between groups	.4883157	3	.1627719	0.15	0.9269
Within groups	43.5116848	41	1.0612606		
Total	44.0000005	44	1.00000001		

Bartlett's test for equal variances: chi2(3) = 4.8917, Prob>chi2 = 0.180

Table 4.7c reports results of the ANOVA for race/ethnicity of participants. Participants were grouped into categories of: Black (n=25), Native American/PI (n= 1), Caucasian (n= 14) Hispanic (n=2) and Two or more races (n=3). The one-way ANOVA determined no statistically significant difference based on teacher race/ethnicity *(F (7,37) =1.15, p = 0.3542)*.

Table 4.7c

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Race/Ethnicity 2021

Source	SS	df	MS	F	Prob>F
Between groups	7.86420586	7	1.12345798	1.15	0.3542
Within groups	36.1357946	37	.976643098		
Total	44.0000005	44	1.00000001		

Bartlett's test for equal variances: chi2(2) = 0.6911, Prob>chi2 = 0.708

Table 4.7d reports results of the ANOVA for teacher certification levels in the sample district. Participants were grouped into categories of: Elementary (n=17), Middle (n= 10), High School (n=13) and None (n=5). The one-way ANOVA determined no statistically significant difference based on teaching certification *(F (3,41) =1.89, p = 0.1465)*.

Table 4.7d

One-way result for Culturally Responsive Teaching Scale (CRTSE) and Teacher Certification Level 2021

Source	SS	df	MS	F	Prob>F
Between groups	5.34362711	3	1.78120904	1.89	0.1465
Within groups	38.6563734	41	.942838375		
Total	44.0000005	44	1.00000001		

Bartlett's test for equal variances: chi2(3) = 0.7458, Prob>chi2 = 0.862

Chapter Summary

In this chapter, the researcher reports data from 2018 and 2021 school years from teachers' responses regarding perceptions of their self-efficacy related to Culturally Responsive Teaching. The questions addressed curriculum and instruction, classroom management, student assessment, and cultural enrichment. The data reported also represent the overall level of Culturally Responsive Teaching Self Efficacy and the results by the demographics of years in teaching, years in the district, race/ethnicity, and certification type.

Overall, the data collected revealed that teachers in the 2021 administration reported feeling more confident regarding specific tasks related to CRT than teachers in 2018. While this change is positive, it is important to note that the needs assessment is not intended to evaluate strategies to improve CRT efficacy, but rather to evaluate teacher efficacy regarding a certain task. It is also important to note that the data revealed no statistical differences by teacher characteristics. The data collected revealed a common thread between the two years of low confidence in areas related to student home life, specifically regarding home language and cultural norm differences between the home and school. It also illuminated that novice teachers felt less confident than experienced teachers. Lastly, it revealed that teachers lacked confidence in their ability to connect culturally diverse students to instructional supports that would allow them to see themselves in math and science.

CHAPTER FIVE

Discussion

Gay (2010) speaks to the need for schools to accept the legitimacy and viability of CRT as a tool to set high expectations for culturally diverse students because of its ability to give a source, focus, power, and direction to student learning. The school district in which this needs assessment was conducted followed Gay's argument by adding Culturally Responsive Teaching as a priority in its strategic plan. The district did so with the understanding that the value of CRT comes in its use by teachers in the classroom, not merely its addition to a strategic plan (Gay, 2010). By measuring the efficacy of teachers to use CRT, the school district can determine how to build the capacity of teachers to create classrooms that are responsive to students' socio-cultural contexts. The purpose of this discussion chapter is to place the results in context with the existing literature so that needs to strengthen the effective use of CRT in the school district can be identified.

The findings of the current study suggest that three needs in particular standout as salient areas for the target district to address. First, novice teachers (between 1-5 years of experience) reported lower efficacy for CRT than more experienced teachers. Second, teachers reported lower efficacy on items related to socio-cultural consciousness than other instructional tasks. Third, utilizing CRT strategies in science and math instruction is an area for improvement for many teachers. These three needs are situated in the literature before discussing possible actions to address the needs. The evidence from the two time periods is useful for a comprehensive picture of teacher efficacy with CRT, as the percentage of teachers reporting that they were mostly or completely confident about CRT self-efficacy increased between 2018 and 2021.

Enhancing CRT Efficacy for Novice Teachers

Novice teachers may be less familiar or not developed regarding the cognitive assets of CRT. The data in both 2018 and 2021 reveal that novice teachers had lower efficacy compared to teachers who had been in the classroom for six or more years. Although ANOVA results did not reveal a statistically significant difference in composite efficacy scores, there were consistently lower ratings on several items for this group of teachers in both years. Novice teachers reported low efficacy for identifying ways that the school culture is different from students' home cultures; implementing strategies to minimize the effects of mismatch between students' home culture and the school culture; obtaining information about students' home life; obtaining information about students' cultural background; revising instructional material to include better representation of cultural groups (decreased in second survey); and in designing a lesson to show how other cultural groups have made sense of mathematics (decreased in second survey).

Tillman (2002) asserts that novice teachers may need more help and support with reflecting on and understanding the unique histories and experiences, the varied learning styles, and needs of students from various racial, ethnic, and socioeconomic groups. This was illuminated in the evidence collected, as novice teachers reported feeling less efficacious with tasks related specifically to home life and home cultures. They reported feeling the least confidence with utilizing students' home life and home culture to design lessons and make connections with instructional materials. Ensuring that novice teachers are nurtured and supported in developing efficacy in using CRT is a need that the district can address.

It is not surprising that Novice teachers would report lower efficacy on CRT practices. Evidence on Novice teachers and their professional growth describe developmental stages that

define their learning. According to Moir (1999) new teachers go through five different phases of development: (a) anticipation - teachers have an idealistic view of teaching; (b) survival - teachers have a sense of being overwhelmed and worry about keeping up; (c) disillusionment - novice teachers start to doubt their ability to teach; (d) rejuvenation - beginning teacher has developed confidence, generally after winter break, and have developed coping skills; and (e) reflection - where teachers take stock of their beginning months in education and think about what they can do differently.

Based on the responses of novice teachers in this needs assessment, gaining an understanding of students' home life potentially takes a back seat in their process of development in the profession. With support through the early phases of novice teaching, according to Moir (1999), teachers will reach a phase of rejuvenation in which they develop confidence, which will support novice teachers in increasing confidence in this area. Intentionally coaching teachers to build classroom cultures and learning around communal talk and instructional tasks as well as providing authentic experiences for teachers to become acquainted with their community will also support the building of confidence for novice teachers (Hammond, 2013). According to Hoy (2000) once efficacy beliefs are established, with experience, they are resistant to change, thus time to build confidence is important to building efficacy. Confidence in CRT would mean that novice teachers believe in their ability to use students' cultural knowledge, prior experience, and knowledge to facilitate teaching and learning (Siwatu, 2007). Improving novice teachers' confidence in CRT is possible with intentional support to bridge the gap between a student's home environment and the school environment.

Enhancing CRT Efficacy in Socio-Cultural Consciousness

Areas of low efficacy across the two data sets were consistently related to areas of sociocultural consciousness. Sociocultural consciousness involves being aware that race, ethnicity, social class, and language influences one's thinking, behaving, and being (Vygotzsky, 1986). Gay (2000) adds to the meaning by positing that marginalization and its consequences also translate into sociocultural consciousness. Villegas and Lucas (2002) define sociocultural consciousness as "understanding that people's way of thinking, behaving, and being are deeply influenced by such factors as race/ethnicity, social class and language"(p.28). Race/ethnicity, social class and language are directly related to students' home environments and include family structures. Teachers reported a lack of confidence in working collaboratively and cooperatively with families which could help to bridge the gap between home and school environments and improve student learning.

Teachers in both 2018 and 2021 rated themselves low in areas such as 1) obtaining information about a student's home life; 2) establishing positive home-school relationships; 3) obtain information about students cultural background; 4) identifying ways that the school culture (e.g., norms, values and practices) is different from students' home cultures; 6) implementing strategies to minimize the effects of the mismatch between students' home and school culture; and 7) designing a classroom that reflects a variety of cultures. Specifically, the scores were low regarding the implementation of strategies to minimize the effects of the mismatch between students' home culture and the school culture. The average mean on this response over the two administrations was below the mostly or completely confident level of 4 with a mean, at 3.68, indicating that most teachers were less than confident in their ability to manage this task.

Efficacy in this domain is achievable based on the teacher's capacity and willingness to inquire and understand how a student's home environment shapes their perceptions of and understanding of learning environments (Ladson-Billings, 1995a). Ladson-Billings' (1995a) foundational work speaks to the importance of acknowledging the strengths and experiences that students from culturally diverse backgrounds brought to the classroom. Her work highlighted instruction with songs that students listened to for introducing poetry related to the curriculum and state standards. CRT does not propose to water down the teaching of standards or curriculum; it is quite the opposite. CRT proposes to improve upon curriculum and enhance standards by including and representing all students (Howard, 2011). Therefore, teachers need the capacity and willingness to identify and utilize culturally appropriate norms and instructional strategies. This begins with preparing teachers with a solid foundation in required standards for student learning (Howard, 2011). Once teachers have this base knowledge of standards, they can begin to design their instruction based on the needs of the community they serve. Sociocultural understanding and learning form the mental models that teachers need to draw on consciousness in their teaching.

Hofstede et. al's (2010) concept of cultural archetypes is useful for understanding the need to build cultural consciousness. Understanding the cultural archetypes or a culture's model or learning pattern is essential to understanding how to approach instruction for diverse learners, as these archetypes are developed in the home and community of the students where their first learning occurs (Hammond, 2021). Teachers confident in CRT recognize that a student's culture is rooted in patterns or models and work to utilize these to provide effective instruction rooted in them (Hammond, 2021). Collectivist and individualistic are two archetypes that can support teachers in understanding typical dispositions of learners (Hofstede et.al, 2010) "Collectivistic

societies emphasize relationships, interdependence within a community and cooperative learning. Individualistic societies emphasize individual achievement and independence" (Hammond, 2015, p. 25). Acknowledging a student's approach to learning is as important as what they learn. Hammond (2015) invites teachers using CRT to determine the learning archetypes of students as a method to ensure the accomplishment of learning. Understanding that American schools are composed of increasing numbers of culturally diverse students and that while the dominant archetype in America is individualistic, the students in our classrooms and the classrooms of the future primarily represent collectivist cultures. Acknowledging that student dispositions towards learning and school may be different is a beginning for teachers that are desirous to make connections and build relationships with students to improve learning, but essential to building confidence in this area.

Teachers who have more sociocultural awareness are more likely to develop relationships with students that break down the barriers of distrust and skepticism (Brand, 2014), students are more likely to feel that teachers care and believe in them which is critical to student success. Through the intentional development of relationships with families and communities, emphasis on building a solid foundation of learner expectations (e.g., state standards), and a commitment to understanding the cultural learning patterns of students, teachers can build confidence in areas related to sociocultural consciousness, which will lead to improved student outcomes.

Enhancing CRT Efficacy in STEM subjects

Lastly, questions on the survey related to teaching students about contributions from diverse cultures to math and science and designing lessons utilizing perspectives from diverse cultures in math were rated low by teachers in both years. Low confidence in these areas could indicate that teachers do not feel prepared to present science and math curriculum in a manner

that allows students to access information through a lens that aligns with their cultural backgrounds. Specifically, tasks related to teaching students about their cultures' contributions to science and designing a lesson that shows how other cultures have made sense of mathematics were areas that teachers rated themselves low in both 2018 and 2021.

Nationally, science and math test scores of students of color are lower. In addition, Black workers constitute 11% of all workers in the US, but only 9% of the STEM workers, which has remained stagnant since 2016 (PEW Research, 2021). Student access to quality STEM opportunities is paramount to address this need. The long-term outlook for diversity in the STEM workforce is closely tied to representation of STEM in the K-12 educational system and the nation's colleges and universities. STEM workers are about twice as likely to hold a bachelor's degree or some postsecondary education (PEW Research, 2021). An important factor in persistence and success in STEM is the feeling of belonging and interest in STEM. This contributes to students' STEM identity and supports students of color in feeling accepted and capable, especially in a field in which they are underrepresented (Kim & Sinatra, 2018, Ito & McPherrson, 2018). Feeling a greater sense of belonging can have a positive impact on retention and academic success (Rattan et al., 2015)

To increase the numbers of students from underrepresented groups achieving in STEM disciplines, educators should incorporate courses and learning experiences in their programs that foster sociocultural consciousness (Brand, 2014), make connections to students' cultural backgrounds, and acknowledge cultural methods of learning and demonstrating knowledge (Taft, 1994). Educators in STEM subjects are less likely than their language arts counterparts to receive training that prepares them to address culturally or linguistically diverse students (Charity Hudley & Mallinson, 2015). Incorporating literature that highlights accomplishments of

culturally diverse STEM professionals will assist teachers in their ability to identify and make connections for students in this area and preview course materials and resources to ensure that representation within them reflect a diverse array of cultures, thoughts and approaches. Teachers confident in CRT should also possess an ability to interpret the needs of students and accept the responsibility of providing resources necessary to facilitate their achievement in STEM.

Designing a lesson that shows how other cultures have made sense of mathematics was an area of low confidence for teachers in this district. Recognizing cultural differences in vocabulary and utilizing "everyday" vocabulary with students to bridge the gap between home and school is an affirming way for teachers to relate universal math concepts to students (Tate, 1994, Charity Hudley & Mallinson 2015). Providing explicit professional development for teachers to attain skills that will allow them to utilize the relationship between culture and language to scaffold mathematical concepts is necessary to build confidence in this task.

Strategies to Enhance Teacher CRT Efficacy and Use

According to Bandura (1997), self-efficacy beliefs influence how well people motivate themselves and persevere in the face of difficulty through the goals that they set for themselves. In the application of the self-efficacy construct to teaching, Tschannen-Moran et.al (1998) state that the most influential activity that shapes a teacher's confidence is having an actual teaching experience. Bandura (1977) also states that through the exposure of mastery experiences, specifically providing an individual with concrete evidence that they can execute a specific skill, that one can gain self-efficacy in this specific area. Bandura (1997) also believed through the observation of a model that successfully demonstrates a task, that this observation may influence an individual's beliefs about their own abilities which he identifies as vicarious experiences. Siwatu (2007) found in his study of preservice teachers utilizing the CRTSE scale

that teachers lacked access to experiences and were void of models that could help to produce efficacy in these areas.

Working intentionally to construct a cognitive archetype of CRT would strengthen efficacy. This would include demonstrating what culturally embedded learning looks like through coaching. It would also incorporate opportunities for students to envision themselves in STEM related work . This archetype benefits novice teachers and more experienced teachers as well. Through the integration of practices that support cultural competency, which includes helping students recognize and honor their own cultural beliefs and practices while exposing them to a broader culture in these subjects, teachers can begin to assist students in accessing concepts and skills in STEM (Johnson & Elliot, 2020). Working to ensure that equitable practices are in place in STEM related classrooms is also key to ensuring that students will have access to STEM careers (Tanner, 2013).

Providing experiences and opportunities to build teachers' self awareness will also support the building of CRT self efficacy. Hammond (2015) states that CRT comes from being comfortable in your own skin because teachers are not a neutral party in the learning process. She suggests that teachers must do the "inside-out" work required to be a culturally responsive teacher which includes holding an inquiry stance regarding the impact of their interactions with students (Hammond, 2015). Understanding their impact will open their lens to accepting that the cultural scripts that they bring to the classroom may not address the needs of their culturally diverse students and motivate them to improve.

Schools must intentionally scaffold opportunities for teachers and communities to become acquainted and to learn from each other. To make the connection between students' home culture and school/teacher expectations, teachers must work to understand the multiple

levels of culture and the context of the communities that students come from. When teachers understand the levels of culture students have, it gives insight as to what elements are involved in the forming of sociocultural consciousness (Gay, 2000; Ladson-Billings, 1995a; Villegas & Lucas, 2002). According to Hammond (2015), deep culture involves ethics, spirituality, health, and theories of group harmony. She furthers that shallow culture involves social interactions and norms that generally determine how a group treats their elders, eye contact, concepts of time, personal space, and appropriate touching (Hammond, 2015). Lastly, surface culture involves observable and concrete elements of a particular culture, (i.e., food, dress, music, and holidays) (Hammond, 2015). Deliberate strategies to break through surface level culture can be accomplished through conscious and inclusive planning, learning and exposure, as well as coaching. By including these facets in the district strategic plan, as has been done, the district now needs to mobilize with deliberate speed.

Conclusion

Findings from this study demonstrate the need for teachers in this district to build efficacy in CRT. Utilizing an intentional focus on building cognitive archetypes for CRT, cultivating self awareness to increase sociocultural consciousness and coaching teachers in this process, devoloping a lens for CRT that will allow for students to be successful is achievable. Investing in the pedagogy of CRT which seeks to open the worlds of possibilities for each student to bring their whole selves to the classroom and to the world can be the key that unlocks success in learning for culturally diverse students.

An analysis of pre and post teacher data on teacher efficacy before and after professional development would greatly contribute to the body of knowledge and further inform the district of areas that can be improved to achieve efficacy.

Preservice coursework in Culturally Responsive Teaching should be required for successful completion of state teacher certification. A requirement for in-service training for teachers as a matter of policy for the district is also recommended. Acknowledging the vastly changing demographics of our schools and the need to engage teachers that are already in the field is important. The utilization of CRT throughout schools is possible through the building of efficacy in teachers. Providing a framework for districts to assess efficacy and provide efficacy building and sustaining practices will be important to meeting the needs of all learners.

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APPENDIX A

Letter to Participants 2018

Dear Participant,

My name is Cecilia J. Robinson-Woods, and I am conducting a survey to gauge responses regarding Culturally Responsive Teaching. This information will allow me to develop a baseline of the understanding of this pedagogy amongst the staff as well as gauge the individual confidence in your ability to carry out the tasks in the survey. The surveys are completely anonymous and will not be used by any other entity. The demographic information requested will only be utilized to categorize responses for data interpretation. Please take a few minutes to complete the survey and return it sealed in the envelope provided to your principal. Thank you in advance for taking the time to complete the survey that supports research in this area as well as strengthens the professional development provided by the district.

Best regards,

Appendix B

Letter to Participants 2021

Dear Participant,

My name is Cecilia J. Robinson-Woods, and I am conducting a survey to gauge responses regarding Culturally Responsive Teaching. This information will allow me to develop a baseline of the understanding of this pedagogy amongst the staff as well as gauge the individual confidence in your ability to carry out the tasks in the survey. The surveys are completely anonymous and will not be used by any other entity. The demographic information requested will only be utilized to categorize responses for data interpretation. Please take a few minutes to complete the survey attached. Thank you in advance for taking the time to complete the survey that supports research in this area as well as strengthens the professional development provided by the district.

Best regards,

APPENDIX C

Teacher Survey

- Certification level:
    - Elementary_____
    - Middle_____
    - High School_____
- School site_____
- Years in teaching_____
- Years in this district_____
- Race/ethnicity_____
- Is teaching your first career? _____
- Are you alternatively certified? _____

APPENDIX D

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.

1 2 3 4 5

No Confidence at All ⟷ Moderately Confident ⟷ Completely Confident

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.
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 E

District Strategic Plan

[redacted] Public Schools

(Oklahoma City, Oklahoma)

Building on Our Community's Strengths to Achieve Great Results for Our Students!

2016-2020 Strategic Plan

Cecilia J. Robinson-Woods
Superintendent of Schools
January 2016

In the [redacted] Public Schools, we believe that building on our **community's strengths - pride, tradition and loyalty** - is key to ensuring success for every student, by name. We believe that, by mobilizing all stakeholders around a clear mission and common goals, each student in our school system will learn, grow, and succeed. This **Strategic Plan** is our roadmap for turning our intentions into a reality for our students.

Our **Five Goals for Student Success** attest to our belief in the inherent potential of each student:

1. We will give our students a ***strong foundation in Literacy and Numeracy*** in the early years (ages 4-7 years).
2. We will cultivate our students' sense of ***self-responsibility and ownership*** of their own learning.
3. We will welcome our students' ***voice and engagement*** in decisions that directly affect them.
4. We will ensure that our students attain ***mastery of the core subjects***, so that they possess the knowledge and skills for further learning.
5. We will ensure that 100% of our students ***graduate from high school***, ready for success in college or career.

To achieve these results for our students, we have committed to **Four Pillars**, or building blocks, that will frame the actions of our educators, families and community partners.

Our first Pillar – ***Culturally responsive, standards-aligned instruction*** – compels us to teach in ways that ensure successful learning by each student.

Our second Pillar – ***Strong relationships with families and community*** – recognizes that schools can't do it alone. They depend on the commitment of all stakeholders, and must, in turn, be responsive to needs of our stakeholders.

Our third Pillar – ***Effective teacher for every student, effective leader for every school*** – invites us to invest in attracting, developing, and retaining caring and effective teachers, leaders and staff at all levels.

Our fourth Pillar – ***Data-driven continuous improvement*** – encourages us to base our actions and decisions on fact, not opinion.

Achieving our Goals for students is the responsibility of our schools, our families, and our community. This strategic plan mobilizes our community's strengths around our collective desires for every student in [redacted] Public Schools.

The mission of [redacted] Public Schools is to prepare all students academically and socially for lifelong learning and achievement.

Goals and Measures of Student Success

1	2	3	4	5
READINESS IN THE EARLY YEARS	SELF-RESPONSIBILITY AND SELF-DEVELOPMENT	STUDENT VOICE, ENGAGEMENT AND LEADERSHIP	MASTERY OF CORE SUBJECTS	PERSISTENCE TO HIGH SCHOOL GRADUATION
Every child will achieve Literacy and Numeracy readiness criteria for successful transition from pre-Kindergarten to Kindergarten to Grade 2.	Every student, with mentor guidance, will build and implement a personal learning plan.	Every student will play a personal and meaningful role in his/her own learning, and in the educational decision making of the school, district and/or community.	Every student will meet standards of performance in the core subjects at key transitional grade levels.	Every student will graduate from high school with the skills, habit of mind and inherent determination necessary for success in college or career.
MEASURES OF PROGRESS				
a) Readiness for Kindergarten (including self-regulation) b) Proficiency in Literacy & Numeracy by Grade 2	a) Attendance in school and class b) Personal academic and socio-emotional growth plan c) Productive and contributing members of community d) Growth for all students including those in non-traditional family settings	a) Participation in extra-curricular activities b) Participation in community-based activities c) Participation in at least one leadership opportunity	a) Proficiency in English Language Arts/Literacy b) Proficiency in Math and Algebra c) Proficiency in Writing d) Proficiency in Science and Social Studies e) Demonstration of tech-literacy and tech-savvy skills	a) Transition rates from preK-to-Elementary; Elementary-to-Middle School; Middle School-to-HS; HS-to post-secondary and/or career b) Early-exposure, completion, and passing of ACT and SAT c) Early college and career-planning d) High school graduation rate e. College entry without need for remediation

PROFESSIONAL PRACTICES FOR INSTRUCTIONAL EFFECTIVENESS

Successful accomplishment of our Goals for student learning rests on a strong foundation of Teaching Practices, Leadership Practices, and Organizational Practices. Our Four Pillars are the building blocks of those professional practices; they define what all of us - the practitioners and the stakeholders - must do well and consistently every day... in every classroom, in every school, and system-wide.

Pillar #1 **CULTURALLY RESPONSIVE, STANDARDS-ALIGNED INSTRUCTION**	Pillar #2 **STRONG RELATIONSHIPS WITH FAMILIES AND COMMUNITY**	Pillar #3 **EFFECTIVE TEACHER FOR EVERY STUDENT, EFFECTIVE LEADER FOR EVERY SCHOOL**	Pillar #4 **DATA-DRIVEN CONTINUOUS IMPROVEMENT**
We challenge all students by using rigorous standards-aligned curriculum and effective teaching that is responsive to students' varied learning styles, prior knowledge and cultural background.	*We nurture a culture of trust and open communication that supports the personal safety of students and adults, in order to sustain the community's investment in, commitment to, and shared responsibility for student success.*	*We support growth and effectiveness of all employees through year-round continuous professional learning, evidence-based collaboration, and continuous improvement of their practices.*	*We rely on evidence to drive decisions, make informed choices about improvement programs, and to monitor and adjust professional development priorities.*
Teaching Practices			
T1: Teachers provide scaffolding to link curriculum, instruction, assessments, materials, lesson format to students' home, culture, interest, learning style and experience.	T3: Teachers make a concerted effort to challenge negative attitudes or practices to ensure that all students are honored for academic and behavior growth.	T5: Teachers mentor new teachers or struggling colleagues, and assist them in improving their professional practices.	T7: Teachers guide students in setting and monitoring their own progress towards academic and behavioral goals.
T2: Teachers demonstrate caring and respect for all students and encourage students to exhibit care and respect for each other.	T4: Teachers and staff communicate care and concern for students' learning and wellbeing, both verbally and nonverbally to students and parents.	T6: Teachers focus Professional Learning Communities (PLC) on the continuous improvement of student learning and professional practices, including observation of peers.	T8: Teachers analyze and use multiple assessment data (e.g., formative, benchmark, performance, portfolio) to diagnose student learning, adapt instruction, monitor progress, and maximize instructional time.
Leadership Practices			
L1: Principal/Leadership Team ensures that assessment practices are varied and continuous assessments are appropriate to diverse learners.	L3: Leadership Team develops a comprehensive system that includes parents and the community to celebrate success and address barriers to teaching and learning, while reconnecting with disengaged students and families.	L5: Principal builds a Professional Learning Community (PLC) among faculty and staff and guides them through data-driven inquiry cycles.	L7: The principal provides professional development and coaching that supports teachers in building, using and interpreting the data from multiple assessments as well as reflection on professional practices.
L2: Principal communicates regularly with parents and community members (e.g. through newsletters providing an overview of culturally responsive curriculum goals, classroom activities, and selected student work).	L4: Leadership Team builds an infrastructure to promote and link all stakeholders to a learning environment that supports academic and social-emotional growth.	L6: Principal/Leadership team provides time and resources for teachers to observe practices of peers or practitioners in other schools.	L8: Principal assigns teachers based on alignment of their skills with students learning needs and provides frequent feedback regarding classroom practice, based on observation of instruction and student products.
Organizational Practices			
O1: The District /School Leadership implements a standards-based curriculum and formative assessments aligned to state standards, with vertical, horizontal and cross-content alignment across the core instructional program.	O3: The District, in partnership with community stakeholders, develops a full continuum of integrated systems of intervention to promote academic learning and healthy development for all members of the school community.	O5: The School/District explores and facilitates community and parent support to strengthen classroom offerings and professional development of teachers.	O7: The District Leadership ensures that schools have access to high quality multiple assessment measures, as well as the data decision support systems that provides data to inform student learning and improve instruction.
O2: The School/District establishes early-identification and early intervention programs targeted at traditionally underperforming or under-represented students groups.	O4: The School/District and community develop a shared vision and plan for promoting, enhancing, and sustaining a high achieving, and positive school climate.	O6: All staff participates in at least one school or district-level project that contributes to the growth of self and others.	O8: District leadership ensures that categorical and district budget items are clearly linked to the District's vision, focus, and staff development.

Indicators of Progress

What gets measured and reinforced, gets done!

In the medical profession, vital signs define the body's most basic functions and are used to detect and monitor patient health. In a professional learning community, a series of vital signs can be used to track "organizational health" and monitor progress toward the goal.

By paying consistent attention to the Vital Signs of Student Learning and Professional Practices, we will be able to monitor and communicate progress, continuously improve practices, ensure accountability and celebrate our successes.

Student Learning

High-Level Dialogue
- Students use a variety of discourse strategies including elaborating, following-up, rephrasing, repeating, and reflecting.
- Students reflect upon and describe their own learning process.

Monitoring Own Progress
- Increase percentage of students with written learning goals and plan.
- Students chart their own progress against learning targets.
- Students advocate for their own assistance and growth.

Growth on Assessments
- Increase percentage of students who know their own learning targets.
- Increase percentage of students that improve their performance levels from one assessment cycle to the next.

Teaching Practices

Rigorous Learning Activities
- Teacher develops and assigns activities that directly align to the Standards.

Timely Student Feedback
- Teacher gives feedback that is explicitly related to the Standards.

Relationships with Students
- Teachers recognize students for achievement and improvement in academics and behaviors.
- Teacher draws upon students's backgrounds and interests to engage student learning.

Data Guiding Instruction
- Increase percentage of professional development time focused on meeting needs identified by analyzing student performance data and teacher practices.
- Teacher maintains and uses accurate records of student achievement, attendance, and behavior.

Leadership Practices

Evidence of Shared Vision
- Increase percentage of teachers,staff,parents, families, and community members who agree that leadership holds true to and consistently translates our vision and goals into practice.
- Leadership continually shares with parents, families and community members measurable progress toward the school's vision and goals.

Instructional Monitoring
- Principal spends at least 50% of his/her time working directly with teachers to improve instruction, including classroom observations.

Teacher Professional Growth
- Increase percentage of teachers with individual professional development plans based on self-assessments and classroom observations.
- Grade-level/department teams meet for blocks of time sufficient to develop and refine instructional plans and review student learning data.

Monitoring Performance
- Principal compiles and shares reports from classroom observations, showing aggregate areas of strength and areas that need improvement (and protecting the identity of individual teachers).

Organizational Practices

Resources Aligned to Priorities
- At least 10% of school funds go toward professional development.
- Increase percentage of categorical funds allocated to the improvement of teacher-based leadership effectiveness.

Culture of Achievement
- Minimum of two grade-levels and/or whole school expositions of student work expressly for parents, families, and community.
- Staff and administrators regularly acknowledge & celebrate growth in student achievement.

Communication with Families
- Parents regularly receive easy-to- understand student progress reports in student's home language.
- Principal holds at least one informal dialog with parents/families during each assessment cycle.

System-Wide Empowering Infrastructure

The fundamental purpose of our school system is to ensure that all students, without exception, meet academic, behavioral and socio-emotional standards. Effective instruction is the most important predictor of our students' chances of meeting those standards.

However, for instruction to thrive, our practitioners and our schools need a *responsive and empowering system-level infrastructure* to support their efforts. At [redacted], disciplined implementation of the following strategies will facilitate that process.

Pillar #1
CULTURALLY RESPONSIVE, STANDARDS-ALIGNED INSTRUCTION

1.1 Align *curriculum, assessments, materials, professional development, and technology* with the content standards in all content areas and across all levels.

1.2 Execute with fidelity the teaching practices, leadership practices, and organizational practices outlined in the *district-wide framework for instructional effectiveness.*

Pillar #2
STRONG RELATIONSHIPS WITH FAMILIES AND COMMUNITY

2.1 Partner with [redacted] families to *access school and community resources* that support each student's academic growth, family health & wellness, and behavioral and life success.

2.2 Nurture an *open, welcoming environment* at the school and district levels, based on mutual respect and proactive communication among stakeholders.

Pillar #3
EFFECTIVE TEACHER FOR EVERY STUDENT, EFFECTIVE LEADER FOR EVERY SCHOOL

3.1 Train, reinforce and support all teachers, leaders and staff on *effective research-based strategies* to support student learning.

3.2 Provide ongoing training and support to principals and teacher-leaders regarding *consistent implementation* of school improvement plans, and *effective practices of professional learning communities (PLCs).*

Pillar #4
DATA-DRIVEN CONTINUOUS IMPROVEMENT

4.1 Implement a *reliable, easy-to-understand assessment system* to provide educators, students, and parents timely and authentic progress updates about teaching, learning, and leadership.

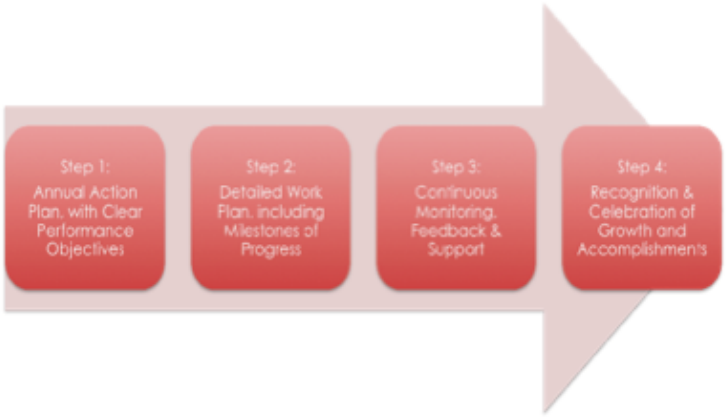
4.2 Motivate a *culture of continuous progress and service excellence* that promotes: results-focused annual action plan; consistent monitoring using Dashboard of key metrics; annual feedback surveys; and annual recognition of progress.

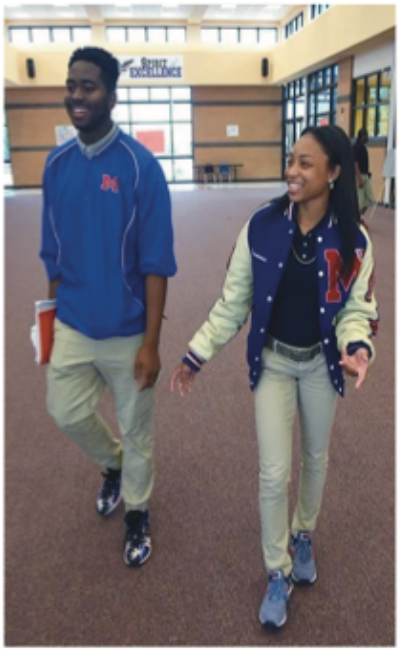
A Call to Action: Paying Attention to Our Intention

Success does not happen by accident; high-performing schools and school districts do not come about "by chance". Consistent performance is the outcome of a disciplined approach to executing the essential functions of the teams, schools, and district as a whole.

Achieving the bold goals outlined in [redacted] strategic plan requires the commitment of the school district and its partners to disciplined implementation of the plan; consistent monitoring of progress in order to be able to make course-corrections in a timely manner; public reporting to sustain commitment of internal and external stakeholders; and motivating and honoring effort and accomplishments.

This 4-step process can be adapted to fit [redacted] local context.





Appendix F

IRB Closure Letter

The UNIVERSITY of OKLAHOMA

Institutional Review Board for the Protection of Human Subjects

Human Research Determination Review Outcome

Date: February 03, 2022

Principal Investigator: Cecilia Robinson-Woods

Study Title: Culturally Responsive Teaching Self Efficacy in One Urban School District: A Needs Assessment

Review Date: 2/3/2022

I have reviewed your submission of the Human Research Determination worksheet for the above-referenced study. I have determined this research does not meet the criteria for human subject's research. The proposed activity involves analysis of de-identified pre-existing data. Therefore, IRB approval is not necessary so you may proceed with your project.

If you have questions about this notification or using iRIS, contact the HRPP office at (405) 325-8110 or irb@ou.edu. Thank you.

Cordially,

Lara Mayeux

Lara Mayeux, Ph.D.
Chair, Institutional Review Board