EXPLORING THE EFFECTS OF TEACHER CULTURAL COMPETENCE ON STUDENT ENGAGEMENT IN DIVERSE EDUCATIONAL LANDSCAPES

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ABSTRACT

Research suggests teacher cultural competency (TCC) is one of the keys to combating current systemic inequities in our educational landscape especially when considering the influences of teacher experience, socioeconomic factors (measured through the percentage of students receiving free lunch), and the composition of student demographics, particularly focusing on white students and English Language Learner (ELL) students. The purpose of this study was to examine teacher scores on the Culturally Responsive Teacher Preparedness Scale (CRTPS) (Hsaio, 2015) and Panorama Student Grit Survey (PSGS) (PanoramaEd, 2019) in the context of teacher experience and varied school demographics, including ethnicity (white and non-white schools), SES, and English-language learners (ELL). Nine research questions were developed for this quantitative study to investigate potential interactions between teacher cultural competency and student engagement, teacher experience, percentage of free lunch, white and ELL students. The study aimed to contribute to a deeper understanding of whether TCC manifests within diverse classroom settings, its potential relevance to student outcomes such as engagement, and provide insights to inform pedagogical practices, curriculum development, and teacher professional development. The findings contributed valuable knowledge to the fields of education and cultural competency, offering practical implications for educators and school administrators striving to create inclusive and effective learning environments in culturally diverse schools.

Keywords: cultural competency, culturally responsive pedagogy, student engagement, teacher cultural competency, culturally responsive leadership, English Language Learners, socioeconomic status, teacher experience

DEDICATION

To Ethan, my sonshine,

You are my reason, my inspiration, and my greatest accomplishment. You are why I never surrendered to the challenges I have faced since the day you were born. I am infinitely thankful and blessed that God chose me to be your mom. Your endless source of empathy for everyone and everything around you inspires me to be a better person. Your wealth of understanding for all the nights and weekends Mom had work to do or 8 hours of class to attend almost two hours away has never ceased to amaze me. I only hope that I can inspire you to follow your dreams, no matter how difficult they seem or how old you get. I am always here for you. Love you tons, to the moon and back.

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Chapter 1: Introduction

Employing teachers of all subjects with a level of cultural competency is key to implementing effective culturally responsive educational practices in all schools. Cross et al., (1989; 2020) defined cultural competence as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency or among professionals and enable that system, agency or those professions to work effectively in cross-cultural situations" (p. 28). Moule (2012) defined culturally competent teaching as "the ability to successfully teach students who come from cultures other than your own" (p. 5). Teacher cultural competence (TCC) is when teachers recognize themselves as members of differing linguistic, racial, ethnic, and socioeconomic groups which affect their worldwide views and teaching styles (Halpern et al., 2022). Mayfield (2020) defined cultural competency as the ability to use critical thinking skills to understand how cultural values and beliefs influence conscious and unconscious behavior. It is the understanding of how inequality has been perpetuated through socialized behaviors and possessing the knowledge and drive to challenge inequitable practices to achieve greater personal and professional success for yourself and others (Mayfield, 2020).

Equity and diversity practices in schools have become integral parts of successful school functioning. Students learn better through experience and relation to the real world (Gay, 2010a). If they can connect what they are taught in the classroom to their lives outside of it, education will be of greater value and the motivation to succeed will increase (Gay, 2010a). In general, students feel valued, capable of learning, and more engaged with the learning environment and materials when the teacher is responsive to their needs (Abacioglu et al., 2019; Gay, 2010b; Nieto, 2004).

In her seminal work Gay (2002) discussed how culturally responsive teaching implies designing culturally relevant curricula and employing methods of culturally responsive instruction to make learning more relevant and effective. Early in the studies of culturally responsive curriculum Ladson-Billings (1994) defined culturally relevant pedagogy as one "that empowers students intellectually, socially, emotionally, and politically using cultural references to impart knowledge, skills, and attitudes" (Abacioglu et al., 2019). Relating learning materials to students' personal lives can vary from simply posting a song that shows acknowledgement of their backgrounds (Landsman, 2006) to a more thorough examination of the teaching material to ensure that it does not reflect only the mainstream perspective (Abacioglu et al., 2019). Teachers possessing high levels of cultural competence can do this successfully (Abacioglu et al., 2019). Teachers lacking in cultural competence understand culturally responsive education (CRE) as cultural celebration which relegates attention to culture to the margins of instruction, ignores low academic expectations for students, as well as the lived culture of the school and classroom, and ignores power relations (Sleeter, 2012).

Problem Statement

With the desegregation of schools in the 1960s and 1970s, developing ways to teach more diverse populations became necessary. In the 1970s districts were experimenting with ideas and practices to make working with diverse student populations more productive. Concepts like culturally appropriate (Au & Jordan, 1981), culturally congruent (Mohatt & Erickson, 1981), culturally responsive (Cazden & Leggett, 1981; Lee, 1998), and culturally compatible (Jordan, 1985) began to emerge in the academic literature (Aronson & Laughter, 2016; Brown-Jeffy & Cooper, 2011; Sleeter, 2012;). Today these terms are referred to under the titles teacher's cultural competence (TCC) and culturally responsive education (CRE).

The unfavorable educational position of ethnically minoritized students in predominantly white and non-white schools, defined as schools with high minority populations, has also been attributed to a mismatch between home and school cultures, sometimes referred to as the home-school cultural value mismatch (Phalet et al., 2004, Vasquez-Salgado et al., 2021).Vasquez-Salgado et al. (2021) stated that frequent home-school cultural value mismatch predicted mental and physical health distress, which predicted academic problems; such problems were, in turn, related to less engagement and lower grades. Advocates of TCC and CRE argued that to increase meaning for students, academic knowledge and skills should be connected to personal experiences and frames of reference within a supportive and cooperative environment (Gay, 2000; 2002; 2022). Employing teachers with a high level of cultural competency can aid in addressing the home-school cultural mismatch leading to increased engagement and success among students (Vasquez-Salgado et al., 2021).

To ensure teachers are teaching in a culturally responsive manner there is a need to enhance their levels of cultural competency (Hamdan & Coloma, 2022). A review of available literature indicated that culturally competent teachers in white and non-white schools not only used justice oriented and transformative curriculum and pedagogy, but also provided welcoming and inclusive classroom spaces (Hamdan & Coloma, 2022). Hamdan and Coloma (2022) identified three emerging themes of cultural competence: recognizing culture; utilizing resources for teaching and learning; and creating a sense of community. A review of available research indicated the necessity of culturally competent teachers in both white and non-white schools (Byrd, 2017; Del Toro & Wang, 2021; Smith et al., 2020). Because white and non-white schools and teachers in them socialize ethnic-racial attitudes and beliefs through interpersonal relationships and culturally competent institutional policies (Aldana & Byrd, 2015; Wang, et al.,

2023), it is essential that educators, particularly in middle school, adopt equitable school practices that support healthy ethnic-racial identity development and the exploration of others' cultural values and experiences within the school community (Wang, et al., 2023). Culturally competent and responsive teachers are more engaging and showcase diversity, inclusion, and democracy in white and non-white classrooms and society at large (Hamdan & Coloma, 2022).

Sleeter (2012) stated the tendency to view culturally responsive pedagogy as cultural celebration disconnected from academic learning is common among educators. Those who have not examined their own expectations for historically minoritized students, and whose attention has become focused on learning about other cultural traditions as an end itself without encouraging acceptance and understanding are not practicing cultural competency. "Learning "about" culture then substitutes for learning to teach challenging academic knowledge and skills through the cultural processes and knowledge students bring to school with them" (Sleeter, 2012, p. 569). Schools, particularly white schools, are acknowledging that diversity exists in classrooms today, but they are not employing all the necessary tactics to use diversity as a tool for student success or engagement. The same applies for trivialization, essentializing and substituting culture for political analysis of inequalities (Sleeter, 2012).

Sleeter (2012) also discussed three factors contributing to the decrease in culturally responsive practices. They are faulty or simplistic conceptions of CRE, too little research connecting CRE with student outcomes and the elite fear of losing national and global hegemony. Education reforms in the U.S. since the 1990s have been deliberately context blind (Sleeter, 2012). While racial achievement gaps have been a focus of attention the solutions emphasized offer all students the same curriculum, taught in the same way without accounting for diversity or seeking inclusivity (Sleeter, 2012).

Over the last 20 years attention has strayed from the theories of TCC and CRE shifting in focus to standardized curriculum and pedagogy guided by business models of school reform showing a decrease in student achievement and engagement (Au, 2007; Keehne et al, 2018). The business models and standardized curriculm have forced teachers to teach to the test highlighting only student achievement as measured solely by test scores with no emphasis on student engagement. Conversely, in the classroom, TCC and CRE have been linked to increased student engagement and achievement specifically in minoritized students. Even though a review of the literature indicated there is a connection between TCC and engagement, culturally responsive practices in the classroom are rarely studied and measured (Aronson & Laughter, 2016; Gay, 2013). As a result, researchers, educators, and policymakers today are calling for a move back to and further development and enhancement of TCC (Hamdan & Coloma, 2022).

Culturally competent teachers are aware and capable of developing and implementing culturally responsive pedagogy and curriculum and practicing culturally responsive teaching methods. Studies indicated that developing cultural competence among teachers who are weak in this area resulted in increased self-awareness, greater empathy and compassion towards students and their stories, and motivated them to advocate for students (Halpern, et al., 2022). Culturally competent teachers implementing these practices have the potential to increase levels of engagement and academic achievement amongst students.

Investigation into TCC and its' impact on student engagement in various demographic settings can serve to guide and inform teacher practices, school policies, pre-service teacher training and continued teacher professional development. Empowering and enabling teachers to become culturally competent or increase their cultural competence could help them to create inclusive classrooms, develop culturally responsive lesson plans, and conduct lessons that appeal

to the diverse student populations. Lastly and arguably the most important aspect of becoming a culturally competent teacher, it will provide educators with the tools necessary to manage and address various behaviors and academic struggles encountered in the classroom through a culturally responsive lens.

While some evidence supports the efficacy of culturally responsive teaching and teacher cultural competence (Gay, 2012), cultural competence is a complex skill requiring ongoing learning and reflection. Teachers in non-white schools with more diverse student populations may have more exposure to different cultures, but this exposure does not guarantee higher cultural competence. The purpose of this study was to determine differences in teacher scores on the Culturally Responsive Teacher Preparedness Scale (CRTPS) and Panorama Student Grit Survey (PSGS) based on experience and various school demographics, including ethnicity (white and non-white schools), SES, and English-language learners (ELL). Discovering links between teacher cultural competency and student engagement can be used to inform school district teaching and hiring practices, teacher and staff professional development and curriculum development.

Research Questions

There is some evidence of the efficacy of culturally responsive teaching and TCC (Gay, 2012). Student engagement is a common concern amongst most school districts and teachers. This study aimed to determine differences in teacher scores on the CRTPS and PSGS based on experience and various school demographics, including ethnicity, SES, and English-language learners. It also intended to examine a relationship between CRTPS and PSGS scores. Study results can be used to inform school district teaching and hiring practices by adding or changing guidelines, influencing questions administration ask in interviews and requiring teachers to have

a working knowledge of cultural competency and culturally relevant practices. It can also inform more focused and advanced teacher and staff professional development and curriculum development with a concentration in cultural relevance and competence.

Research Questions:

RQ1: Is there a relationship between responses to the CRTPS and PSGS scores?

RQ2: Do CRTPS scores differ among teachers with varying levels of experience?

RQ3: Do CRTPS scores differ between teachers in white and nonwhite schools?

RQ4: Do CRTPS scores differ among teachers from schools with higher levels of poverty?

RQ5: Do CRTPS scores differ among teachers from schools with higher levels of ELL students?

RQ6: Do PSGS scores differ among teachers with varying levels of experience?

RQ7: Do PSGS scores differ between white and nonwhite schools?

RQ8: Do PSGS scores differ among teachers from schools with higher percentages of free lunch?

RQ9: Do PSGS scores differ among teachers from schools with higher percentages of ELL students?

Conceptual Framework

Studies have linked TCC and the implementation of culturally relevant pedagogies to increased student engagement and to positive impacts on motivation, interest, and confidence in both white and non-white schools (Aronson & Laughter, 2016; Lopes-Murphy & Murphy, 2016). To improve the current educational system, especially for minoritized students in white and non-white schools, it was worth investigating how teachers score on the Culturally Responsive Teacher Preparedness Scale (CRTPS) and Panorama Student Grit Survey (PSGS) based on differing years of experience and various school demographics, including SES,

ethnicity, and percentage of English-language learners (ELL) and whether there is a relationship between the scores on each instrument.

Examinations of socioeconomic status (SES) across schools often reveal inequities in access to resources, such as well-funded school districts, affordable child-care, early childhood academic resources, as well as issues related to privilege, power, and control (Olsen & Huang, 2021). A thorough reading of available literature suggested the environments, especially in early childhood, of students of lower SES in white and non-white schools are a major factor in low levels of student engagement and achievement (Dietrichson et al., 2017; Olsen & Huang, 2021). TCC allows teachers to self-reflect, examine potential biases, and develop critical awareness of themselves and their students to provide more equitable and inclusive educational environments.

Teachers in both white and non-white schools who possess higher levels of cultural competence are activists for dismantling inequities in education and build relationships with their students. Roorda et al., (2017) discovered positive relationships between the teacher and student increased the students' engagement in the classroom. Roorda et al., (2017) also suggested increased student engagement leads to higher achievement levels in students, especially those that are minoritized.

To assess the impact of TCC in classrooms in both white and non-white schools and provide teachers with tools that enable culturally competent classrooms a look into how teachers self-report their cultural competence and student engagement was important. A teacher's SES can influence their levels of cultural competency in how they act in the classroom, how they teach, their approach to students and their ability to employ culturally responsive practices daily (Aronson & Laughter, 2016). The SES of the students in the schools' influences teacher behavior and affects the levels of cultural competency practiced in the classroom as well.

> Reports of educators' deficit beliefs about culturally and linguistically diverse students and students with low socioeconomic status abound in the literature. Not surprisingly, deficit beliefs are postulated as the main barrier to the implementation of culturally relevant practices and the development of teachers' cultural competence. (Dani & Harrison, 2021)

I have concluded there is also a gap in the research on whether or how TCC influences students' engagement. A study of the literature did indicate the SES of the students in a classroom impacts their interactions with peers and teachers and their level of engagement in the classroom (Aronson & Laughter, 2016), but little existed on whether a teacher's cultural competency influences engagement.

English Language Learners make up over 10 percent of the public-school population in the United States equating to roughly five million students in public schools, grades Kindergarten through 12th grade (Digest of Education Statistics, 2020). That number will most likely continue to rise despite a slight drop during the first year of the coronavirus pandemic when ELL enrollment fell from 5.1 to 5.0 million students (from 10.4 to 10.3 percent of US public school enrollment**)**. Typically, the number of ELL students is higher in urban city centers. However, as of 2015, nine percent of ELL students lived in the suburbs (Scheller & Walker, 2018). Investigation of these statistics illustrated the necessity for new and increased methods of teaching ELL populations. An in-depth look at the literature tells us teachers with higher levels of cultural competency are more apt to recognize this and employ tactics to help this population of students succeed (Scheller & Walker, 2018). Gaps exist in the empirical literature on preparing mainstream classroom teachers for linguistically diverse classrooms.

Significance of the Study

According to the National Center for Educational Statistics (2023) in the nine year period from 2010 to 2019 the total enrollment in public elementary and secondary schools increased from 49.5 million to 50.8 million. This changed during and after the COVID 19 pandemic, where total enrollment dropped by about three million students in the fall of 2020 and fall of 2021 (NCES, 2023, p 3-4). Current total enrollment is projected to continue decreasing to 46.9 million by fall 2031. In addition, racial/ethnic distributions of public school students across the country have shifted with the number of white students decreasing from 52 percent to 45 percent, Hispanic students increasing from 24 percent to 28 percent, and Black students decreasing from 16 percent to 15 percent between the fall of 2010 and fall of 2021(NCES, 2023, p 3-4). These enrollment trends produced changes in the overall composition of U.S. public school students (NCES, 2023, p 3-4) and clearly illustrate the need for assessing teacher's levels of cultural competency. Table 1 below provides the breakdown of student ethnicity in the United States schools as of May 2023.

Table 1

Overall Public School Racial/Ethnic Composition

Year	Total # of Students	White	Hispanic	Black	Asian	2 or more races	American Indian/Alaskan	Pacific Islander
Fall 2021	49.4 million	22.4 million	14.1 million	7.4 million	2.7 million	2.3 million	0.5 million	182,000
2010	50.8 million	25.9 million	11.4 million	7.9 million	2.3 million	1.2 million	0.6 million	N/A

*National Center for Education Statistics. (2023). Racial/Ethnic Enrollment in Public Schools. *Condition of Education*. U.S. Department of Education, Institute of Education Sciences. Retrieved [date], from https://nces.ed.gov/programs/coe/indicator/cge.

Teacher demographics in the United States schools also support the need for further study into the cultural competence of classroom teachers. According to the most recent statistics from the NCES during the 2017–18 school year, the demographics of teachers show a lack of diversity when compared to the students they teach. The NCES data from 2017-2018 states 9.3 percent of United States teachers were White/non-Hispanic, 6.7 percent were Black or non-Hispanic, 9.3 percent were Hispanic, regardless of race, 2.1 percent were Asian, non-Hispanic, and 2.5 percent were Native Hawaiian/Pacific Islander, non-Hispanic, American Indian/Alaska Native, non-Hispanic or two or more races, non-Hispanic. Teachers of a certain race or ethnicity were often found in schools where their race/ethnicity matched that of their students. Conversely, most teachers were white in schools where most of the student were not white.

Studies have shown that TCC and CRE lead to increased student engagement and positive impacts on motivation, interest, confidence (Aronson & Laughter, 2016; Lopes-Murphy

& Murphy, 2016). Culture is deeply embedded in any teaching; therefore, teaching ethnically diverse students must be multiculturalized, through varied curriculum, discipline procedures, support and acknowledgement of all existing cultures present within schools (Gay, 2001). Explicit knowledge about cultural diversity is imperative to meeting the educational needs of ethnically diverse students (Gay, 2001). There is evidence suggesting increased student engagement is correlated to higher student achievement (Hamdan & Coloma, 2022). While there is separate extensive research on culturally responsive teaching and TCC there is little research on the effects they have or do not have on student engagement (Hamdan & Coloma, 2022; Vasquez-Salgado et al., 2021). In Chapter 2 a review of the literature will take a more in depth look at school SES, TCC, student ethnicity, percentage of ELL students and engagement in schools.

Chapter 2: Review of Literature

This chapter begins with a look at SES and continues to discuss TCC, ethnicity and percentage of ELL students and engagement in schools. Popularly held diversity, equity, and inclusion (DEI) beliefs are that active and continuous acknowledgement and recognition of culture, background, intersectionality, and diversity in school climate, culture and curriculum will lead to increased school engagement especially in lower socioeconomic communities. Common threads in culturally relevant education (CRE) are social justice and the classroom as a site for social change (Miller & Martin, 2017). Gay (2000; 2002; 2010a; 2010b; 2013), Ladson-Billings (1994), and Khalifa (2016, 2018), whose seminal works set the stage for research on cultural competence and responsiveness in schools believe teachers who possess higher levels of cultural competence and practice culturally responsive pedagogies will have students who are more engaged and more academically successful.

While it is common for educators to be involved in teaching diverse perspectives other than their own (Hollinsworth, 2016), and the challenges of such teaching are well described (Ladson-Billings, 1998; Page et al., 2016), the literature lacks rigorous analysis of the efficacy and impact of teacher cultural competency (Aberdeen et al., 2013; MacDonald et al., 2023; Nakata, Nakata, Keech, Bolt, 2014). Current research is mostly qualitative and often limited to the reported experiences of teachers and their opinions (Durey et al., 2017; Hollinsworth, 2016; Jackson et al., 2013; MacDonald et al., 2023; Moodie & Patrick, 2017). The few studies there are, teachers did report students find that culturally competent teachers provide positive and worthwhile experiences (MacDonald et al., 2023; Riley et al., 2019; Thorpe & Burgess, 2016).

Gay (2010b) defined culturally responsive teaching "as using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to

make learning encounters more relevant to and effective for them" (Aronson & Laughter, 2016, p. 165). Ladson-Billings (1994) defined culturally relevant pedagogy as one "that empowers students intellectually, socially, emotionally, and politically using cultural referents to impart knowledge, skills, and attitudes" (Aronson & Laughter, 2016, p. 165). Teachers lacking cultural competence will not be able to successfully implement CRE practices.

A discussion of these variables is followed by an examination of how teachers scores compared on the Culturally Responsive Teacher Preparedness Scale (CRTPS) (Hsiao, 2015) and the Panorama Survey for Student Grit (PSGS) (Panorama, 2019). This chapter concludes with research questions and a discussion of the CRTPS (Hsiao, 2015) and the PSGS (Panorama, 2019), the instruments that were used to evaluate teachers' perceptions of their own cultural competence and engagement of their students.

Socioeconomic Status

According to the American Psychological Association socioeconomic status (SES) is defined as the position of an individual or group on the socioeconomic scale, which is determined by a combination of social and economic factors such as income, amount and kind of education, type and prestige of occupation, place of residence, and—in some societies or parts of society—ethnic origin or religious background (APA Dictionary of Psychology, 2nd ed.). In schools, socioeconomic status is measured and reported by the number of students in a district receiving free and reduced lunch which is determined by family self-reporting to school districts. SES reflects the social background of families and students, as well as peers in school and in the community.

SES determination in schools is often composed of indicators such as parent/guardian education level, occupation, and household income (Olsen & Huang, 2021) which dictate

whether a student receives free or reduced lunch. SES is currently studied as a variable and a predictor to explain academic achievement, but rarely in connection to student engagement or TCC (Dietrichson et al., 2017; Xuan, et al., 2019). SES reflects the social background of students, and their surrounding peers and studies suggest the environments, especially in early childhood, of students of lower SES are a major factor in low levels of student engagement and achievement (Dietrichson et al., 2017; Olsen & Huang, 2021).

In the education research literature, family SES has typically been expressed in terms of the level of parent education, parental income, eligibility for free or reduced lunch, or household possessions and resources (Eshetu, 2015; Sirin, 2005). It is recognized as one of the most robust and consistent predictors of academic achievement that has been examined (Heppt et al., 2015; White et al., 2016) though not as a predictor of student engagement. Although the relationship between family SES and student achievement sometimes varies depending on factors such as family composition (Eshetu, 2015), most research supports a strong and consistent relationship between SES and achievement across countries and cultures (Banerjee, 2016; Gabriel et al., 2016) without any research into its' impact on student engagement. For example, a meta-analysis examining 101,157 students from 6,871 schools, found medium to strong relations between family SES and student achievement (Finch & Finch, 2022, p 2; Sirin, 2005).

Xuan, et. al. (2019) stated high family SES positively influences student's academic performance and students of families possessing high SES are more likely to have better learning attitudes, implying that the "peer effect", or high school-wide SES is positively related to students' academic engagement. High SES schools' teachers also possess higher levels of collective teacher efficacy and cultural competence (Belfi et al., 2015; Goddard et al., 2004; Xuan, et al., 2019), which influences instructional strategies (Shoulders & Krei, M.S., 2015),

classroom management (de Jong et al., 2014), and teacher-student relationships (Hagenauer et al., 2015), leading to higher student engagement.

Low SES children have worse health issues, including fetal conditions, physical health at birth, chronic conditions, and mental health problems that influence educational outcomes (Dietrichson et al., 2017). Family environments are also different between high and low SES children in other aspects thought to affect educational engagement and achievement (Dietrichson et al., 2017). High SES families are more likely to provide a rich language and literacy environment (Hart & Risley, 2003), have different parenting practices, and direct additional resources to early childhood education, health care, nutrition, and enriching spare-time activities (Esping- Andersen et al., 2012). In the United States, low SES children are also less likely to attend center-based care during preschool age (Magnuson & Shager, 2010), and children of low SES parents on average face lower academic expectations from their families (Bradley & Corwyn, 2002; Slates, et al., 2012).

Low SES students tend to live in neighborhoods that are less conducive to educational success regarding peer support and role models. Also, the skills required to navigate in a disadvantaged neighborhood may be radically different from the skills needed to thrive in school (Dietrichson et al., 2017). Dietrichson et al. (2017) indicated that significant differences in cognitive development among high and low SES children are already present before reaching school age. Teachers and families alike have lower expectations of students with lower SES (Dietrichson et al., 2017).

Social injustice in the form of low SES, limited access to quality educational resources, and teachers lacking the cultural competence to successfully address the diversity in classrooms are impediments to meeting academic goals. In schools where social justice is not deeply

embedded in the culture, responding to injustice is piecemeal and reactive (Martin & Miller, 2017). Prejudice and inequality persist in institutions and are deeply ingrained in the fabric of our society and reproduced over and over in schools leading to low student engagement and success (Anyon, 2014).

There are several different potential mechanisms through which the SES composition of schools and classrooms affects students. Students from varied socioeconomic backgrounds are not equally prepared for schooling in terms of their academic readiness and non-cognitive skills. High poverty classrooms and schools are characterized by lower academic achievement and engagement, slower academic progress, and less time on learning tasks (Kahlenberg, 2004; Lagenkamp & Carbonaro, 2018). Higher SES schools have more advanced curricular offerings and more highly qualified, culturally competent teachers practicing inclusivity and communicating higher educational expectations for their students, potentially allowing for increased student achievement and engagement (Kahlenberg, 2004; Kalogrides & Loeb, 2013; Lagenkamp & Carbonaro, 2018).

White and Non-white schools

The American ideal that all public school students have equal access to appropriate curriculum and advance through college on their own merit is a myth (Wang, et al., 2023). According to Cooper (2012), as students move through primary and secondary school to college, the numbers of non-white, immigrant, ethnic minority, and low-SES youth that continues through and finishes schools shrinks disproportionately (Wang, et al., 2023). If schools employed teachers with higher levels of cultural competence this may not be the case. Teachers with higher cultural competence raise awareness of the inequities faced by non-white, immigrant, ethnic and racial minority, and low SES youth's and the lack of available resources and school engagement,

particularly at the middle and high school level (Wang, et al., 2023). For non-white students culturally competent teachers can serve to compensate for unequal opportunities, unoffered curriculum, and lacking resources (Wang, et al., 2023).

According to Aldana and Byrd (2015), a schools context provides a structured, supportive environment where students learn about race and ethnicity through cultural messaging and socialization practices within daily interpersonal interactions with classmates and teachers. Only teachers possessing cultural competence can create a classroom environment conducive to this atmosphere. Literature discussing multicultural education and teacher cultural competence in both white and non-white schools (Hughes et al., 2006; Ladson-Billings, 2014), mentions school racial socialization, referring to the presence of cultural socialization (i.e., opportunities to learn about one's own race and culture) and opportunities to gain cultural competence (i.e., learning about other races and cultures) within classroom activities (Aldana & Byrd, 2015). It is the teachers in those school buildings who are responsible for providing these opportunities and activities. Without cultural competence they cannot provide the students what they need.

Cultural socialization refers to activities that acknowledge and leverage the ethnic-racial backgrounds of teachers as resources and assets in the learning process (Aronson & Laughter, 2016). Cultural competence refers to each teacher's comfort and ability to interact positively with students from varying backgrounds while providing knowledge about different racial and cultural groups (Ponterotto, 2010; Wang, 2023). Cultural socialization and the promotion of culturally competent educators create safe educational environments where both white and non-white students can learn to appreciate their own and others' cultural backgrounds (Aldana & Byrd, 2015; Byrd, 2017; Wang, 2023).

Teachers in both white and non-white schools who possess cultural competence and instill cultural socialization may demonstrate their abilities in numerous ways, including activities during which students connect with their familial and communal histories and traditions, celebrate multicultural holidays, read books from ethnically racially diverse authors, and participate in culturally responsive lessons that delve into the sociohistorical context of systemic inequity (Wang, 2023). It is through these types of multicultural experiences that teachers communicate the value of diversity and inclusion by encouraging students to explore their own unique cultural identities while simultaneously acknowledging and appreciating the cultural distinction of other groups (Byrd, 2017; Del Toro & Wang, 2021; Smith et al., 2020).

In sum, structured, school-based opportunities for racial socialization help youth wrestle with their own and others' ethnic-racial identities and cultural backgrounds. The incorporation of these practices may be especially important in middle and high schools because of the increased sensitivity to injustice and ethnic-racial identity exploration that accompany the onset of adolescence (Hughes et al., 2006; Smith, et al., 2020; Wang,2023). Because schools socialize ethnic-racial attitudes and beliefs through interpersonal relationships and institutional policies (Aldana & Byrd, 2015), it is particularly essential that middle- and high-school educators adopt equitable school practices that support healthy ethnic-racial identity development and the exploration of others' cultural values and experiences within the school community.

Teacher Cultural Competence

Culturally responsive education (CRE) requires teachers to possess a level of cultural competence regarding their students that many do not have. The National Education Association (NEA, 2021) defines teacher cultural competence (TCC) as the ability to successfully teach students who come from cultures other than their own. Cultural competence involves

interpersonal awareness, cultural knowledge, and a skill set that together promotes impactful cross-cultural teaching (NEA, 2021). Educators who respect diversity and are culturally competent: understand, and honor the histories, cultures, languages, traditions, and child rearing practices of the communities they serve (NEA, 2021). They value children's different capacities and abilities and respect differences in families' home lives (NEA, 2021).

Culturally competent educators usually engage in three key steps when putting their cultural competence into practice (Lindo, et al., 2020). They practice cultural self-study, exploring the importance of their own upbringing and how it shapes their teaching practices; acquire cultural knowledge learning about the cultures represented in their classrooms, respect student values, make differences and view their students' differences as assets and not challenges (Lindo, et al., 2020). Lastly, they put their knowledge into practice, applying skills, strategies, and pedagogical practices to successfully work with students from diverse backgrounds (Lindo, et al., 2020). Current teacher education practices help prospective teachers to enhance their cultural awareness and sensitivity, but they do not necessarily enable teachers to translate their cultural understandings into cultural competence (Turner, 2007).

Cultural Competence Continuum

Teaching cross-culturally requires investment in the ongoing process of self-reflection, knowledge acquisition, and skill development (Lindo, et al.; 2020). Culturally competent individuals, schools, and systems value diversity, are self-aware of their culture, are knowledgeable about the nature of cultural interactions, and work to institutionalize this knowledge and adapt to the needs of their populations' diversity (National Education Association, 2008).

Cultural competence is a framework that emphasizes the need to develop individuals' self-awareness to confront their attitudes, beliefs, biases, and values, to learn and understand culturally diverse groups' needs, and translate such knowledge into culturally responsive professional practices and skills (Halpern, et al., 2022; Sue & Sue, 2013; Tomlinson-Clarke, 2013) The cultural competence continuum is a model and conceptual framework based on the seminal work of Cross et al. (1989; 2020). Cultural competence is a set of congruent behaviors, attitudes and policies that come together and enable a system, agency, or person to work effectively in cross-cultural situations (Cross et al.,1989; 2020). A culturally competent person acknowledges and incorporates the importance of culture, assesses cross-cultural relations, shows vigilance towards the dynamics that result from cultural differences, the expansion of cultural knowledge, and adapts their methods to meet culturally unique needs (Cross et al., 1989; 2020).

Cross et al. (1989) provided six levels defining the process of achieving cultural competence, which included: (1) cultural destructiveness, the most negative end of the scale (2) cultural incapacity, (3) cultural blindness, (4) cultural pre-competence, (5) cultural competence, and (6) advanced cultural competence or proficiency at the most positive end of the scale. Those at this end hold culture in high esteem and continuously seek to add to the knowledge base of culturally competent practices (Cross et al., 1989, pp. 13-18).

According to the National Center for Cultural Competence (NCCC, 2004) the aspects of the cultural competency continuum are not meant to define a person, system, or organization. It is a developmental process. The continuum is meant to be a gauge for a person or organization to measure themselves by in order achieve or maintain cultural proficiency. People and

organizations can be at different stages and different times in different situations. Even at the highest level of cultural proficiency there is room for knowledge and growth.

The NCCC (2004) stated that culturally competent individuals value diversity, recognizing that while all people have the same basic needs there are also differences and varying ways to meet these needs. Culturally competent educators are aware of their own culture and able to assess themselves in varying situations. Culturally competent individuals, leaders, systems, and organizations demonstrate acceptance and respect for all cultural differences and incorporate culturally responsive techniques in their daily practice.

Cultural Competence in Schools

For the past 20 years the student population in public schools in the United States has shifted to include more students from culturally and linguistically diverse backgrounds (Barrio, 2017; Lavin & Goodman, 2023; NCES, 2022). Today, over 50% of public-school students are culturally and linguistically diverse (Hussar et al., 2021) At the same time, the teacher workforce demographics remained around 80% White (Hussar et al., 2021; Lavin & Goodman, 2023).

The increasing diversity in schools presents many challenges for teachers to make sure students meet the academic rigors and levels of achievement now required of them. Cultural competence in education often takes superficial forms, such as an extra holiday in the calendar or an extra homework assignment on a marginalized group, due to lack of proper teacher training and background. Creating inclusive environments is more than extra work, differentiation of instruction and meeting learners where they are at. Teachers need to be sensitive to all learner profiles and must understand their students and their cultures, develop relationships, and connect with students to be able to provide them with the educational experiences they need (Kumashiro, 2015).

The New Jersey Student Learning Standards (2023) define culturally responsive practices as ones that create a supportive, inviting environment where students, particularly those who have been marginalized, feel a sense of belonging. Schools that engage in culturally responsive practices create an environment that acknowledges and embraces students' cultural referents and funds of knowledge, hold high expectations for all students and use an asset-based mindset when engaging with students. This school environment also gives students agency and voice as well as fosters critical thinking and self-reflection. In these schools, students see their cultural identities reflected in the curriculum, books, and materials (NJSLS, 2023).

Teachers must become culturally competent to exhibit openness and respect for other cultures and values, be self-reflective and conscious of their own schema and potential unconscious bias (Lopes-Murphy & Murphy, 2016). Culturally competent teachers must have a desire and willingness to pursue cross-cultural opportunities and examine norms, practices, values, and how cultures compare to one another. They support behaviors and choose approaches that are likely to generate healthy cross-cultural exchanges, plan strategies ahead, and continuously monitor these interactions (Van Dyne et al., 2009; Molina, 2013). Finally, they adjust their behaviors appropriately in varied cultural contexts (Crowne, 2008; Gullekson & Tucker, 2013; Lopes-Murphy & Murphy, 2016; Molina, 2013).

Cormier (2020) asserted that teachers lack cultural competence and the capacity to address students' academic and cultural needs because of the sociocultural gap. The sociocultural gap is the social and cultural distance between educators and non-white students or students who are minoritized or marginalized (Cormier, 2020). Concern is warranted because consequences of the sociocultural gap, consciously or unconsciously, lead to problematic teachers' beliefs, dispositions, and interactions (e.g., color blindness, cultural conflicts, myth of

meritocracy, low expectations, and deficit and context-neutral mind-sets) that negatively impact the learning experience for students who are minoritized, marginalized, and otherized within PreK–12 schools and classrooms (Milner, 2020; Cormier, 2020).

Howard (2010) believed enhancing teachers' cultural competence would increase their capacity to "gain a comprehensive understanding of how cultural knowledge is acquired, expressed, maintained, and transformed across space and time" (p. 113). Subsequently, tools are needed that empower teachers to both interrogate and assess their cultural competence (Cormier, 2020). Culturally competent teachers also need culturally competent leaders. Surely, if teachers should adjust their craft in ways that respond effectively to children's cultural learning and social needs in the classroom, as Gay (2012) suggested, then school administrators must have a similar mandate regarding the entire school culture and climate (Khalifa et al., 2016).

Culturally Competent Leadership

Research suggests not only is it important for teachers to be culturally competent, but also for their leaders to be. School leadership sets the tone for the teachers, students, and the community. A positive tone creates an environment more conducive to higher levels of student engagement and achievement (Khalifa, 2016). Beyond preparing teachers and guiding them to be culturally competent, school leaders must promote culturally responsive and competent school environments by resisting exclusionary practices, integrating student culture in all aspects of schooling, and promoting TCC and inclusivity (Khalifa et al., 2016). Nimmo et al. (2021) found that for educators to be successful in their efforts to be inclusive and equitable there must be a commitment to anti-bias education by leaders asking equity questions in interviews and implementing retention strategies to make all staff feel visible, included, and engaged in decision making (Nimmo et al., 2021). All educators must engage in critical thinking and the integration

of anti-bias education into the school culture (Nimmo et al., 2021). Curricula resources should be provided, the staff supervised and coached in anti-bias work, teacher-leaders should be empowered, and families and the community included in the school environment (Nimmo et al., 2021). Educators must share the same morals, ideals, and beliefs in social justice, equity, and inclusiveness with the leader. They must possess a level of cultural competence along with a desire to continue to increase it (Khalifa et al., 2016; Nimmo, 2021).

Culturally Competent Teaching

Culturally competent teaching involves taking students' backgrounds into account. "Teachers are crucial actors in the adoption of the multicultural education approach in schools. Determining the multicultural competence perceptions of teachers will enable the development of practices that can be put forward to create a multicultural education environment in classrooms and therefore schools" (Uslu, E. M. & Özgün, T, 2023). To build a classroom reflecting equity principles teachers possessing cultural competence acknowledge their own intersectionality and that of their students. Intersectionality investigates how various forms of oppression, discrimination, domination, and other social processes intersect and influence each other (Crenshaw, 2017). It necessitates rich learning material, for example, selecting classroom texts to provide examples of the contributions made by culturally, ethnically, and linguistically diverse people and inviting dialogue about inequity (Zoch, 2017). Building a classroom that reflects equity principles requires teachers to seek out a critical awareness of their own intersectionality, history, and identities, develop an understanding of the dynamics of institutional oppression within schools and society, and have a clear commitment to social justice (Nimmo et al., 2021).

The state of New Jersey Department of Education (2023) defines culturally responsive teaching as:

> an educator's ability to recognize students' cultural displays of learning and meaning making and respond positively and constructively with teaching moves that use cultural knowledge as a scaffold to connect what the student knows to new concepts and content to promote effective information processing. All the while the educator understands the importance of being in a relationship and having a social-emotional connection to the student to create a safe space for learning. (Hammond, 2015)

Culturally responsive teaching empowers students by focusing on their assets, and by connecting students' cultures, languages, and life experiences with instruction.

Students in schools can belong to more than one marginalized group. A student may identify as being culturally different from his or her classmates, belong to a different socio-economic group, and may also identify as gay. This student's experience would be different than someone who is of a similar cultural and socio-economic group as most of the class, but who also identifies as gay. Though these two students have an identity in common, their experiences in and around the classroom would likely be quite different because of their unique outlooks, as well as their unique social and cultural circumstances. They may not benefit from the same types of supports and would likely need educators and administration in schools to support and nurture their needs differently (Krenshaw, 2012).

Today's teachers need to be endowed with skills and abilities to operate at cognitive, emotional, and relational levels in linguistically and culturally complex settings and be able to promote acceptance and inclusion (Lavin & Goodman, 2023). This has led to the need for educational approaches that respond to the needs of students and acknowledge the diversity of

schools in the pursuit of total educational inclusion. Its objective is the integration and inclusion of ethnic minorities into all aspects of the educational experience (Lavin & Goodman, 2023). Education should act as the medium in which students' feelings of acceptance are cultivated while fostering their sense of belonging and at the same time facilitating the expression of their identities via recognizing and building upon their cultural differences through interaction (Lavin & Goodman, 2023).

Possessing cultural competency and creating a classroom environment centered on inclusion and acceptance making students feel comfortable in their learning environment, has the potential to increase student levels of achievement and engagement. On the contrary, focus on high stakes testing scores and preparation for these tests leaves little room for culturally rich material, though studies indicate that culturally competent and relevant teaching practices lead to improved student achievement (Zoch, 2017).

English Language Learners

Santamaría, et al. (2009) define cultural competence as "the integration and transformation of preconceived knowledge about individuals and groups of people into specific standards, policies, practices and attitudes used in appropriate cultural settings to increase accessibility and the quality of services" (p. 35-36). While this is often thought of in reference to different race and ethnicities or socioeconomic status, it also applies to students with different language abilities. According to Giles et al., (2020) current United States educational policies require that students who immigrate to the US or indicate an additional language take an entry English language assessment when entering public schools. If these students' scores qualify them for additional assistance in learning English are labelled as English learners (ELs) (Giles et al., 2020). Once designated, each year ELLs are then required to take a language test until they meet

a targeted score and no longer require language services. The United States Department of Education enforces these stipulations, but does not provide a unified language assessment, instead delegating this responsibility to the states and districts (Giles et al., 2020).

While recognizing the diversity of the United States ELL population Genesee et al. (2005) acknowledged that a one-size-fits-all approach did not address the needs of every ELL student. Genesee et al. (2005) sought to compile a list of characteristics for meaningful and effective ELL programing, but the diversity among ELLs made program standardization across the entire country almost impossible even as researchers suggested that policymakers recognize "the diversity of backgrounds, resources, and challenges that ELLs bring to the learning environment (often within a single classroom)" as they are making decisions for a larger audience (Genesee et al. 2005, p. 378; Giles et al., 2020). Tollefson's (2006) critical language policy (CLP) argues that language policy exacerbates inherent social inequalities and serves to perpetuate the dominant language group's interests at the expense of minority language groups (Giles et al., 2020). CLP rejects a traditional approach which asserts that language policies are designed to "[integrate] linguistic minorities into mainstream socioeconomic systems" under the guise of serving their best interests (Giles et al., 2020; Tollefson 2006, p. 42). CLP points out that language policies maintain social inequalities rather than address and reduce them (Giles et al., 2020). This research suggests that there is a definitive need for teachers working with ELL students to possess high levels of cultural competency. Without a working and beneficial standard to adhere to that addresses the true diversity of the ELL population and combat the inequities from a higher level, teachers at the classroom level need to be able to address the issues in a manner that puts ELL students at the best advantage.

Cultural proficiency is, “a way of being that enables both individuals and organizations to respond effectively to people who differ from themselves” (Lindsey, et al., 2003, p. 5). Fundamental tenets of culturally competent ELL educators are the belief that all ELLs are capable of learning and these teachers must use the diversity in the classroom by incorporating the various language and cultural experiences into their teaching practices (Brooks, 2016; Quezada et al., 2012). Culturally competent educators must believe that all English Learners can learn, acknowledge the challenges these students face, and incorporate the cultural and language experiences as essential part to keeping ELL students engaged and successful in the classroom (Lindsey et al., 2003). Cultural competence is exhibited by how educators use assessment data, deliver curriculum and instruction, interact with the community, and use professional development (Lindsey, et al., 2008). “A fundamental tenet of culturally relevant instruction is that teachers can and should draw on students’ native language and cultures” (Jiménez & Rose, 2010, p. 405). Teachers are most culturally responsive when ecological factors such as viewing the community as an asset, incorporating students lived experiences and their cultural backgrounds are included in instructional practices and various resources are utilized to engage students (Gay, 2010b; Ladson-Billings, 1995; Quezada et al., 2012).

Gay (2010b) says new teachers “do not think about their attitudes and beliefs about ethnic, cultural and racial diversity” (p. 145) and that many purposely avoid acknowledging that they do have specific beliefs choosing to avoid self-reflection. Without practicing self-reflection new teachers cannot reflect on the impact their beliefs have in the classroom. A previous study done by Bustamante et al. (2009) concluded individual values and beliefs are inconsistent with individual behaviors within the classroom. Another early study done by Cabello and Burstein (1995) reported “teaching practices do reflect teacher beliefs that, in turn, reflect their own

experiences and backgrounds" (p. 285). Gay (2009) cautions that some teachers believe that once they are aware of their own personal biases, they believe their professional growth is done and nothing more needs to be considered instead of using this self-knowledge to adopt culturally competent practices. This can be extremely detrimental for ELL students.

Research demonstrates there is a general lack of awareness about cultural competence and cultural proficiency among teachers, most especially new ones. A significant concern is that the teaching profession populace is not ethnically diverse, and this trend is continuing. This, coupled with a more culturally, racially, and linguistically diverse student population illustrates a need for teachers to not only understand diversity but to be responsive in pedagogy so that they can best serve their students (Garcia et al., 2010). Santamaría, et al. (2009) suggests that a focus on "meaningful instruction that is culturally relevant, context embedded and authentic…ELLs can overcome academic difficulties related to language and cultural differences and be successful in school" (p. 35).

What constitutes good teaching practice for linguistically diverse students continues. Some argue simply having good teaching practices are effective for all, ignoring the importance of differences in culture and language (Grant & Sleeter, 1986). Others emphasize that ethnic, racial, or linguistic groups require specific approaches reflecting their cultural background but neglect to consider the significance of individual differences within cultures (Nieto, 1992). ELL students sometimes begin their educational journey in the United States at a disadvantage due to both personal and educational factors. Many diverse student populations from a variety of cultural and linguistic backgrounds experience poverty, abuse, or other negative situations that can seriously affect their physical, cognitive, and emotional development (EE Garcia, 1995; Grant & Secada, 1990; Pallas, et al., 1989; Putnam, et al., 1995). So far research is indicating

that increased teacher efficacy and cultural competency are common denominators in ELL student engagement and success.

The Culturally Responsive Teacher Preparedness Scale

The student population in the United States is becoming increasingly diverse. According to the NCES (2018) teachers of a given race/ethnicity were more often found in schools where their race/ethnicity matched that of the student body. Conversely, in schools where most students were not White, most teachers tended to be White (NCES, 2018). These demographic numbers support the necessity for culturally responsive practices among school leadership, staff, and faculty. The Culturally Responsive Teacher Preparedness Scale (Hsaio, 2015) is the scale that will be used to evaluate the perceived level of TCC each participating teacher in the study possesses. The CRTPS was developed through exploratory factor analysis for the purpose of investigating how teachers perceive their level of cultural competency in the classroom (Hsiao, 2015). The value for Cronbach's alpha for the whole survey was .95; values for Cronbach's alpha for the of the three factors were .91, .91, and .88, respectively. The results indicated that there were high reliabilities for the whole survey instrument and the three factors (Field, 2009; Hsiao, 2015).

Hollins (1993), through analysis of reviewed literature developed seven competencies for teaching diverse populations:(a) communicating with diverse learners, (b) knowing subject and students, (c) reflective teaching, (d) identifying resources, (e) creating a supportive context, (f) developing interpersonal relationships, and (g) promoting learner performance (Hollins, 1993; Hsiao 2015, p. 242). Gay (2002) further expanded these to include: (a) developing a cultural diversity knowledge base, (b) designing culturally relevant curricula, (c) demonstrating cultural caring, (d) building a learning community, (e) establishing cross-cultural communications, and

(f) establishing cultural congruity in classroom instruction (Hsiao, 2015, p. 242). Siwatu (2006) then grouped the culturally responsive teaching competencies into four categories:(a) curriculum and instruction, (b) classroom management, (c) student assessment, and (d) cultural enrichment (p. 1087-1088). Siwatu (2006) competencies were derived from theoretical discussions and quantitative and qualitative studies that documented the practices of culturally responsive teachers, bringing the number of competencies in the four categories to 29.

Hsiao (2015) determined, according to the factor analysis, the CRTPS can be categorized into three factors: (a) curriculum and instruction, (b) relationship and expectation establishment, and (c) group belonging formation, with 18 competencies being evaluated. The results gathered from the survey responses can provide a starting point for teacher preparation programs to understand preservice teachers' levels of cultural competence. In addition, since the population of culturally and linguistically diverse students continues to increase, there is a definite need for developing the competence of culturally responsive teachers (Hsiao, 2015).-The factors and competencies can provide current teachers a roadmap to use as they work with classrooms of diverse students. School districts can also use the results of the CRTPS as a framework to discuss the characteristics of culturally responsive teaching and develop a more thorough system for culturally responsive teaching.

Student Engagement

Student engagement refers to the degree of interest, curiosity, attention, passion, and optimism that students exhibit while being taught (Roorda et al., 2017). When students positively perceive that their teachers display cultural competence regarding a topic, or subject, they are teaching and possess variable cultural competence the students enjoy and participate in class activities rigorously and communicate with their teachers more intensely. These positive,

engaging activities in the classroom help students enhance their engagement positively influencing learning outcomes (Suarta, et al., 2021).

Various factors to engage students include learning environment (Ali et al., 2018), school quality ratings (Von Stumm et al., 2021), intrinsic motivation and perceived utility (Rodríguez et al., 2020), personal innovativeness, and attitude (Abdul Rahman et al., 2020). Student engagement reflects the students' observable behaviors like listening attentively, turning in work on time, participating in discussions, attending classes, and complying with the rules and regulations (Winstone et al., 2021). A study of the research shows the importance of student engagement in enhancing their satisfaction (Alqahtani et al., 2021), performance (Tsay et al., 2020), and achievement (Mädamürk et al., 2020; Suarta et al., 2021).

Most researchers begin their studies of student engagement with the view that it does not extend outside the classroom. Classroom instruction is thought to influence students' motivation in school, this motivation predicts engagement, and student engagement is thought to mediate the association between students' motivation and learning outcomes. While studying the impact of students' engagement on their achievement and enhanced performance (Alqahtani et al., 2021; Mädamürk et al., 2020; Suarta, I.M., et al., 2021;Tsay et al., 2020) it is also necessary to explore how student engagement dispositions, population characteristics, school ecologies, and place-based, social geography might better highlight the engagement-related strengths and needs of vulnerable student populations, namely, students challenged by poverty, social exclusion, and social isolation (Lawson & Lawson, 2013).

Lawson and Lawson (2013) based their study on the federal and state policy agenda Race-to-the-Top and the idea of *College for All*, where the US wants to lead the world in students who graduate with baccalaureate degrees currently guides the most recent school

mandates, but it is quickly becoming outdated. The agenda surrounding engagement today needs to,

> facilitate new relationships and longer educational careers, encompassing successive grade levels, schools (preschools, K–12 schools), and postsecondary institutions. It must also extend outside of school boundaries because family, peer, and neighborhood ecologies exert powerful influence on students' educational opportunities and interests, as well as their aspirations for the future. (Lawson & Lawson, 2013, p. 433)

At the top of the list of important details is student engagement. Lawson and Lawson (2013) take a broad view of student engagement. They present it as the "conceptual glue that connects student agency (including students' prior knowledge, experience, and interest at school, home, and in the community) and its ecological influences (peers, family, and community) to the organizational structures and cultures of school" (p. 433). This includes sociocultural and sociological features and their processes, relative to cultural responsiveness, when researching engagement.

There are three primary assumptions about students' engagement. *One* is that engagement can be improved through pedagogy and other interventions. *Second*, that engagement is a direct pathway to student learning and *third*, that it is distinct from student motivation (Lawson & Lawson, 2013). Many studies only focus on what happens inside classrooms and schools, looking at academic and classroom engagement, when in fact, there are three indicators of engagement: (a) affective-emotional engagement, (b) cognitive engagement, and (c) behavioral engagement (Lawson & Lawson, 2013).

Affective-emotional engagement describes students' social, emotional, and psychological attachments to school, and looks at their levels of interest, enjoyment, happiness, boredom, and

anxiety during academic activity. It examines their feelings of belonging, identification and relatedness to their peers, teachers, and the school overall. Students lacking these emotional connections are less engaged and are more likely to have difficulty in school as they progress (Lawson & Lawson, 2013). This will be investigated in my study from the teachers' point of view through their responses to both surveys. Correlation has been found between affective-emotional engagement and student achievement. Poothuis, et al., (2015) found higher grades predicted increased emotional and behavioral engagement over time in schools. Students' engagement in the classroom may decrease over time not necessarily because they experience strong negative feelings (e.g., distress, shame, anxiety), but because they experience reduced positive feelings (e.g., activation, inspiration, excitement) because of low achievement or low perceived achievement in comparison to their classmates (Poothuis, et. al., 2015).

Cognitive engagement studies focus on students' psychological investments in academic work and their dispositions towards schoolwork, for example, effort exerted toward homework. It also focuses on the extent that they persist with work when it is difficult. Contrasting most engagement research, this research looks at students while they work as opposed to their thoughts about school. It investigates the ways in which students think about ideas and concepts and how they make meaning of what they are learning (Lawson & Lawson, 2013).

Behavioral engagement has a broader focus. It examines time students spend on homework or the extent they comply with school rules and behavioral disaffection, examining school drop-out literature, conduct reports, rates of absenteeism, suspensions, and class cutting (Lawson & Lawson, 2013). "These studies typically proceed with the view that measures of students' social attachments and/or their identification with school, as well as the effort and persistence students exhibit toward school tasks, are representative of factors that should be

treated analytically as facilitators of engagement" (Lawson & Lawson, 2013, p. 437). These factors are "outside" of the engagement construct and related to a school's level of cultural responsiveness. Studies generally conclude that students engaged successfully and effectively at the beginning of an academic year remain engaged throughout, whereas students who start or become disaffected, maintain, or increase disaffect (Lawson & Lawson, 2013).

Other factors, relative to cultural competence, especially true in urban and more vulnerable student populations, external to engagement, but influential of it are "highly conditional upon surrounding organizational conditions and ecologies, namely, factors that are external to the student" (Lawson & Lawson, 2013, p. 452). They are organizational ecology and social geography, such as school climate and culture, cultural congruence (support students experience while participating in an activity), cultural relevance in school activities and curriculum, cultural correspondence (extent to which a task, activity or setting activates or connects with a student's prior knowledge or experience), involvement in school-sponsored activities, participation in extracurricular activities (ECAs), population demography like youth-community engagement, family life/involvement and socioeconomic status (SES) (Lawson & Lawson, 2013). When students feel a connection to school and school related activities, they are apt to see more value in it. Lawson and Lawson (2013) conversely state when "(a) Students perceive that their prospects for desired action are poor (low attainment value); (b) students perceive that they lack the interests, skills, resources, and opportunities to prosper; and (c) students perceive that they do not belong in an activity or activity setting" (p. 452) they can experience disaffection.

Culturally competent practices focus on students' connectedness to teachers, their environment, and pedagogy as well as school culture and climate. These are also factors

currently believed to be associated with student engagement (Aronson & Laughter, 2016). This research focus on how cultural competence in classrooms affects engagement may provide new ideas and practices for school leaders to employ thereby making schools more culturally responsive and students more engaged which studies show lead to higher student achievement (Aronson & Laughter, 2016).

Bottiani et al. (2020) investigated a baseline student report from a sample of urban, mostly black high school students. The goal was to attempt to determine a link between school student engagement and the role of culturally responsive teachers and caring school police officers. High rates of racial discrimination can affect mental health and prevent students from engaging in schoolwork and activities. Societal impacts, such as lack of equitable access to healthy and safe schooling also affect engagement, impacting social-emotional and academic functioning, particularly for urban black and Latin students transitioning from middle school to high school (Bottiani et al., 2020).

Seventy percent of urban youth of color report experiencing some form of discrimination and over 40% perceived those experiences as somewhat disturbing (Bottiani et al., 2020). Racial discrimination across settings has been linked with negative outcomes at school including poorer academic motivation, engagement, and school bonding" (Bottiani et al., 2020, p. 1020). Relationships with supportive, culturally competent adults at school may help address the effects of racial discrimination through empathy for students' experiences, intersectionality, and lived experiences outside of school in their homes and communities. Specifically, supportive adults at school may leverage their cultural competence to support student engagement (Bottiani et al., 2020).

Engagement has been linked to a range of student academic, social, and behavioral outcomes. In theory, teachers engaged in culturally competent practices (CCP), by engendering caring, reciprocal relationships with their students are successful in increasing student engagement. CCP include tapping into students' cultural and contextual funds of knowledge as resources for learning and practices that teach to and through students' cultural strengths (Bottiani, et al. 2020). Conclusions of Bottiani et al., (2020) suggested training and coaching for teachers that increase use of CCPs related to school engagement may decrease disconnection and increase engagement.

The Panorama Survey on Student Grit

The PSGS (2015) will be used to evaluate how teachers perceive their students' levels of engagement in the classroom. Gehlbach (2014) developed the Panorama Student Grit Survey as part of a larger group of surveys to evaluate student social-emotional learning (SEL) in 2014 (PanoramaEd, 2015). The original grit scale included eight items and had a reliability estimate of a = .66. According to Panorama Education (n.d.-a), the survey "helps educators understand students' SEL competencies and perceptions of how they felt supported at school" (p. 3). The Panorama Student Survey was designed for a multitude of schools, districts, networks, and departments of education to gather data about teaching, learning, and school climate. Teachers, school and district administrators, and department heads can administer the survey both about the classroom and about the school to all types of K-12 school settings and to communities serving students from a range of socioeconomic backgrounds.

Purpose and Research Questions

The following research questions were explored to examine the potential benefits of studying teacher cultural competency and student engagement relative to the school demographics of

teacher experience, population of white students, SES (poverty levels), and percentage of ELL students.

1. Is there a relationship between responses to the CRTPS and PSGS scores?
2. Do CRTPS scores differ among teachers with varying levels of experience?
3. Do CRTPS scores differ between teachers in white and nonwhite schools?
4. Do CRTPS scores differ among teachers from schools with higher levels of poverty?
5. Do CRTPS scores differ among teachers from schools with higher levels of ELL students?
6. Do PSGS scores differ among teachers with varying levels of experience?
7. Do PSGS scores differ between white and nonwhite schools?
8. Do PSGS scores differ among teachers from schools with higher percentages of free lunch?
9. Do PSGS scores differ among teachers from schools with higher percentages of ELL students?

Chapter 3 discusses the research design for the study. It details the study sample, participant recruitment and selection, ethical standards adhered to as well as the data collection and analysis conducted. It concludes with the limitations, delimitations, and summary of findings.

Chapter 3: Research Design Overview

Gay (2018) proposed that the professional preparation of teachers should expose them to critical analysis of their own attitudes and beliefs about cultural diversity within the context of schools. They should receive guided practice in adopting new beliefs that are more compatible with embracing and promoting cultural diversity in P-12 curriculum and instruction Gay (2018). Gay (2018) sought to answer the question would teaching attitudes and behaviors differ if they emphasized the talent, potential, and strengths of culturally diverse students, families, and communities instead of their problems and pathologies?

Phalet et al. (2004) emphasized the educational position of ethnically minoritized students has been attributed to a mismatch between home and school cultures. Advocates of culturally relevant education **(**CRE**)** have therefore argued that academic knowledge and skills should be connected to students' lived experiences within a supportive environment. This way, learning becomes more meaningful and engaging (Gay, 2000; 2002; 2018). The same ideals should be applied to teachers. Educators' responses to students and curriculum implementation are connected to their lived experiences and can influence their actions and responses in the classroom.

In this study participating teachers provided demographic information about how their lived experiences influenced their classroom teaching styles and student interactions. It also attempted to capture the teachers' perceived level of their own cultural competency. If teachers can understand students' backgrounds and teach in a culturally responsive way, several critical educational problems might be alleviated, such as low academic engagement and achievement as well as alleviate the disproportionate representation of minoritized students in special education (Blanchett, 2006; Gay, 2002a). Implementing culturally responsive teaching does not only

improve the engagement and success of diverse students (Gay 2002a; Plata 2008), but benefits all students (Barnes, 2006; Hsiao, 2015; Plata, 2008).

Some evidence supports the efficacy of culturally responsive teaching and teacher cultural competence (Gay, 2012). Cultural competence is a complex skill requiring ongoing learning and reflection. While teachers in schools with diverse student populations may have more exposure to different cultures, it does not guarantee higher cultural competence. This study aimed to determine differences in teacher scores on the Culturally Responsive Teacher Preparedness Scale (Hsiao, 2015) and Panorama Student Grit Survey (PanoramaEd, 2019) based on experience and various school demographics, including ethnicity, SES, and English-language learners. Study results can be used to inform school district teaching and hiring practices, teacher and staff professional development and curriculum development.

The research questions were:

RQ1: Is there a relationship between responses to the CRTPS and PSGS?

RQ2: Is there a difference in CRTPS scores among teachers with varying levels of experience?

RQ3: Do CRTPS scores differ between teachers in white and nonwhite schools?

RQ4: Do CRTPS scores differ among teachers from schools with higher levels of poverty?

RQ5: Do CRTPS scores differ among teachers from schools with higher levels of ELL students?

RQ6: Is there a difference in PSGS scores among teachers with varying levels of experience?

RQ7: Do PSGS scores differ between white and nonwhite schools?

RQ8: Do PSGS scores differ among teachers from schools with higher levels of poverty?

RQ9: Do PSGS scores differ among teachers from schools with higher percentages of ELL students?

Research Design

The rationale for conducting quantitative research using the Culturally Responsive Teacher Preparedness Scale (CRTPS) (Hsiao, 2015) and the Panorama Student Grit Survey (PSGS) (PanoramaEd, 2019) was to collect data for teacher cultural competency and student engagement. The purpose of my study was to examine teacher scores on the CRTPS and the PSGS in the context of teacher experience and varied school demographics including ethnicity, English Language Learners, and socioeconomic status. School ethnicity is defined by percentage of white students and school poverty levels have been determined by the percentage of free lunch as noted in the New Jersey School Enrollment Data for the 2022-2023 school year.

For RQ 1 a correlation analysis was conducted to establish if there was a relationship between the CRTPS and the PSGS and the strength of any relationship. A Pearson correlation measures the relationship between two variables that have been measured on interval or ratio scales and requires the relationship between each pair of variables to be linear (Conover & Iman, 1981). The value that measures the strength of linkage is called correlation coefficient, which is represented typically as the letter *r*. A positive *r* value expresses a positive relationship between the two variables while a negative *r* value indicates a negative relationship. A correlation coefficient of zero indicates no relationship between the variables (Field, 2017).

For RQ 2 through RQ 9 a nonexperimental design framed by *ANOVA* was used to examine the variance between the independent variables previously discussed: teacher experience, ethnicity, percentage of ELL students, and SES. I used *ANOVA* to explore differences in mean scores for the CRTPS and PSGS with respect to the four independent variables. This analytical approach was previously used to explore the relationships of variables in schools in Germany and in the United States (Shavit et al., 2007). McFatter's (2017) research

demonstrated that the *ANOVA* model allows for a thorough comparative analysis of the independent variables. Furthermore, the rationale for this study was based on conclusions drawn from Shavit et al.'s (2007) research suggesting that there is a need for more comparative educational research.

Study Sample

The study sample consisted of 103 participating educators. The educators taught middle school grades 6-8 in the state of New Jersey. Participation in this research was voluntary, and the study's participants comprised a convenience sample.

Participant Recruitment

Participants of this study were recruited from middle schools in all school districts in New Jersey. Permission for participation was gained via email from New Jersey school district superintendents using the letter provided in Appendix A. After gaining superintendent permission school principals were contacted via email (Appendix B) to gain permission to solicit participation in my survey from educators in grades 6-8 all subjects in their schools. Teachers in participating districts were then emailed by their principals asking them to participate in the survey gaining passive informed consent through the Qualtrics survey platform (Appendix C). A minimum of 100 teachers was necessary for conducting this research and every teacher who completed both surveys was included in the sample. This inclusion criterion was established to maintain consistency with previous researchers who examined relationships among school poverty levels and school achievement (Fancera & Bliss, 2011; Fancera, 2009; Hoy et al., 2002). Participating teachers responded to the CRTPS and PSGS providing their county, district, school, grade, subject taught and information on their perceived levels of cultural competence and their students' levels of engagement.

Participant Selection Process

Participants in the study were educators from any subject across grades 6-8 in participating schools. Criteria for inclusion was all teachers who responded to the entire survey, including demographic information, the CRTPS and the PSGS. Those who responded only to the CRTPS, only provided information on their cultural competence without student engagement and were excluded. Any participant who responded only to the PSGS only provided information about their students' levels of engagement and therefore were also excluded. Teachers who did not provide requested demographic information were also excluded. Whether teacher cultural competency influences students' engagement and whether that influence is different with diverse demographics such as teacher experience, percentage of white and nonwhite students, SES, or presence of ELL students cannot be determined without completely responding to the surveys.

Ethical Standards

To ensure ethical standards were met, the researcher gained William Paterson University Institutional Review Board (IRB) approval prior to contacting any New Jersey school districts. This was completed to ensure that the purpose of the study, recruiting methods, participants, and quantitative survey methods are within the interest of the subjects' welfare, rights, and their privacy is protected.

The researcher obtained passive informed consent from all study participants prior to commencing data collection. Each study participant was sent the link to the Qualtrics survey via an email from their principals. Passive informed consent was gained when the participant clicked yes and agreed to complete the survey (Appendix C). Teacher experience levels were gained from survey responses and school and student demographic information was obtained from the 2022/2023 New Jersey School Enrollment Data report.

Data Collection

Primary Measures

Two quantitative instruments were used to collect primary quantitative data, the Culturally Responsive Teacher Preparedness Scale (CRTPS) (Hsiao, 2015) and the Panorama Student Grit Survey (PSGS) (PanoramaED, 2014). The CRTPS is a multidimensional scale to examine teachers' sense of readiness to execute culturally responsive teaching practices (Hsiao, 2015). To measure student engagement teachers were asked to complete the PSGS (PanoramaEd, 2014). This survey measured the teachers' perceptions of how well students can persevere through setbacks to achieve important long-term goals. The PSGS is a short, five question survey that worked best combined with the final section of the CRTPS. The CRTPS and the PSGS were combined to be user friendly and to focus on two areas of my study, TCC and student engagement. The results of the two surveys were used to conduct Pearson correlation analysis for RQ 1 and *ANOVA* analysis for RQ 2 through 9.

Culturally responsive teachers are culturally responsive in their classroom management and instruction techniques acknowledging the diversity of their student population daily. They quickly identify students' needs, communicate with students and parents, design and implement curricula and teaching, create a caring and supporting setting and enrich students' diverse culture (Hsiao, 2015). The value for Cronbach's alpha for the whole survey was .95; values for Cronbach's alpha for the of the three factors were .91, .91, and .88, respectively. The results indicated that there were high reliabilities for the whole survey instrument and the three factors (Field, 2009; Hsiao, 2015). The CRTPS has 18 items to identify competencies: (a) curriculum and instruction, (b) classroom management, (c) student assessment, and (d) cultural enrichment (Hsiao, 2015). It uses a 6-point Likert Scale, ranging from unprepared to fully prepared, respectively.

To measure student engagement teachers were asked to complete the PSGS (PanoramaED, 2014). This survey measures the perceptions of how well students can persevere through setbacks to achieve important long-term goals. The PSGS contains five items using a 5-point Likert scale ranging from not engaged to extremely engaged. The questions ask teacher perceptions of how well students can persevere and achieve long-term goals.

Secondary Measures

To measure SES, student poverty levels were determined using free lunch data obtained from the NJDOE Fall Enrollment Report for the 2022-2023 school year. The percentages of white and nonwhite students and ELL students came from the NJDOE Fall Enrollment Report for the 2022-2023 school year. Teacher experience levels were gained from survey responses.

Data Analysis

The survey data from the CRTPS and the PSGS were analyzed and transformed into descriptive and inferential statistics to provide a concise summary. Data analysis included an examination of the following: SES (student poverty levels), percentages of white and nonwhite students, percentages of ELL students, and teacher experience. Statistical Program for the Social Sciences (SPSS) was used to assist with the analysis of the surveys. Descriptive statistics were computed to provide a sample overview and to establish normal distribution. SPSS statistical software from William Paterson University was used to conduct Pearson product moment correlation to determine a relationship between the CRTPS and PSGS and ANOVA analysis was used to determine the variance between CRTPS and PSGS scores and white and nonwhite populations, teacher experience, SES, and percentage of ELL students.

To conduct the analysis, teachers were put into five categories based on years of experience: 0-5 years, 6-11 years, 12-17 years, 18-23 years, and 24-32 years. School poverty levels were categorized into five groups based on the percentage of students receiving free lunch

using ranges 0-10%, 11-20%, 21-40%, 41-60% and 61-100%. To analyze whether there is a difference in CRTPS and PSGS scores in white and nonwhite population schools were put into four categories based on the population of white students: 0-25%, 26-50%, 51-75%, and 76-100%. ELL were categorized into four groups: 0%, 0.1-1%, 1-5%, and over 5%.

Research Question 1

RQ1: Is there a relationship between responses to the CRTPS and PSGS?

One hundred three teachers responded completely to both the CRTPS and PSGS. The researcher analyzed the responses to both surveys using the responses given by participating teachers. To examine RQ1, a correlation analysis was conducted using Pearson Product Moment Correlation. Simple bivariate correlation was analyzed to determine the relationship between the covariance of the CRTPS and PSGS. Strength of relationships was analyzed by the relationship, as measured by *r*, on a scale of (-)1.0 to (+)1.0, with results closer to zero representing weaker relationships. The correlation analysis provided insight into the connection between teachers' perception of their own cultural competence and their students levels of engagement in the classroom.

Research Question 2:

RQ2: Is there a significant difference in CRTPS scores among teachers with varying levels of experience?

The researcher used SPSS ANOVA to analyze the variance in responses to the CRTPS between teachers of differing levels of experience. Teachers were grouped into five categories based on years of experience: 0-5 years, 6-11 years, 12-17 years, 18-23 years, and 24-32 years. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of teacher experience and responses to the

CRTPS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value is greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between years of experience and responses to the CRTPS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between the years of experience and responses to the CRTPS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 3:

RQ3: Do CRTPS scores differ between teachers in white and nonwhite schools?

The researcher used SPSS ANOVA to analyze the variance in responses to the CRTPS between teachers in schools with higher white student populations. Schools were grouped into four categories based on the population of white students: 0-25%, 26-50%, 51-75%, and 76-100%. Descriptive statistics were calculated using ANOVA were used to assess whether there were statistically significant differences in the means of white population and responses to the CRTPS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between the percentage of white students and responses to the CRTPS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between the percentage of white students and responses to the CRTPS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 4:

RQ4: Do CRTPS scores differ among teachers from schools with higher levels of poverty?

The researcher used SPSS ANOVA to analyze the variance in responses to the CRTPS between teachers in schools with higher poverty levels. School poverty levels were categorized into five groups based on the percentage of students receiving free lunch using ranges 0-10%, 11-20%, 21-40%, 41-60% and 61-100%. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of poverty levels and responses to the CRTPS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between the poverty level and responses to the CRTPS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between poverty levels and responses to the CRTPS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 5

RQ 5: Do CRTPS scores differ among teachers from schools with higher percentages of ELL students?

The researcher used SPSS ANOVA to analyze the variance in responses to the CRTPS between teachers in schools with higher percentages of ELL students. ELL were categorized into four groups: 0%, 0.1-1%, 1-5%, and over 5%. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of

percentage of ELL students and responses to the CRTPS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between the percentage of ELL students and responses to the CRTPS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between the percentage of ELL students and responses to the CRTPS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 6:

RQ6: Is there a significant difference in PSGS scores among teachers with varying levels of experience?

The researcher used SPSS ANOVA to analyze the variance in responses to the PSGS between teachers of differing levels of experience. Teachers were grouped into five categories based on years of experience: 0-5 years, 6-11 years, 12-17 years, 18-23 years, and 24-32 years. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of teacher experience and responses to the PSGS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis is true and there was no significant relationship between years of experience and responses to the PSGS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between the years of experience and responses to the PSGS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 7:

RQ7: Do PSGS scores differ between white and nonwhite schools?

The researcher used SPSS ANOVA to analyze the variance in responses to the CRTPS between teachers in schools with higher white student populations. Schools were grouped into four categories based on the population of white students: 0-25%, 26-50%, 51-75%, and 76-100%. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of white population and responses to the CRTPS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between the percentage of white students and responses to the CRTPS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between the percentage of white students and responses to the CRTPS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 8:

RQ8: Do PSGS scores differ among teachers from schools with higher levels of poverty?

The researcher used SPSS ANOVA to analyze the variance in responses to the PSGS between teachers in schools with higher poverty levels. School poverty levels were categorized into five groups based on the percentage of students receiving free lunch using ranges 0-10%, 11-20%, 21-40%, 41-60% and 61-100%. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of poverty levels and responses to the PSGS. This helped determine if the variations in responses were more

than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between the poverty level and responses to the PSGS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between poverty levels and responses to the PSGS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Research Question 9:

RQ 5: Do PSGS scores differ among teachers from schools with higher percentages of ELL students?

The researcher used SPSS ANOVA to analyze the variance in responses to the PSGS between teachers in schools with higher percentages of ELL students. ELL were categorized into four groups: 0%, 0.1-1%, 1-5%, and over 5%. Descriptive statistics calculated using ANOVA were used to assess whether there were statistically significant differences in the means of percentage of ELL students and responses to the PSGS. This helped determine if the variations in responses were more than what would be expected due to random chance. If the *p*-value was greater than 0.05 ($p>0.05$) the null hypothesis was true and there was no significant relationship between the percentage of ELL students and responses to the PSGS. If *p*-value was less than or equal to 0.05 the ($p\leq0.05$) the null hypothesis was rejected and there was a significant relationship between the percentage of ELL students and responses to the PSGS. The *F*-statistic was calculated to compare the average variability between the groups and Post Hoc analysis was conducted to determine the difference between the means.

Limitations

"Response bias is the effect of nonresponses on survey estimates (Fowler, 2014). Bias means that if nonrespondents had responded, their responses would have substantially changed the overall results" (Creswell, 2020, p. 218). Based on the assumption that those who returned surveys in the final weeks of the response period were nearly all nonrespondents analysis was conducted to determine if average responses change. If the responses begin to change, there is potential for response bias. It was also assumed that teachers from each sample NJ middle school who participated in this study accurately and honestly responded to each of the items included on the CRTPS (Hsaio, 2015) and the PSGS (PanoramaEd, 2014). Data regarding several variables, including percentages of white and non-white students, free lunch, and ELL students were collected from archived data sources. It was assumed that all data were accurately reported to and recorded in the New Jersey School Enrollment Report for the 2022-2023 school year by the responsible parties.

Delimitations

Any teachers who did not respond completely to either the CRTPS, the PSGS or provide all requested demographic information were excluded from this study. The purpose of this exclusion was because unanswered questions would provide the researcher with incomplete cultural competence, engagement, or demographic data potentially skewing study results. Conducting a mixed methods study, potentially with student perspective, may have created a more robust study, but for these study purposes the researcher wanted solely to investigate if there were any connections between the dependent and independent variables.

Summary

This research study utilized quantitative methods to investigate the impact of the dependent variable of teacher cultural competency and on the independent variables of student engagement, teacher level of experience, percentage of white and nonwhite students, poverty levels and percentages of ELL students. The quantitative study used two surveys to identify and document teachers' perceptions of their cultural competency and its relationship to the variables. This study allowed the researcher to rigorously explore the research questions to help inform potential future teaching practices across middle schools. Chapter 4 discusses in detail the findings discovered outlined by research question. It concludes with a brief summary of the overall results.

Chapter 4: Results

The aim of this study was to determine if there was a relationship between the CRTPS and PSGS as well as differences in teacher scores on the CRTPS and PSGS based on experience and various school demographics, including ethnicity (white and non-white schools), SES (poverty level), and English-language learners (ELL). Primary data measuring TCC, student engagement and teacher level of experience were collected from two surveys, the Culturally Responsive Teacher Preparedness Scale (CRTPS) (Hsiao, 2015) and the Panorama Survey for Student Grit (PSGS) (PanoramaED, 2019). Secondary data were collected from the New Jersey Fall Student Enrollment Report for the 2022-2023 school year to quantify percentages of white and ELL students and poverty levels in the form of percentage of free lunch recipients. One hundred three middle school teachers from 14 middle schools in 13 different districts throughout the state of New Jersey provided responses to both surveys providing the necessary data on teacher experience, cultural competence, and student engagement. This section contains a comprehensive report of the results obtained from Pearson correlation analysis, Analysis of Variance (ANOVA), post-hoc and Paired Samples t-Tests relative to each of the nine research questions.

Research Question 1

RQ1: Is there a relationship between responses to the CRTPS and PSGS?

RQ 1 was asked to determine if there was a relationship between responses to the CRTPS and PSGS surveys. Pearson correlation analysis was conducted to determine the relationship between the two. The CRTPS is the scale used by teachers to self-report their own perceived levels of cultural competence in the classroom and the PSGS is the scale used by

teachers to report the levels of engagement they saw in their students. The sample size of 103 was the same for both.

Descriptive statistics were calculated for the CRTPS and PSGS. The mean (*M*) CRTPS score was 4.66 and the standard deviation (*SD*) was 0.81. The *M* PSGS score was 2.98 and the *SD* was 0.77. The result of the correlation analysis was examined based on an alpha value of .05. A positive correlation was found between CRTPS and PSGS scores ($r = .45$, $r^2 = .20$), which indicated a moderately strong relationship with potential practical benefit. This suggests that as CRTPS increases, PSGS tends to increase. The effect size, represented by the coefficient of determination (r^2), indicated a potential practical benefit for the relationship between TCC and student engagement.

Research Question 2

RQ2: Is there a difference in CRTPS scores among teachers with varying levels of experience?

RQ 2 was asked to determine if there was a difference between teacher responses to the CRTPS and their levels of experience. The descriptive statistics for the dependent variable CRTPS, and independent variable, teacher experience, are presented in Table 2. The sample was categorized into five groups (1-5) based on years of experience. Group 1 was 0-5 years of experience, group 2 was 6-11 years, group 3 was 12-17 years, group 4 was 18-23 years and group 5 was 24-32 years. The ANOVA was examined based on an alpha of .05. The results of the ANOVA were not significant, $F(4, 98) = 0.19$, $p = .94$, indicating the differences in CRTPS among teacher levels of experience were all similar.

Table 2

Descriptive Statistics for CRTPS by Experience

Experience	*M*	*SD*	*n*
1	4.63	0.89	23
2	4.74	0.55	28
3	4.56	1.01	27
4	4.67	0.865	15
5	4.74	0.595	10
Total	4.66	.811	103

Research Question 3

RQ3: Do CRTPS scores differ between teachers in white and nonwhite schools?

RQ 3 was asked to determine if there was a difference between responses to the CRTPS and the percentage of white students in the schools. Table 3 contains a summary of the descriptive statistics. The descriptive statistics for the dependent variable CRTPS and independent variable percentage of white students are presented in Table 3. The sample was categorized into four groups (1-4) based on percentage of white students. Group 1 was 0-25% white, group 2 was 26-50% white, group 3 was 51-75% white, group 4 was 76-100% white. An ANOVA was conducted to determine whether there were differences in CRTPS by percentage of white students in a school. The ANOVA was examined based on an alpha value of .05 and was not significant, $F(3, 99) = 1.39$, $p = .250$ indicating no difference in teacher cultural competency among populations of white and nonwhite students.

Table 3

Descriptive Statistics for CRTPS by White

White	*M*	*SD*	*n*
1	4.41	0.78	28
2	4.69	0.94	29
3	4.79	0.75	33
4	4.81	0.68	13
Total	4.66.	0.81	103

Research Question 4

RQ4: Do CRTPS scores differ among teachers from schools with higher levels of poverty?

RQ 4 was asked to determine if there was a difference between teacher responses to the CRTPS and school poverty levels as determined by percentage of free lunch. Table 4 contains a summary of the descriptive statistics. The mean and standard deviations for the dependent variable of CRTPS and independent variable of percentage of free lunch are presented in Table 4. The sample was separated into five categories (1-5) based on percentage of students receiving free lunch. Group 1 was 0-10% free lunch, group 2 was 11-20% free lunch, group 3 was 21-40% free lunch, group 4 was 41-60% free lunch and group 5 was 61-80% free lunch.-The ANOVA was examined based on an alpha value of .05. The results were not significant, $F(4, 98) = 1.40$, $p = .240$, indicating the differences in CRTPS among percentage of fee lunch were all similar.

Table 4

Descriptive Statistics for CRTPS by Free-Lunch

Free Lunch	*M*	*SD*	*n*
1	4.71	0.92	28
2	4.70	0.75	34
3	4.48	1.03	18
4	4.96	0.35	14
5	4.23	0.52	9
Total	4.66	0.81	103

Research Question 5

RQ5: Do CRTPS scores differ among teachers from schools with higher levels of ELL students?

RQ 5 was asked to determine if there was a difference between teacher responses to the CRTPS and percentage of ELL students in the schools. Table 5 contains a summary of the descriptive statistics. The mean and standard deviations for the dependent variable CRTPS and independent variable percentage of ELL students are presented in Table 5. The sample was separated into four categories (1-4) based on percentage of ELL students. Group 1 was 0% ELL population, group 2 was 0.1-1% ELL population, group 3 was 1-5% ELL population, group 4 was over 5% ELL population. The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(3, 99) = 1.64$, $p = .184$, indicating no differences in teacher cultural competency among percentages of ELL students.

Table 5

Descriptive Statistics for CRTPS by ELL

ELL	*M*	*SD*	*n*
1	4.30	0.88	18
2	4.83	0.64	22
3	4.72	0.96	40
4	4.68	0.55	23
Total	4.66	0.81.	103

Research Question 6

RQ6: Is there a difference in PSGS scores among teachers with varying levels of experience?

RQ 6 was asked to determine if there was a difference between teacher responses to the PSGS and levels of teacher experience. Table 6 contains a summary of the descriptive statistics. The mean and standard deviations for the dependent variable of the PSGS and teacher experience are presented in Table 6. The sample was divided into five groups (1-5) based on years of experience, with varying sample sizes *(n).* Group 1 was 0-5 years of experience, group 2 was 6-11 years, group 3 was 12-17 years, group 4 was 18-23 years and group 5 was 24-32 years. The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(4, 98) = 0.56$, $p = .689$.

Table 6

Descriptive Statistics for PSGS by Experience

Experience	*M*	*SD*	*n*
3	2.99	0.79	27
5	3.19	0.36	10
4	2.89	0.73	15
2	3.09	0.76	28
1	2.83	0.94	23
Total	2.98	0.77	103

Research Question 7

RQ7: Do PSGS scores differ between white and nonwhite schools?

RQ 7 was asked to determine if there was a difference between teacher responses to the PSGS and percentage of white students in schools. Table 7 contains a summary of the descriptive statistics. The results of the ANOVA were not significant, $F(3, 99) = 1.73$, $p = .166$. The mean and standard deviations for the dependent variable of the PSGS and percentage of white students are presented in Table 7. The sample was categorized into four groups (1-4) based on percentage of white students, with varying sample sizes *(n)*. Group 1 was 0-25% white, group 2 was 26-50% white, group 3 was 51-75% white, group 4 was 76-100% white. The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(3, 99) = 1.73$, $p = .17$.

Table 7

Descriptive Statistics for PSGS by White

White	*M*	*SD*	*n*
1	2.76	0.87	28
2	2.97	0.83	29
3	3.07	0.71	33
4	3.31	0.43	13
Total	2.99.	0.78.	103

Research Question 8

RQ8: Do PSGS scores differ among teachers from schools with higher levels of poverty?

RQ 8 was asked to determine if there was a difference between teacher responses to the PSGS and student poverty levels based percentage of free lunch in schools. Table 8 contains a summary of the descriptive statistics. The mean and standard deviations for the dependent variable PSGS and percentage of free lunch are presented in Table 8. The sample was categorized into five groups (1-5) based on percentage students receiving free lunch. Group 1 was 0-10% free lunch, group 2 was 11-20% free lunch, group 3 was 21-40% free lunch, group 4 was 41-60% free lunch and group 5 was 61-80% free lunch. The ANOVA was examined based on an alpha value of .05 and the results were not significant, $F(4, 98) = 0.39$, $p = .818$.

Table 8

Descriptive Statistics for PSGS by Free Lunch

Free Lunch	*M*	*SD*	*n*
1	3.12	0.62	28
2	2.93	0.86	34
3	2.86	0.96	18
4	3.01	0.73	14
5	3.00	0.62	9
Total	2.99	0.78.	103

Research Question 9

RQ9: Do PSGS scores differ among teachers from schools with higher percentages of ELL students?

RQ 9 was asked to determine if there was a difference between teacher responses to the PSGS and percentage of ELL students in schools. Table 9 contains a summary of the descriptive statistics while Table 10 shows the results of the ANOVA which indicated the percentage ELL accounted for approximately 10% of the variance in PSGS responses. Post-hoc *t*-test was calculated between each group combination to further examine the differences among the variables. The mean and standard deviations for the dependent variable of the PSGS and percentage ELL students are presented in Table 9. The sample was categorized into four groups (1-4) based on percentage of ELL students, with varying sample sizes *(n)*. Group 1 was 0% ELL population, group 2 was 0.1-1% ELL population, group 3 was 1-5% ELL population, group 4 was over 5% ELL population.

Table 9

Descriptive Statistics for PSGS by ELL

ELL	*M*	*SD*	*n*
1	2.47	1.02	18
2	3.22	0.66	22
3	3.08	0.68	40
4	3.01	0.68	23
Total	2.99	0.78.	103

The results of the ANOVA for PSGS are presented in Table 10, which indicated there was a difference between PSGS scores and the groups that represented various percentages of English Language Learners. The effect size, eta squared (η_p^2), was 0.10 indicating ELL explained approximately 10% of the variance in PSGS. While the results showed a difference, the effect size is less then 15%, indicating little potential practical benefit.

Table 10

Analysis of Variance Table for PSGS by ELL

	SS	*df*	*F*	*Mean Square*	η_p^2
Between Groups	6.42	3	3.86*	2.14	0.10
Within Groups	54.92	99		0.56	
Total	61.33	102			

* $p < .05$

Post-hoc

A *t*-test was calculated between each group combination to further examine the differences among the variables based on an alpha of .05. The Tukey HSD p-value adjustment was used to correct for the effect of multiple comparisons on the family-wise error rate. For the main effect of ELL, the mean of PSGS for 1 ($M = 2.47$, $SD = 1.02$) was significantly smaller than for 2 ($M = 3.22$, $SD = 0.66$), $p = .010$. For the main effect of ELL, the mean of PSGS for 1 ($M = 2.47$, $SD = 1.02$) was significantly smaller than for 3 ($M = 3.08$, $SD = 0.68$), $p = .025$. No other significant effects were found. This information indicates that the null hypothesis can be rejected and there is evidence in schools where there is a smaller ELL population engagement is increased in these students.

Summary

Chapter Four summarized the results of the data analysis conducted relative to each of the nine stated research questions. The aim of this study was to determine differences in scores on the Culturally Responsive Teacher Preparedness Scale (CRTPS) and Panorama Student Grit Survey (PSGS) based on experience and various school demographics, including ethnicity (white and non-white schools), SES (poverty level), and English-language learners (ELL).

The results for the Pearson Correlation conducted for RQ 1 suggest the scores on the CRTPS and PSGS are related. Results indicated as CRTPS increases PSGS tends to increase. This suggests as teachers rated their cultural competency higher the more engaged, they indicated their students were. A 20% effect size indicates there is potential practical benefit for further research.

The results for RQ 2- RQ 5 investigating the responses to the CRTPS, and the sampled demographics indicated there is no difference in a teacher's level of cultural competence among

level of experience, percentage of white and ELL students and SES. There were also no differences between groups for RQ 6-RQ 8, between teacher scores on the PSGS and level of experience, percentage of white students, or school poverty levels. RQ 9 results suggested the scores on the PSGS, and percentage of ELL students were related indicating that the smaller the ELL population the more engaged the students were.

Chapter Five will expand on the results and discuss them in relation to the previous literature. The implications for teacher practice, school district teaching and hiring practices, teacher and staff professional development and curriculum development will also be discussed. Lastly, future research based on the results from Chapter Four are discussed in Chapter Five.

Chapter 5: Discussion

The purpose of this study was to examine teacher scores on the Culturally Responsive Teacher Preparedness Scale and the Panorama Student Grit Survey in the context of teacher experience and varied school demographics including ethnicity, English Language Learners, and socioeconomic status. Popularly held DEI beliefs in today's educational world are that consistent, active acknowledgment and recognition of culture, background, intersectionality, and diversity in school culture, climate, and curriculum will lead to increased student engagement, especially in areas with higher poverty levels (Martin & Miller, 2017). Researchers of culturally relevant education and TCC see social justice in the classroom and schools as the site for social change (Martin & Miller, 2017). Researchers widely believe and some have concluded that students learn better through experience and relation to the real world (Gay, 2010). Teachers possessing higher levels of cultural competency are more apt to use culturally relevant practices in their everyday classroom interactions therefore producing students who are more thoroughly engaged in their learning, and empowered intellectually, socially, and emotionally (Abacioglu et al., 2019; Gay 2000; 2002; 2010a; 2013; Khalifa, 2016; 2018; Ladson-Billings, 1994).

Current literature is based on predominantly qualitative research limited to teacher reported experience and opinions while lacking rigorous analysis of the efficacy and impact of TCC (Aberdeen et al., 2013; Durey et al., 2017; Hollinsworth, 2016; Jackson et al., 2013; MacDonald et al., 2023; Moodie & Patrick, 2017; Nakata, et al., 2014). This study was an effort to support these statements and add to the minimal number of quantitative studies done on teacher cultural competency. This chapter begins with a discussion of the findings, followed by implications for practice and recommendations for future research. It closes with the study's conclusions.

Discussion of Findings

Primary data measuring TCC, student engagement and teacher level of experience were collected from two surveys, the Culturally Responsive Teacher Preparedness Scale (CRTPS) (Hsiao, 2015) and the Panorama Survey for Student Grit (PSGS) (PanoramaED, 2019). Secondary data were collected from the New Jersey Fall Student Enrollment Report for the 2022-2023 school year to quantify percentages of white and ELL students and poverty levels in the form of percentage of free lunch recipients. One hundred three middle school teachers from 14 middle schools in 13 different districts throughout the state of New Jersey responded to both surveys providing the necessary data on teacher experience, cultural competence, and student engagement. A Pearson product moment correlation coefficient was computed for RQ 1 to determine if there was a relationship between the CRTPS and PSGS. ANOVA and post hoc t-tests, when necessary, were conducted for the remaining variables in research questions 2-9 to investigate if there were differences between CRTPS and PSGS scores based on teacher experience, percentage of white and ELL students and SES.

Correlation analysis indicated the CRTPS scores were positively related with PSGS scores showing when teachers rated themselves more culturally competent, they also rated their students more engaged in the classroom. This supports the literature indicating students who have highly culturally competent teachers, who make them feel valued and help connect students' lived experiences to what is taught in the classroom, are more engaged in the learning environment and materials as well as more likely to succeed (Abacioglu et al. 2019, Gay 2010b, Krenshaw 2017, Nieto, 2004; Nimmo et al., 2021). The results also support the research that culturally competent teachers center their classrooms on inclusion and acceptance, making students more comfortable in their learning environment therefore leading to highly engaged and

successful students (Zoch, 2017). It is consistent with the findings which discussed the necessity of exploring how student engagement dispositions, population characteristics, school ecologies, cultural competency, culturally relevant education, and place-based, social geography might better highlight the engagement-related strengths and needs of vulnerable student populations, namely, students challenged by poverty, social exclusion, and social isolation (Lawson & Lawson, 2013**)** as well as the literature that states employing teachers with a high level of cultural competency will aid in increasing engagement and success among students (Vasquez-Salgado et al., 2021).

The positive relationship between the CRTPS and PSGS also supports studies stating structured, school-based opportunities for racial socialization help youth wrestle with their own and others' ethnic-racial identities and cultural backgrounds (Hughes et al., 2006; Smith, et al., 2020; Wang, 2023). The relationship found is consistent with the literature indicating it is particularly essential for middle- and high-school educators to adopt equitable school practices in support of healthy ethnic-racial identity development and the exploration of others' cultural values and experiences within the school community (Aldana & Byrd, 2015). The findings of this study suggest that there are potential practical benefits to be gained from further exploration of the effects of implementing culturally competent practices aimed at enhancing student engagement. By better understanding and incorporating aspects of cultural competence into educational practices, there is the potential to create more inclusive and effective learning environments that promote greater student involvement, interest, success, and motivation.

Research questions 2-4 all suggested no difference between CRTPS scores, teachers' experience levels, the white student population, SES, and the percentage of English Language Learner (ELL) students. This first suggests that more experienced teachers were not more

culturally competent than less experienced ones. This is not consistent with the literature stating teachers with less experience are less likely to be culturally competent, less likely to be self - reflective, a tenant of cultural competency, or whose self-reflection stops with the recognition of their own biases and does not translate into their daily classroom practice (Abacioglu et al. 2019; Gay 2009; Landsman 2006; Sleeter 2012). Gay (2009) cautioned that teachers who recognized their personal bias believed their professional growth related to TCC was complete and nothing more needed to be done with the self-knowledge to adopt culturally competent practices. It also was not consistent with findings that new teachers "do not think about their attitudes and beliefs about ethnic, cultural, and racial diversity" and may purposely avoid acknowledging that they have specific beliefs (Gay, 2010b, p. 145). This study is also not consistent with research which demonstrated that there was a lack of awareness about cultural competency and proficiency among teachers, especially less experienced ones as well as the belief that new teachers understand the importance of teaching with diversity but lack the skillset to adequately meet student diversity needs (Garcia et al., 2010; Johnson et al., 2021).

The ANOVA results for RQ 3 showed no difference between CRTPS scores among percentage of white students in school. Fifty percent of the schools represented by this study's sample of teachers had a majority nonwhite student enrollment. Therefore, this finding does not provide support for Wang's research that indicated all public school students do not have access to appropriate culturally relevant curriculum, especially where minority populations are larger (Wang, et al., 2023). It does, however, support studies stating culturally competent and responsive teachers are more engaging and showcase diversity, inclusion, and democracy in white and non-white classrooms and society at large (Hamdan & Coloma, 2022). Previous research stating teachers, particularly in white schools, are acknowledging diversity exists in

classrooms, but not employing the necessary tactics to use it as a tool for student success or engagement is also not supported by these findings (Sleeter, 2012). This study also does not support the suggestion that teachers in predominantly white schools trivialize, essentialize and substitute culture for political analysis of inequalities indicating that the percentage of white and nonwhite students does not influence a teacher's level of cultural competency or tendency to practice it in a classroom (Sleeter, 2012).

In this study SES was defined as and measured by the percentage of students who received free lunch (Sirin, 2005; Eshetu 2015). As previously stated in Chapter 2, SES is recognized as one of the most robust and consistent predictors of academic achievement that has been examined (Heppt et al., 2015; White et al., 2016) though not as a predictor of student engagement. Although the relationship between SES and student achievement sometimes varies (Eshetu, 2015) most research supports a strong and consistent relationship between SES and achievement across countries and cultures without any research into the impact on student engagement (Banerjee, 2016; Gabriel et al., 2016). Even though 21% of this study's sample teachers worked in schools that had more than 50% of their school's enrollment receiving free lunch, the ANOVA indicated no differences between CRTPS scores and poverty level. This result is inconsistent with the literature which indicated teachers and families alike have lower expectations of students with lower SES and high poverty classrooms and schools are characterized by lower academic engagement, slower academic progress, and less time on learning tasks (Dietrichson et al., 2017; Kahlenberg, 2004; Lagenkamp & Carbonaro, 2018). Prior research, also refuted by this finding, indicated higher SES schools have more advanced curricular offerings and more highly qualified, culturally competent teachers practicing inclusivity and communicating higher educational expectations for their students, potentially

allowing for increased student achievement and engagement (Kahlenberg, 2004; Kalogrides & Loeb, 2013; Lagenkamp & Carbonaro, 2018).

RQ 5 indicated no difference between CRTPS scores among groups of ELL students refuting the idea that the United States Department of Education enforcement of language testing and targeted score stipulations for all ELL students without providing a unified language assessment to the states and districts negatively affects ELL students (Giles et al., 2020). Giles (2020) also suggests a definitive need for of highly culturally competent educators in ELL classrooms while study results indicated one does not impact the other. This finding does however support work which argues simply having good teaching practices will naturally include culturally responsive practices and is all that is necessary (Grant & Sleeter, 1986).

A review of available research indicates culturally competent teachers in white and nonwhite schools not only use justice oriented and transformative curriculum and pedagogy, but also provide welcoming and inclusive classroom spaces leading to increased student engagement (Hamdan & Coloma, 2022). In her seminal work Gay (2002) discussed how culturally responsive teaching implies designing culturally relevant curricula and employing methods of culturally responsive instruction to make learning more relevant and effective. RQ 6 - 9 investigated the difference between students' levels of engagement and teacher levels of experience, percentage of white students and ELL students, as well as SES. RQ 6 asked whether PSGS scores differed among teachers with different levels of experience, and none was discovered. This finding is inconsistent with the belief that teachers with more experience possess higher levels of cultural competence and can and do relate material and curriculum to students' lived experiences keeping them more highly engaged in the classroom (Abacioglu et al., 2019). It also does not support the study finding newer teachers are lacking in cultural

competence and understand culturally responsive education (CRE) as cultural celebration, relegating attention to culture to the margins of instruction, while maintaining low academic expectations for students, and ignoring the lived culture of the school, classroom, and power relations (Sleeter, 2012).

SES reflects the social background of students and their surrounding peers. RQ 8 found no difference in PSGS scores among various percentages of free lunch students. This finding does not provide support for studies suggesting environments in which students of lower SES exist are a major factor in low levels of student engagement (Dietrichson et al., 2017; Olsen & Huang, 2021). It does not support work stating schools with lower SES have limited resources and an abundance of teachers lacking cultural competence who possess lower expectations for low SES students and therefore less engaged student populations (Martin & Miller, 2017; Xuan, et al. 2019). Lastly, RQ 8 does not support findings stating high family SES positively influences student's academic performance and are more likely to have better learning attitudes, implying that the "peer effect", or high school-wide SES is positively related to students' academic engagement (Xuan, et al.,2019). However, this finding supports research which indicated SES was not a predictor of student engagement (Heppt et al., 2015; White et al, 2016).

This study previously stated Tollefson's (2006) critical language policy (CLP) argued that language policy exacerbates inherent social inequalities and serves to perpetuate the dominant language group's interests at the expense of minority language groups (Giles et al., 2020). CLP also rejects the assertion that language policies are designed to "[integrate] linguistic minorities into mainstream socioeconomic systems" under the guise of serving their best interests (Giles, et al., 2020; Tollefson 2006, p. 42). RQ 9 found differences between PSGS scores and smaller populations of ELL students in groups 1-3. Of the 103 teachers sampled, 86%

taught in schools with ELL populations less than 10%. ELL was found to account for 10% of the variance in PSGS scores to indicate that smaller percentages of ELL students were more highly engaged. This supports research suggesting there is definitive need for teachers working with ELL students to possess high levels of cultural competency (Giles et al., 2020). RQ 5 showed no difference between teacher cultural competency and the ELL population while RQ 1 indicated the more culturally competent a teacher was the more engaged their students were. This implies teachers of smaller ELL populations may be more able to practice cultural competency indicating future research may yield different results.

This finding supports the tenets of culturally competent ELL educators, the first one stating they must believe that all ELLs are capable of learning. The second tenet states ELL teachers must use the diversity in the classroom by incorporating the various language and cultural experiences into their teaching practices to keep students engaged (Brooks, 2016; Quezada et al., 2012). Culturally competent educators must believe that all ELL students can learn, acknowledge the challenges these students face, and incorporate the cultural and language experiences as essential part to keeping ELL students engaged and successful in the classroom (Lindsey et al., 2003).

Equity, Fairness, and Social Justice

Studying teacher cultural competence and student engagement is a critical step towards creating a more equitable, fair, and just education system where every student can succeed. Culturally competent teachers understand and respect the diverse backgrounds of their students. They recognize and value the unique cultural identities of each student. These teachers ensure that all students have equal access to learning opportunities helping to promote equity by addressing disparities that may exist due to cultural differences. Culturally competent teachers

strive to create a classroom environment where all students feel valued and included. They adapt their teaching methods and classroom environments to reflect the cultural diversity of their students, thus providing all students with the opportunity to learn and excel, regardless of their race, ethnicity, or socioeconomic status.

Fostering cultural competence among teachers works towards dismantling systemic barriers that hinder the academic success of marginalized groups. Culturally competent teachers are better equipped to challenge stereotypes, biases, and discrimination in the classroom, creating a more just learning environment. They advocate for inclusive practices and policies that support the needs of all students, promoting social justice within the educational system.

Implications for Practice

While this quantitative study showed no differences between responses to the CRTPS and demographics of teacher experience, percentage of white and ELL students, and SES, it did show a positive relationship between the scores on the CRTPS and PSGS indicating there is a potential practical benefit for practice. Practicing culturally responsive pedagogy in classrooms can have positive implications for both students and schools (Abacioglu et al., 2019; Gay, 2010b; Hamdan & Coloma 2022). The study's results also indicate teachers are practicing CRE and believe they are culturally competent. It also supports the finding that TCC and CRE are practiced by teachers amongst all student populations (Hamdan & Coloma, 2022).

Culturally responsive pedagogy involves adapting teaching methods and content to align with the cultural backgrounds of students, enhancing the relevance and engagement of the learning experience (Abacioglu et al., 2019; Gay, 2010a). Educators practicing culturally responsive pedagogy develop a heightened awareness of the diverse needs of their students, contributing to a more respectful and inclusive educational environment (Cormier, 2020; Nimmo

et al., 2021; Uslu, E. M., & Özgün, T, 2023). The study's findings indicate that teachers who rated themselves more culturally responsive, as measured by the CRTPS, also reported higher levels of student engagement, measured by responses to the PSGS.

In our current political climate students need to feel recognized and included. Previous studies indicate culturally responsive pedagogy fosters an inclusive and diverse learning environment (Cormier, 2020; Nimmo et al., 2021; Uslu, E. M. & Özgün, T., 2023). It acknowledges and values the various cultures present in the classroom, promoting a sense of belonging for students from different backgrounds (Aronson & Laughter, 2016; Hamdan & Coloma, 2022; Khalifa, 2016; Lopes-Murphy & Murphy, 2016; Wang, 2023). The positive relationship between CRTPS scores and PSGS scores supports the findings that TCC and CRE are necessary (Abacioglu et al., 2019; Aronson & Laughter, 2016; Gay, 2000, 2002,2010a, 2010b, 2013, 2018; Hamdan & Coloma, 2022; Khalifa, 2016; Lopes-Murphy & Murphy, 2016; Wang, 2023;).

The study’s findings could be useful in identifying at risk students in certain situations in the classroom, developing targeted intervention strategies, or tailoring program or training initiatives for teachers on cultural competence and CRE. Workshops can be offered on the topics of understanding different cultures, addressing biases, and fostering inclusivity. Schools should encourage self-reflection among staff to identify and address personal biases. In the classroom teachers can be conscious of the use of inclusive language and foster open communication including the diverse perspectives of the students. School administration may find this information valuable when making decisions related to resource allocation, curriculum design or policy development. When researching new curriculum schools and teachers can attempt to

include diverse perspectives and voices, incorporating literature, history and cultural studies from various regions and local communities.

Lastly, teachers possessing cultural competency promote the social-emotional well-being of their students by taking their own and their students' backgrounds into account contributing to a positive and supportive classroom climate (Krenshaw, 2017; Zoch, 2017). Teachers with high cultural competency can also support the social-emotional well-being of students by recognizing and addressing cultural factors that may impact their emotional experiences leading to more highly engaged students (Krenshaw, 2017; Zoch, 2017). In summary, the implications of practicing culturally responsive pedagogy and employing teachers with high cultural competency has the potential to improve student engagement and feelings of inclusivity in the classroom.

Future Research

CRTPS and PSGS scores were positively related in this study and responses to the PSGS showed a difference in engagement in small populations of ELL students. The relationship between the two survey instruments indicates that further research is necessary to see what potential influence cultural competency and culturally relevant pedagogy have in schools. Research could include conducting this study with a larger sample across grades, curriculums areas and school districts. In relation to the PSGS and ELL students a more in depth, mixed methods study could be conducted into the effects of TCC on ELL populations specifically.

A mixed methods study interviewing teachers of smaller ELL populations would provide a more comprehensive, nuanced, and practical approach to understanding and addressing the dynamics within the ELL classroom. By using both quantitative and qualitative methods, researchers can gain a more holistic understanding of what part TCC plays in the classrooms. Quantitative data can provide numerical insights into the extent of cultural competence among

teachers and its impact on ELL students' academic performance, while qualitative data can offer insights into the attitudes, perceptions, and experiences of both teachers and students. Quantitative data can help identify patterns, trends, and correlations, while qualitative data can help explain these findings by uncovering the underlying reasons and contextual factors influencing teacher-student interactions and academic outcomes. Qualitative methods, such as interviews, focus groups, or observations, can capture elements that quantitative measures might overlook. Qualitative methods allow exploration of the lived experiences, perspectives, and voices of teachers and ELL students in greater depth. Mixed methods studies can provide actionable insights for policymakers, educators, and stakeholders. By examining both quantitative data and qualitative experiences of teachers and students, recommendations can be tailored to address specific needs and challenges in promoting cultural competence and supporting ELL students effectively.

Low SES, limited access to quality educational resources, and teachers lacking the cultural competence are impediments to meeting academic goals. In schools where social justice is not deeply embedded in the culture, responding to injustice is piecemeal and reactive (Martin & Miller, 2017). Prejudice and inequality persist in institutions and are deeply ingrained in the fabric of our society and reproduced over and over in schools (Anyon, 2014) leading to low student engagement and success. Further quantitative study could be conducted comparing high SES districts with low SES districts.

Cooper (2012) states as students move through primary and secondary school to college, the numbers of non-white, immigrant, ethnic minority, and low-SES youth that continues through and finishes schools shrinks disproportionately (Wang, et al., 2023). Quantitative research could also be conducted categorizing white and nonwhite populations of students into

their specific races and ethnicities while also obtaining teacher race and ethnicity and experience level to observe the potential effects of or relationships between teacher cultural competency and the varied populations of students.

Cross et al. (1989) provided six levels defining the process of achieving cultural competence, which included: (1) cultural destructiveness, the most negative end of the scale (2) cultural incapacity, (3) cultural blindness, (4) cultural pre-competence, (5) cultural competence, and (6) advanced cultural competence or proficiency at the most positive end of the scale (p. 13-18). Most teachers in this study rated themselves higher on the cultural competence continuum, which Cross et al., (1989) says is not possible. The National Center for Cultural Competence (2004) suggests cultural competence is a developmental process and the continuum a gauge for people to measure themselves upon in various situations to achieve or maintain cultural proficiency. It also suggests people can be at different stages at different times in different situations (NCCC, 2004). This definition suggests teacher's levels of cultural competence may change in different settings and situations like the leadership styles of Northouse (2021). Northouse (2021) suggests leaders all possess different leadership styles and that these styles can change in different scenarios. Further qualitative or mixed methods study may be necessary to determine if there are similarities.

Lastly, further study can be conducted on the influences of TCC on student engagement and achievement. Mixed methods research can be conducted to obtain first-hand accounts from teachers on their culturally competent practices. Cultural competence in education often takes superficial forms, such as an extra holiday in the calendar or an extra homework assignment on a marginalized group, due to lack of proper teacher training and background (Gay, 2010b). Creating inclusive environments is more than extra work, differentiation of instruction

and meeting learners where they are at (Kumashiro, 2015). A mixed methods study would help in determining if teachers are truly culturally competent or possess this limited view of what it means to practice cultural competency and culturally relevant education.

Conclusion

Two conclusions can be drawn from the results of this study. *First*, a relationship was found to exist between scores on the CRTPS and PSGS, indicating that as teachers rated themselves more culturally competent, they also said their students were more engaged and implying a potential practical benefit. *Second*, a difference between small groups of ELL students and the PSGS was found indicating smaller classrooms of ELL students were more engaged. The effect size of 10% did not imply a potential practical benefit for educators.

A review of previous research indicated cultural competence and culturally relevant pedagogy are necessary elements in education (Gay, 2012; Hamdan & Coloma, 2022; Ladson-Billings, 1994; Sleeter, 2012;). Culturally competent teachers are necessary in classrooms for minority students to be successful (Dietrichson et al., 2017; Olsen & Wang, 2021). These findings in conjunction with previous studies indicate schools may want teachers to investigate cultural competency further to address increasing student diversity and meet the needs of a changing demographic, make education relevant to students' lives, improve relationships, reduce disparities and achievement gaps, and create a more inclusive culture and climate. In summary, this study found implementing culturally relevant practices and promoting teacher cultural competency supports a more inclusive, equitable, and effective educational environment that benefits all students, regardless of their cultural backgrounds.

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Appendix A

Dear Superintendent,

I am a doctoral candidate enrolled in the Doctor of Education in Leadership program at William Paterson University, located in Wayne, New Jersey. The purpose of this email is to ask for permission to contact principals of grade 6, 7 and 8 in your district to recruit teachers for participation in my research.

The purpose of my study is to determine if there are relationships between teacher cultural competency, socioeconomic status, student engagement and student achievement and if they are predictors of student engagement and achievement. The design of this study requires me to send the following Qualtrics survey, https://wpunj.qualtrics.com/jfe/form/SV_bfRWaELQYRkQgB0 to teachers of all subjects in grades 6, 7 and 8.

Teacher participation is voluntary, and all data collected through Qualtrics will remain anonymous. Risks associated with participation in the interviews are minimal and no greater than those encountered in everyday life. A benefit of participating in this study is an enhancement of the general knowledge of this study area.

If you agree to allow your teachers to participate in this study, please respond via my university email (roodd1@student.wpu.edu). I will then contact your principals in order for them to share my surveys with their teachers.

Please contact me at your earliest convenience if you have any questions about this research. Thank you for considering this request.

Sincerely,

Deirdre Marie Rood
Doctoral Candidate
Department of Educational Leadership and Professional Studies
William Paterson University
1600 Valley Road
Wayne, NJ 07470
Roodd1@student.wpunj.edu

Appendix B

Dear Principal,

I am a doctoral candidate enrolled in the Doctor of Education in Leadership program at William Paterson University, located in Wayne, New Jersey. I have gained permission from your superintendent to survey teachers in your school.

The purpose of my study is to determine if there are relationships between teacher cultural competency, socioeconomic status, student engagement and student achievement and if they are predictors of student engagement and achievement. The design of this study requires me to send Qualtrics surveys to teachers of all subjects in grade 6, 7 and 8.

Teacher participation is voluntary, and all data collected through Qualtrics will remain anonymous. Teachers will only be asked their grade level, content area and what district they are from. Risks associated with participation in the interviews are minimal and no greater than those encountered in everyday life. A benefit of participating in this study is an enhancement of the general knowledge of this study area.

If you agree to allow your teachers to participate in this study, please forward the survey contained in this link, https://wpunj.qualtrics.com/jfe/form/SV_bfRWaELQYRkQgB0 to your grade 6, 7 and 8 teachers.

Please contact me at your earliest convenience if you have any questions about this research. Thank you for considering this request.

Sincerely,

Deirdre Marie Rood
Doctoral Candidate
Department of Educational Leadership and Professional Studies
William Paterson University
1600 Valley Road
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Roodd1@student.wpunj.edu

Appendix C

William Paterson University
Project Title: Exploring the Effects of Teacher Cultural Competence on Student Engagement in Diverse Educational Landscapes
Principal Investigator: Deirdre Marie Rood
Investigator's Phone Number: 646-556-****
Faculty Sponsor: Dr. Samuel Fancera
Faculty Sponsor Phone Number:
Department: Educational Leadership and Professional Studies
Protocol Approval Date:
IRB Contact Phone Number: 973-720-2852

This Qualtrics survey concerns questions regarding cultural competency and student engagement in your classroom. It is being conducted to fulfill the requirements of dissertation research for a doctorate in educational leadership. I understand that my participation is voluntary, and I may stop completing the survey at any time and I do not have to answer any question(s) I choose not to answer.

The risks associated with my completing this survey are minimal, meaning the risks involved are no greater than those encountered in everyday life, and I accept them. Benefits of my participation in this study are enhancement of the general knowledge of this study area and I accept them.

I understand that any data collected as part of this study will be stored in a safe and secure location, and that this data will be destroyed when this research is completed or when the data is no longer needed by the investigator.

I understand that I will be an anonymous participant in this study, that no one, including the investigators, will be able to connect my responses to me. I understand that my identity will not be revealed in any way through the way that data and findings are reported. To protect my identity, I will not include my name in any of my responses.

I understand that by providing consent for this study I am also providing consent for my anonymized responses to be included in datasets that may be used in the future the investigator of this study or other investigators for research related to the purpose of this research study.

By providing consent for this study, I am confirming that I am at least 18 years old.

Consent:

If I do not want to complete this survey, I will select "no" and click continue.

If I want to participate, I will select "yes" and click continue.

Appendix D

The Culturally Responsive Teacher Preparedness Scale

Yun-Ju Hsiao, Washington State University Tri-Cities, USA

The survey instrument contains 18 statements and uses four aspects to identify competencies: (a) curriculum and instruction, (b) classroom management, (c) student assessment, and (d) cultural enrichment (Hsiao, 2015). The CRTPS uses a 6-point Likert Scale, ranging from unprepared to fully prepared, respectively.

I am able to:

1. infuse the curriculum and thematic units with the culture of students represented in the classroom.
2. review and assess curricula and instructional materials to determine their multicultural strengths and weakness, and relevance to students' interest and instructional needs, and revise them if necessary.
3. develop a repertoire of instructional examples that are culturally familiar to students to serve as a scaffold for learning.
4. find ways to support language acquisition and enhance culturally and linguistically diverse students' comprehension of classroom tasks
5. use a variety of assessment techniques, such as self-assessment, portfolios, and so on, to evaluate students' performance in favor of cultural diversity.
6. design assessments to complement the culturally responsive pedagogical strategies that were employed during instruction.
7. assess culturally diverse students' readiness, intellectual and academic strengths and weaknesses, and development needs.
8. utilize a variety of instructional methods to match students' learning preferences in learning the subject matter and maintaining their attention and interest in learning.
9. know how to communicate with culturally diverse students and their parents or guardians.
10. structure classroom-based meetings that are comfortable for parents.
11. foster meaningful and supportive relationships with parents and families, and actively involve them in their students' learning.
12. use non-traditional discourse styles with culturally diverse students in an attempt to communicate in culturally responsive ways.
13. communicate expectations of success to culturally diverse students.
14. establish expectations for appropriate classroom behavior in considering students' cultural backgrounds to maintain a conducive learning environment.
15. develop and maintain positive, meaningful, caring, and trusting relationships with students.
16. create a warm, supporting, safe, and secure classroom environment for culturally diverse students.
17. create a community of learners by encouraging students to focus on collective work, responsibility, and cooperation.
18. provide students with knowledge and skills needed to function in mainstream culture.

Panorama Survey for Student Grit

1. If your students have a problem while working towards an important goal, how well can they keep working?

   Not well at all Slightly well Somewhat well Quite well Extremely well

2. How often do your students stay focused on the same goal for several months at a time?

   Almost never Once in a while Sometimes Frequently Almost always

3. Some people pursue some of their goals for a long time, and others change their goals frequently. Over the next several years, how likely are your students to continue to pursue one of their current goals?

   Not at all likely Slightly likely Somewhat likely Quite likely Extremely likely

4. When your students are working on a project that matters a lot to them, how focused can they stay when there are lots of distractions?

   Not at all focused Slightly focused Somewhat focused Quite focused Extremely

5. If your students fail to reach an important goal, how likely are they to try again?

   Not at all likely Slightly likely Somewhat likely Quite likely Extremely likely

Vita

Deirdre Marie Rood

Education: Doctor of Education, William Paterson University of New Jersey, 2024

William Paterson University, 2021

Monmouth University, 2001