

Winter 1-29-2024

## Culturally Responsive Teaching and Learning Achievement

Jose Rivera

Follow this and additional works at: [https://digitalcommons.spu.edu/soe\\_etd](https://digitalcommons.spu.edu/soe_etd)



Part of the [Bilingual, Multilingual, and Multicultural Education Commons](#), and the [Curriculum and Social Inquiry Commons](#)

---

### Recommended Citation

Rivera, Jose, "Culturally Responsive Teaching and Learning Achievement" (2024). *Education Dissertations*. 80.

[https://digitalcommons.spu.edu/soe\\_etd/80](https://digitalcommons.spu.edu/soe_etd/80)

This Dissertation is brought to you for free and open access by the Education, School of at Digital Commons @ SPU. It has been accepted for inclusion in Education Dissertations by an authorized administrator of Digital Commons @ SPU.

Culturally Responsive Teaching and Learning Achievement

Jose A. Rivera

Seattle Pacific University

Culturally Responsive Teaching and Learning Achievement

By Jose Rivera

A dissertation submitted in partial fulfillment

Of the requirements for the degree of

Doctor of Education

Seattle Pacific University

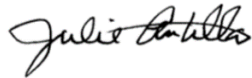
2024

Approved by



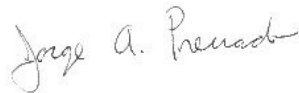
---

(Nyaradzo Mvududu, EdD, Chairperson, Dissertation Committee)



---

(Julie Antilla, PhD Committee Member)



---

(Jorge Preciado, PhD, Committee Member)

Program Authorized to Offer Degree

---

School of Education

Date

---

January 29, 2024



---

(Nyaradzo Mvududu, Ed.D., Dean, School of Education)

## Copyright Page

In presenting this dissertation in partial fulfillment of the requirements for the Doctoral degree at Seattle Pacific University, I agree that the library shall make its copies freely available for inspection. I further agree that extensive copying of this dissertation is allowable only for scholarly purposes, consistent with “fair use” as prescribed in the U.S. Copyright Law. Requests for copying or reproduction of this dissertation may be referred to University Microfilms, 1490 Eisenhower Place, P.O. Box 975, Ann Arbor, MI 48106, to whom the author has granted “the right to reproduce and sell (a) copies of the manuscript in microfilm and/ or (b) printed copies of the manuscript from microfilm.”

Signature      *Jose Rivera*

Date            January 29, 2024

## **Acknowledgment**

Throughout the doctoral program at Seattle Pacific University, I have received guidance, support, mentoring and belief from many brilliant faculty members. Dr. Nyaradzo Mvududu has been integral to my success as my dissertation chair and mentor. She was always accessible for anything I needed and advocated on my behalf and championed the work to create equitable opportunities for all children, especially traditionally marginalized student populations. She was pivotal in shaping the direction of this dissertation. Your guidance, constructive feedback, and dedication to my academic development have been truly remarkable.

I would also like to thank my dissertation committee, Dr. Julie Antilla and Dr. Jorge Preciado, for the advice, encouragement and support. Your valuable input during committee meetings and discussions has been enlightening. I would also like to extend my thanks to all the professors, mentors, and colleagues who have influenced my academic journey, providing guidance and encouragement along the way.

To my Family and Friends. I want to recognize you with profound gratitude and love. Your unwavering support, encouragement, and belief in me have been the driving force behind this academic journey. Through the highs and lows, you have been my pillars of strength, offering me the warmth of your understanding and the light of your unwavering faith.

To my parents, who instilled in me the values of curiosity, perseverance, hard work and the pursuit of knowledge, I owe the very foundation upon which this work

stands. Your sacrifices and ceaseless encouragement have shaped me into the person I am today. This achievement is as much yours as it is mine.

To my siblings, for being my confidants and the voices of reason in moments of doubt, I am deeply grateful. Your presence has filled my life with joy and meaning.

To my dearest friends, you have been my source of laughter, solace, and inspiration. Your friendship has made the academic challenges easier to bear and the victories sweeter to celebrate.

To my mentors, advisors, and educators, your guidance and expertise have been instrumental in shaping the ideas presented in this dissertation. I am indebted to you for sharing your knowledge and nurturing my intellectual growth.

To all my loved ones who have stood by me, even when I was buried under a pile of books or lost in the labyrinth of research articles, your patience and understanding have been invaluable.

This work is a testament to the collective efforts of those who have believed in me. It is a reflection of the love and support that have illuminated my path throughout this academic endeavor.

Si Se Pude!

## **Dedication**

This work is dedicated to the children whose lives will be touched and changed for the better by the research presented in this dissertation, you are the inspiration behind my work. Your potential, your brilliance, your dreams, and your futures have been at the forefront of my mind and heart throughout this academic endeavor. It is my hope that this work contributes in some small way to creating a brighter and more equitable world for you. This dissertation is dedicated to all of you with profound gratitude and boundless love. You are the true heartbeat of this journey, and your existence has given it meaning and purpose. True equity for ALL.

## Table of Contents

### Contents

<b>Copyright Page</b> .....	<b>ii</b>
<b>Acknowledgment</b> .....	<b>iii</b>
<b>Dedication</b> .....	<b>v</b>
<b>Table of Contents</b> .....	<b>i</b>
<b>List of Tables</b> .....	<b>iii</b>
<b>List of Appendices</b> .....	<b>v</b>
<b>Abstract</b> .....	<b>3</b>
<b>Chapter One: Introduction</b> .....	<b>2</b>
Background of Study .....	2
Problem Statement .....	5
Theoretical/Conceptual Framework .....	7
Purpose Statement .....	9
Research Method and Questions/Hypothesis .....	10
Research Questions/Hypothesis .....	10
Research Design .....	12
Significance of the Study.....	13
Definition of Terms .....	17
Organization and Paper Structure .....	19
<b>Chapter Two: Review of the Literature</b> .....	<b>21</b>
Assets-Based Pedagogies .....	24
Culturally Responsive Teaching .....	24
Culturally Relevant Pedagogy .....	27
Culturally Sustaining Pedagogy .....	28
Multicultural Education .....	30
Critical Analysis .....	35
<i>The Value of Culture and The Many Rings of Culture</i> .....	35
<i>Cultural Competence</i> .....	38
<i>Racial Equity</i> .....	40
<i>Neuroscience and Culturally Responsive Teaching</i> .....	51
<i>Quality Trusting Relationships</i> .....	53
<i>High Expectations and High Supports</i> .....	61



<i>Elevating Student Voice</i> .....	64
<i>Teacher Bias and Preservice Teachers</i> .....	67
<b>Chapter Three: Methods</b> .....	<b>75</b>
Purpose and Research Questions .....	76
Research questions/Hypothesis .....	76
Population.....	78
Sample Size .....	79
Research Design.....	80
Instrumentation .....	82
Data Collection Procedures .....	85
Data Analysis.....	86
Research Ethical Considerations.....	89
Conclusion/Summary.....	91
<b>Chapter Four: Results</b> .....	<b>92</b>
Research Questions/Hypothesis.....	93
Analysis by Instruction Subscale for ESSD .....	102
Conclusion.....	108
<b>Chapter 5: Summary and Discussion</b> .....	<b>110</b>
Summary of Findings .....	111
Discussion .....	113
Implications.....	125
Recommendations.....	129
Limitations .....	131
Further Research.....	136
Conclusion.....	139

**List of Tables**

<b>Table 1.....</b>	<b>96</b>
<b>Table 2.....</b>	<b>98</b>
<b>Table 3.....</b>	<b>99</b>
<b>Table 4.....</b>	<b>100</b>
<b>Table 5.....</b>	<b>100</b>
<b>Table 6.....</b>	<b>101</b>
<b>Table 7.....</b>	<b>101</b>
<b>Table 8.....</b>	<b>101</b>
<b>Table 9.....</b>	<b>102</b>
<b>Table 10.....</b>	<b>103</b>
<b>Table 11.....</b>	<b>104</b>
<b>Table 12.....</b>	<b>105</b>
<b>Table 13.....</b>	<b>106</b>
<b>Table 14.....</b>	<b>107</b>
<b>Table 15.....</b>	<b>107</b>
<b>Table 16.....</b>	<b>107</b>

**Table 17..... 108**

**Table 18..... 108**

	<b>List of Appendices</b>	
<b>Appendix A .....</b>		<b>157</b>

## **Abstract**

Over the last decades the United States demographics reflect an increase in student diversity and multilanguage learners have changed the landscape of the education system. Educators are having a difficult time connecting, reaching, and teaching many of these diverse and multilingual learners. As a result, culturally and linguistically diverse students are not successful in school and are pushed out of secondary schools at an alarming rate. The United States educational system faces a glaring discrepancy of teacher and student demographics. In America 84% of teachers are White not Hispanic, only 6% of teachers are Latino/Hispanic, 8% are Black and less than 1% are Asian. In contrast only 46% of students are White, 28% percent of students are Hispanic/Latinx, 15.6% are Black and 4.8% are Asian. (National Center for Education Statistics [NCES], 2022).

The purpose of this research study is to further explore the effects of Culturally Responsive Teaching (CRT) on culturally diverse students and their academic achievement in intermediate students when their teachers have high cultural competence. Culturally responsive teaching centers the learners' culture, racial identity, language, and ways of being in their instruction, curriculum, and assessment practices. The researcher conducted a quantitative causal-comparative retrospective research study to find relationships and differences between teachers' cultural competence and percentage of students meeting standards on the Smarter Balanced Assessment (SBA). Third through fifth grade teachers were surveyed to measure their cultural competence using the Educators Scale of Student Diversity (ESSD) instrument. Teachers scored into one of two groups: group one, high cultural competence, and group two, low cultural competence.

Next, a series of independent samples t tests and Pearson r correlations were performed to determine if there was a difference in teachers' cultural competency and student performance. The overarching hypothesis was that if teachers have high cultural competence students will pass the SBA at a higher percentage. No significant differences or relationships were found between teachers' level of cultural competency and student performance.

## **Chapter One: Introduction**

### **Background of Study**

What can be done to significantly disrupt the reproduction of racialized outcomes in our nation's schools? Shifting demographics in the United States have dramatically altered the ethnic and racial makeup of student populations, and a growing number of students are multilingual learners. Over the last decade the demographics reflecting an increase in student diversity have changed the landscape of the education system. Educators are having a difficult time connecting, reaching, and teaching many of these diverse learners (Walter, 2017). Culturally and linguistically diverse students are dropping out of secondary schools at an alarming rate. The following outlines dropout rates by race: Asian (1.8%), White (4.1%), two or more races (5.1%), Black (5.6%), Hispanic (7.7%), Pacific Islander (8.0%), Native American (9.6%). Additionally, the overall average dropout rate is 5.1% (NCES, 2021). With our classrooms growing more diverse every year, teachers' mindsets must be engrossed in how they can best teach students from different ethnic, racial, and linguistic backgrounds. Schooling should be designed to support young people of all identities as they self-actualize, realize their full potential, and participate in a democratic society.

These changes present significant challenges for educators, requiring them to rethink curricula, instructional approaches, and teaching strategies. Children of color identified as multilingual, immigrant and poor have had lower opportunities of academic achievement in U.S. public schools. Additionally, the number of students from culturally and linguistically diverse backgrounds attending public schools is approaching 53% (NCES, 2022).

Historically and currently, children of color have not been successful in our public schools, especially black and brown boys. Our current educational system is archaic at best. It takes control, or custody, then sorts and tracks our students. The one-size-fits-all approach has continued to produce inequitable and racialized results. It has been designed to uplift White Anglo Saxon Protestant values and oppress racialized groups, people of color, immigrants, and multilingual learners (Perry et al., 2021; Wozolek & Atif, 2022). Together with the differences of ethnic and cultural background between teacher and student, the educational system also suffers from an achievement gap based on those same demographics. Black and Latino/a students continue to achieve in math and reading at lower levels than White students. This achievement gap exists throughout the entire K-12 system (Gándara, 2009; Sleeter, 2012).

If a student is of color, there is a high probability that his or her teacher will not share the same racial, cultural, ethnic, and linguistic background. Between fall 2009 and fall 2020, the percentage of public-school students who were Latino/a increased from 22% to 28%. The percentage of public-school students who were White decreased from 54% to 46%, and the percentage of students who were Black decreased from 17 to 15 percent (NCES, 2022).

Student and family demographics are changing yearly in our schools. However, the makeup of our teachers, principals, superintendents and local school boards has not kept up with the change. The United States educational system faces a glaring discrepancy of teacher and student demographics. In the United States 84% of teachers are White, 6% of teachers are Hispanic, 8% are Black and less than 1% are Asian. In contrast 46% of students are White, 28% percent of students are Hispanic/Latinx, 15.6%



are Black and 4.8% are Asian (NCES, 2022). Most schoolboard members surveyed in 2018 by the National School Boards Association were White (78%) followed by African American/Black (10%), Hispanic or Latino/a (3%) and American Indian/Alaskan Native (1%). Even though people of color now constitute half or more of the United States population, the teaching profession mirrors the national white narrative (Arellanes, 2019). In a society that continually grows more diverse, with student populations reflecting this diversity, the teaching force is 84% white. Black teachers make up just 7% of the teaching force, and this is down from 9% just a decade ago. Surveys have estimated that white women account for as much as 85% of the teaching force. In the United States, we have a teacher workforce that is white for a student population that is increasingly culturally diverse. Over half, 54%, of the total U.S population growth over the last decade was due to the growth in the Latino population. Children need to see themselves in their teachers (Arellanes, 2019; Gándara, 2009; Wozolek & Atif, 2022).

As an education community, it is essential we continue to explain the need for candid, respectful, and courageous conversations about race so educators may understand why student disengagement and achievement inequality persists for culturally and linguistically diverse students. Race continues to be a paramount issue in American education. There is great concern with low graduation and high dropout rates amongst culturally and linguistically diverse culturally diverse students (Sheets, 1995; Sleeter, 2012; Vaught & Castagno, 2008). Additionally, Black American and Latino boys are referred to special education, disciplined, and expelled at alarmingly higher rates than their white counterparts (Cheatham et al, 2020). In-school detention causes students to miss classroom time and fall further behind in their coursework. As a result, an

achievement gap has developed and persists to widen for culturally diverse students to this day. There is an underrepresentation of culturally diverse students in programs for gifted and talented students (Sheets, 1995). Black American and Latino/a students are dramatically underrepresented in academically rigorous programs. Dr. Anthony Muhammad's (2015) research documented a quarter of high schools with the highest percentage of Black American & Latino/a students do not offer Algebra II, a third do not offer chemistry, or AP courses. Furthermore, the learning and development of Black American and Latino/a students is impaired by explicit and implicit biases, as well as overt racism they experience from educators who don't understand their brilliance and differences (Dotts, 2015; Gándara, 2009). Black American and Latino/a students' struggle with daily interactions where they experience microaggressions, stereotype threat and the perception they will be treated inherently differently or unfairly due to their race. This in turn causes stress of confirming negative expectations about their racial or ethnic identity (Dotts, 2015; Vaught & Castagno, 2008).

### **Problem Statement**

For decades, researchers have discovered that educators in public schools have devalued the potential for academic success among culturally and linguistically diverse culturally diverse students, setting low expectations for them and viewing the cultural and linguistic differences as barriers rather than assets to learning (Hammond, 2015; Ladson-Billings, 1995; Safir & Dugan, 2021). Latino/a students comprise the fastest growing student population in the United States (Arellanes, 2019; Chun, 2015; Gándara, 2009), but experience the lowest rates of academic achievement and school completion of all ethnic and racial groups. Racial inequities are pervasive in the American schooling. According

to Cheatham et al. (2020), racial inequities exist when two or more races are not standing on approximately equal footing. Furthermore, they espouse racial inequities are the manifestation of a centuries long history of racist policies and practices which privileged Whites and excluded Indigenous and people of color. America's racist past which has not been resolved and which exists to this day, influences every aspect of our current reality as evidenced by the durability of racial disparities across almost every measure in society.

For example, the Public Education Leadership Project at Harvard University cited:

- The median net worth of White households is about ten times the median net worth of Black households.
- The national poverty rate for Indigenous is 25.4%, 20.8% for Black Americans, and 17.6% for a Latino/a, while Whites have a poverty rate of 8.1%
- The incarceration rate for Black and Brown Americans is more than five times the rate for Whites.

In our education system:

- Black and Brown students are suspended or expelled at a rate three time higher than White students.
- Students of color are traditionally and consistently under-enrolled in advanced coursework.
- And in 2019, the average 4<sup>th</sup> grade reading score on the National Assessment of Educational Progress (NAEP) continued to show significant disparities between White and Black students where there was a 27-point difference.

Until school districts can address racial inequities, which are rooted in systemic racism in and beyond school systems, these inequities will persist. If left unexamined,

these practices can morph into new ways and forms of oppression that push people of color to the peripheries of society.

The education system is charged with graduating more students who are equipped with the knowledge, skills, and dispositions to be competitive in a global economy and become contributing members of global society. Socioeconomic status, ethnicity, race, and prior achievement history of students should not be linked or be an indicator of student academic success.

By analyzing and interrupting teacher biases, micro-aggressions, institutional racism, discriminatory policies, procedures, and practices we ensure inclusive school environments for all students. We illuminate what history has shown us, that separation and segregation will not produce an avenue which leads to educational equity and excellence for all students. We must continue to discover and cultivate the unique gifts, talents, genius, and interests that every child possesses and remove the predictability of success and failure that currently correlates with race, class, gender, gender identity, or any other social or cultural factors (Hammond, 2015). By taking accountability for historical inequity and advancing solutions to address root cause through an equity-based continuous improvement approach, we can cultivate children's talents and potential. We can instill confidence and ultimately promote independence and liberation for all our learners.

### **Theoretical/Conceptual Framework**

There are four common frameworks in the literature which address culturally informed approaches, generally known as asset-based pedagogies, which incorporate students' cultural identities and lived experiences into the classroom as tools for effective

instruction. The terms for these approaches to teaching vary, from Multicultural Education, Culturally Responsive Teaching, Culturally Relevant Pedagogy, and Culturally Sustaining Pedagogy. While each term has its own components defined by different researchers over time, all these approaches to teaching center the knowledge of traditionally marginalized communities in classroom instruction. As a result, all students, and in particular culturally diverse students, are empowered to become lifelong learners, critical thinkers, and feel a sense of belonging (Cobb & Krownapple, 2019)

Multicultural education is an educational reform movement, and a process whose major goal is to change the structure of educational institutions so that male and female students, exceptional students, and students who are members of diverse racial, ethnic, language, and cultural groups will have an equal chance to achieve academically in school. It revolves around the understanding that some students have a better chance of succeeding in our current educational system than others. This disparity is due to social and cultural differences that must be addressed to provide an equitable educational experience for all students (Banks & Banks, 2004; Sleeter, 2012).

CRT is a framework for greater cultural inclusion in the classroom, based on the assumption that students learn better and are more engaged when content directly connects to their lived experiences (Gay, 2018; Hammond 2015). A similar framework is Ladson-Billings' (1994) culturally relevant pedagogy, which also aims to empower culturally and linguistically diverse students by embracing the cultural and social capital the students bring to school. Both frameworks set high expectations for students in hopes to combat deficit thinking that pervades some educational settings. They also value student culture and attempt to reconcile home culture with school culture. The third

framework, Culturally Sustaining Pedagogy has as its explicit goal supporting multilingualism and multiculturalism. Culturally Sustaining Pedagogy seeks to perpetuate and foster, to sustain, linguistic, literate, and cultural pluralism as part of the democratic project of schooling (Paris, 2012).

CRT is an approach which can be leveraged to close the achievement gap for culturally and linguistically diverse culturally diverse students. CRT is a pedagogy that recognizes and centers on the importance of including students' cultural references in all aspects of their learning needs. Some of the key characteristics of CRT are: Educational and racial equity, positive viewpoints of students; parents and families, communication and belief of high expectations, learning within the context of culture and racial identity (sociocultural awareness), student-centered instruction, reshaping the curriculum by culturally mediating instruction, and by practicing anti-racist teaching that goes beyond surface changes to really build cognitive capacity in our students from diverse backgrounds. Schools and educational leaders can cultivate students' linguistic and cultural proficiencies, provide students with a safe, rich challenging learning environment, and ensure that students are sociocultural integrated (Gay, 2000; Tan, 2001).

### **Purpose Statement**

The purpose of this research study is to further explore the impacts of CRT on culturally and linguistically diverse students. The term “Culturally Responsive Teaching” has been around for decades, nevertheless it seems to have gotten more attention in recent years. While it is encouraging, there is concern due to the political and social climate of our country and world that the approach will not be embraced by educators. CRT helps

ensure all our students become critical thinkers and learners in a psychologically safe learning environment. We have seen civil unrest, demonstrations, and riots in major cities across the globe in response to police brutality, social and racial injustices. With our classrooms growing increasingly culturally, ethnically, racially, and linguistically diverse every year, educators and leaders are searching for ways to best teach students from different backgrounds and ensure learning. This has major implication for our democracy and economic future. As an education system we need to produce students who are equipped with the knowledge, skills, and dispositions to be competitive in a global economy and become contributing members of global society. Socioeconomic status, ethnicity, race, and prior achievement history of students should not be linked or be an indicator of student academic success.

### **Research Method and Questions/Hypothesis**

The researcher conducted a quantitative causal-comparative retrospective research study. Causal-comparative research is a methodology used to identify cause-effect relationships between independent and dependent variables and to explore reasons behind existing differences in two or more variables. The study explored the relationship between the level of cultural competency of the teacher and their students' academic achievement on the state's Smarter Balanced Assessment (SBA) a standardized assessment.

### **Research Questions/Hypothesis**

1. Is there a significant difference in the academic achievement of students on the SBA, in mathematics and English language arts (ELA), between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the Educators Scale of Student Diversity (ESSD) instrument versus teachers with high level of understanding student diversity.

2. Is there a significant difference in the academic achievement of Latino/a students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence.

*Null Hypothesis:* There is no significant difference in Latino students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

3. Is there a significant difference in the academic achievement of Latino male students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in Latino male students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

4. Is there a significant relationship between the academic achievement of students on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between students' performance on the SBA in mathematics and ELA and teachers' score on the ESSD instrument.



5. Is there a significant relationship between Latino students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between Latino students' performance on the SBA in mathematics and ELA and teachers' score on the ESSD instrument.

6. Is there a significant relationship between Latino male students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between Latino male students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

### **Research Design**

The researcher conducted a causal-comparative research design study to explore the differences in students' academic achievement on the state's standardized SBA (scaled scores) that exist between two groups of teachers based on their cultural competence level (high and low) as measured by the ESSD instrument. The 22-item scale used four subscales: Race and Bias, Culturally Responsive Instruction, Sociopolitical Context, and Diversity in Education and was found to be a reliable and valid measure for measuring educators' cultural competence.

The independent variable was Cultural Competency and was treated as a dichotomous variable with two groups, high and low cultural competence. The dependent variable was the percentage of students passing the assessment in ELA and mathematics and was treated as a continuous variable. The analysis examined whether the mean

percent difference in student achievement in ELA and mathematics was significantly different between the two groups of teachers: high and low. Casual-comparative methodology was used to identify potential cause-effect relationships between independent and dependent variables and to explore reasons behind existing differences in two or more variables. The researcher studied cause and effect in retrospect. This helped determine the consequences or causes of differences already existing among or between different groups of teachers. In this design the set of individuals or groups in the study are not randomly selected. Additionally, the researcher took advantage of pre-existing data which were represented in two or more groups where there will be no manipulation, intervention.

The researcher also conducted a correlational analysis. This research design looked at the relationships between teachers' cultural competency and students' academic achievement on a standardized assessment. In this correlational analysis the researcher did not manipulate or control any of the variables and analyzed secondary student achievement data. There are three possible outcomes of a correlation study: a positive correlation, a negative correlation, or no correlation. The results are presented as numerical values called the correlation coefficient. A correlation coefficient is a statistical measure that calculates the strength of the relationship between two variables. It can range from  $-1.00$  (negative) to  $+1.00$  (positive) (Field, 2013). A correlation coefficient of 0 indicates no correlation or no relationship between the two variables.

### **Significance of the Study**

As a growing number of states seek to pass legislation banning the teaching of the academic concept known as critical race theory in K-12 school, as well as more broadly

limiting classroom discussion on topics of race, gender, and sexuality, culturally responsive teaching is caught in the dispute. Some politicians have combined CRT with separate academic concepts and initiatives, including diversity, equity, and inclusion programs as those they want banned in public schools. As a result, legislation gets written in ways that could suppress efforts toward equity in schools, such as policies that can help underserved students.

Education continues to be a white space of privilege (Vaught & Castagno, 2008; Wozolek & Atif, 2022). Students can excel in a safe multicolored, multicultural, and linguistically diverse space where power is shared with the learner. This study has major implications for how we educate culturally and linguistically diverse culturally diverse students. Professional development on CRT is imperative to creating classrooms where students feel a genuine sense of belonging and can reach their full academic brilliance and potential. This study has potential to help policymakers, educational leaders, teachers and parents, center culture and student identity at the heart of instruction and curriculum to ensure all students are learning at grade level or above.

As a country, America has not provided equitable achievement opportunities for all children. It would benefit our children to learn and grow in classrooms where social justice issues are posed, discussed, and relevant to all learners. When students grapple with real life issues, they feel connected to the learning and classroom. If it does not matter to the learner, it does not matter (Breunig, 2016; Cammarota, 2007; Hinchey, 2008). Additionally, students learn best in classroom environments where they can show up in their true and authentic selves. The classroom has to be a place where their skills, brilliance, and genius will be honored and cultivated.

Students, teachers, families, and communities are hurting and disconnected. Education mirrors what is happening in society. CRT challenges teachers' long-held assumptions about culturally and linguistically diverse culturally diverse students. CRT gives voice to the voiceless; gives power to the powerless. Change is often difficult, and CRT facilitates change from coercive to collaborative; from transmission to transformative; from inert to catalytic; from passive to active. CRT leads us to advocacy and activism on behalf of those who are the most vulnerable in classrooms and in society.

Promoting equity, justice, inclusion and creating the conditions in which every student participates, prospers, and reach their full potential is vital to our democracy (Chu, 2014; Muhammad & Hollie, 2011). As an educational system it is imperative to create a culture where all children feel a sense of physical and psychological safety in schools. When the educational system supports all children to receive high quality instruction, high expectations, interventions, and student support, students will achieve their full academic and social potential (Tan, 2001). When true equity is realized it dispels the myth that if we focus on one set of students the other groups of students stand to lose something, when in reality equity benefits all children. Cobb and Krownapple (2019) emphasized that students need to feel a sense of belonging before they can achieve academically. Students will feel a sense of belonging if they are treated with dignity and unconditional acceptance (Cobb & Krownapple, 2019; Harris et al., 2021).

Cheatham et al. (2020), while at the Public Education Leadership Project at Harvard University, contended the purpose of U.S. public education has yet to be agreed upon. They stressed that a key element to resolving this issue is to support young people of all identities and backgrounds as they self-actualize, realize their full potential, and

participate in our democratic society. Cheatham et al. (2020), proposed that to attain high performance, a district must ensure that all its organizational elements; its culture, systems, structures, resources, and stakeholders, are being utilized to enact a theory of change that is grounded in racial equity and a strategy aligned to a robust vision of excellent teaching that is culturally responsive. Cheatham et al. (2020) similarly stressed the equity work in school districts is still emergent and often defined narrowly through the work of an “equity office” or “equity officer.” New and more comprehensive strategies are required to promote a collection of actionable best practices that substantially change outcomes for culturally and linguistically diverse culturally diverse students in meaningful ways.

The significance of this study is the potential to authentically interrogate the current educational system and teachers’ cultural competence and beliefs about the children they serve. It will hopefully demonstrate the need for professional development to implement asset-based pedagogies, like CRT in schools and higher educational institutions. When students’ cultural backgrounds are not thoughtfully considered, classrooms suffer from issues like language barriers, systemic racism/discrimination, and lack of minority representation in the curriculum. Many educational materials are unintentionally biased. Books typically feature white characters. Movies typically depict predominantly white classrooms. Standardized test questions are often unknowingly written in a way that favors the experiences of racial and ethnic majorities. Situations like these communicate to culturally and linguistically diverse culturally diverse students that schools and classrooms are not really designed with them in mind.

Every educator brings some sort of personal bias into the classroom. These biases (racial, ethnic, gender, language and socioeconomic) can be hard to recognize and overcome. Educators addressing their biases and beliefs is vital to becoming a culturally responsive teacher. Educators can investigate and interrogate their own cultural heritage, family history, upbringing, and privileges. It is critical educators view their experiences from an objective standpoint to understand how the experiences of other people might be different than theirs. To gain even more insight, educators can discover books, articles, movies, and other media that help them understand the world from diverse perspectives (Wozolek & Atif, 2022).

### **Definition of Terms**

***Multicultural Education:*** Education reform and approach which seeks to create equal educational opportunities for all students, including those from different racial, ethnic, and social-class groups. Multicultural education tries to create equal educational opportunities for all students by changing the total school environment so that it will reflect the diverse cultures and groups within a society and within the nation's classrooms (Banks, 1997).

***Culturally Responsive Teaching:*** Is a research-based approach to teaching. It connects students' cultures, languages, and life experiences with what they learn in school. These connections help students access rigorous curriculum and develop higher-level academic skills. It values and reflects the assets of all students. By doing that, it raises academic expectations for all learners. It also sends the message that multiculturalism is an asset (Gay, 2010).

***Culturally Relevant Pedagogy:*** Is a theoretical model that focuses on multiple aspects of student achievement and supports students to uphold their cultural identities. Culturally Relevant Pedagogy also calls for students to develop critical perspectives that challenge societal inequalities. Gloria Ladson-Billings (1994) proposed three main components of Culturally Responsive Pedagogy: (a) a focus on student learning and academic success, (b) developing students' cultural competence to assist students in developing positive ethnic and social identities, and (c) supporting students' critical consciousness or their ability to recognize and critique societal inequalities. All three components need to be utilized.

***Culturally Sustaining Pedagogy:*** Views schools as places where the cultural ways of being in communities of color are sustained, rather than eradicated. It promotes equality across racial and ethnic communities and seeks to ensure access and opportunity. Culturally Sustaining Pedagogy also supports students to critique and question dominant power structures in societies.

***Multilingual Learners:*** Students who are developing proficiency in multiple languages. This includes students learning English as an additional language in school (often referred to as "English learners" or "English language learners").

***Race:*** A human construct prevalent in the United States associated with biology and linked with physical characteristics such as skin color or hair texture.

***Ethnicity:*** Large groups of people classed according to common racial, national, tribal, religious, linguistic, or cultural origin or background.

***Culture:*** The customary beliefs, social forms, and material traits of a racial, ethnic, religious, or social group, ways of life including arts, beliefs and institutions of a population that are passed down from generation to generation.

***Pedagogy:*** Teaching methods and practices; more broadly the art and science of the teaching profession.

***Equity:*** Is the obligation of personalized resources needed for all students to reach common academic goals. Academic goals and expectations are the same for all students, however the support needed to achieve those goals is differentiated based on the students' needs.

***Culture Competence:*** The ability of individuals and systems to respond respectfully and effectively to people of all cultures, classes, races, ethnic backgrounds, sexual orientations, and faiths or religions in a manner that recognizes, affirms, and values the worth of individuals, families, tribes, and communities, and protects and preserves the dignity of each.

***Critical Consciousness:*** Teaching students how to identify, analyze, and solve real-world problems, especially those that result in societal inequities against marginalized groups.

## **Organization and Paper Structure**

This chapter discussed the introductory elements of the dissertation study, including the background, problem statement, and purpose of the study. Chapter 2 consists of a literature review of theoretical constructs and related empiricism. Chapter 3 provides a detailed explanation of the methodology of the study. Chapter 4 consists of the results of the study and the data analysis. Chapter 5 contains the summary, conclusion,



analysis, and discussion of the results, including a discussion of the limitations and suggestions for further opportunities to research. The dissertation concluded with a bibliography and appendixes.

## **Chapter Two: Review of the Literature**

For decades, researchers have found that teachers in public schools have undervalued the potential for academic success among racially and culturally diverse students, setting low expectations for them and viewing their lived experiences, cultural and language differences as barriers and liabilities rather than assets to learning. Teachers and educational leaders continually fail to realize how institutional racism and other biases hinder student achievement. Our current system has long promoted the myth that culturally diverse students “need developing”, translated: Black, Indigenous, and Brown students are broken, and schooling will fix them (Safir & Dugan, 2021).

There have been national policy shifts, state and federal mandates which have hindered creativity and opportunities for many children, especially for culturally and racially diverse children of color. A singular narrow-minded vision of success has emerged with corresponding narrow metrics and compliance driven pedagogy. The drill and kill approach have been elevated as the norm in hopes students perform well on standardized assessments. There has been a focus on compliance rather than on student learning and on providing quality instruction. In many states, passing these standardized assessments is a graduation requirement used to assess teacher effectiveness and is utilized to label schools as either passing or failing districts. Districts have also adopted pacing guides to ensure teachers stay on track and on pace (Safir & Dugan, 2021) rather than responding to students’ learning needs. These scripted curricula, pacing guides, and the aforementioned punitive assessment practices have sent the message that we don’t trust our educators to be responsive to students’ instructional needs. When this happens,

teachers and leaders fail to realize that part of the curriculum walks in with our children when they enter the classroom.

Cheatham et al. (2020), while at the Public Education Leadership Project at Harvard University, contended the purpose of U.S. public education has yet to be agreed upon. They stressed a key purpose of the educational system is to support and uplift young people of all identities and backgrounds as they self-actualize, realize their full potential, and participate in our democratic society. Cheatham et al. (2020) proposed that to attain high performance, a district must ensure that all its organizational elements; its culture, systems, structures, resources, policies, procedures, practices, and stakeholders, are being utilized to enact a theory of change that is grounded in racial equity and a strategy aligned to a robust vision of excellent teaching that is culturally responsive. CRT is a mindset, a way of thinking about and organizing instruction to allow for great flexibility in teaching. It centers student's culture, racial identity, and lived experiences into the curriculum and instruction. However, there is still a large gap between theory and practice in many schools across our county.

Since the passing of the No Child Left Behind Act in 2001, schools have tried desperately to improve standardized test scores of students whose performance fell below proficiency. This commenced the American standardized testing movement which has been testing students on racially and culturally biased assessments. Furthermore, this testing approach has measured students' understanding of content and standards one way only, primarily using multiple choice and extended responses. This method hasn't helped children learn nor has it closed the achievement gap for many students, especially poor culturally diverse students and multilingual learners (Blankstein & Noguera, 2016). A

culture has been created where the results from one single assessment determine a variety of future events for learners. The test scores are weaponized and used to promote students to the next grade level, track students into a certain course of action and give status to the students who do well on these standardized assessments. Test scores are used to deny raises and fire teachers and administrators for low assessment performance. Schools were threatened with sanctions, loss of funding, and were labeled as bad or underperforming by state and federal officials in the name of accountability. This created a system of winners and losers in our country (Hinchey, 2008).

In response, researchers and educators have recognized teaching methods and practices, generally known as asset-based pedagogies, which incorporate students' cultural identities and lived experiences into the classroom as tools for effective instruction. The terms for these approaches to teaching differ. More foundational are multicultural education, culturally relevant pedagogy, CRT, and culturally sustaining pedagogy. Though each term has its own components defined by different researchers over time, all these approaches to teaching center the knowledge of traditionally marginalized communities in classroom instruction.

All students, including racially and culturally diverse students, are empowered to engage in the learning process, become lifelong learners and critical thinkers. While the academic framework of CRT and other asset-based pedagogies emerged from how to best support culturally, racially, and linguistically diverse students, it evolved into a teaching approach and mindset that serves all students, regardless of their racial, ethnic, or linguistic background.

### **Assets-Based Pedagogies**

Assets-based pedagogies are an approach to education that focuses on the strengths and abilities of students, rather than their deficits or weaknesses. Proponents of this approach believe that every student has unique talents and skills that can be harnessed to improve their learning outcomes. By adopting an assets-based pedagogy, teachers can create a positive and inclusive learning environment, where students are encouraged to develop their strengths and build on their achievements.

### **Culturally Responsive Teaching**

CRT is an asset-based approach and mindset firmly rooted in learning theory and cognitive science that aims to leverage students' race, culture, customs, characteristics, lived experiences, and perspectives as tools for better classroom instruction. The term was coined by researcher Geneva Gay in 2000 and Zaretta Hammond added to the scholarly body of work in 2015. Gay (2000) wrote that when academic knowledge and skills are situated within the lived experiences and frames of reference for students, they are more personally meaningful, have higher interest appeal, and are learned more easily and thoroughly. It is the kind of teaching that helps culturally, racially, and linguistically diverse students see themselves and their communities as belonging in schools and other academic spaces, leading to more engagement and success. Often educators say they are practicing CRT, but it's an overly simplified version. For example, for some teachers, a multicultural school potluck meal, cultural fair or adding diverse books to their classroom library sufficiently counts as affirming students' culture in education. But CRT is deeper, intentional, and critical work. Similarly, Villegas and Lucas (2002) offered a vision of CRT that incorporated sociocultural consciousness, having affirming views of students

from diverse backgrounds, accepting responsibility for change to make schools more equitable, understanding how learners construct knowledge, knowledge about students' lives, and instruction that builds on what students already know.

CRT recognizes the importance of including students' cultural references and language in all aspects of their learning needs. Some of the characteristics of CRT are equity, unconditional belonging, positive viewpoints of students (asset-based), engaging parents, students, and families. Furthermore, communication and belief of high expectations, learning within the context of culture and racial identity (sociocultural awareness), student-centered instruction, and reshaping the curriculum by culturally mediating instruction are essential. Practicing anti-racist teaching that goes beyond surface changes builds cognitive capacity in our students from diverse backgrounds (Tan, 2001).

When teachers practice CRT, their classrooms are psychological safe learning spaces full of books featuring characters and images that represent a variety of ages, genders, ethnicities, and other types of diversity. They share the accomplishments and expertise of people from different ethnic and racial groups in every subject area. They include numerous viewpoints when discussing historical and contemporary events, including those from oppressed groups who are often left out of the narrative. Additionally, they encourage students to draw on their prior knowledge and cultural experiences to make connections to the academic content (Gay, 2000; Hammond, 2015).

Gay's (2000) research shows five essential components of CRT:

- A strong knowledge base about cultural diversity. Teachers understand different racial and ethnic groups' cultural values, traditions, and contributions to society, and incorporate that knowledge into their instruction.
- Culturally relevant curricula. Teachers include multiple perspectives in their instruction and make sure the images displayed in classrooms, such as on bulletin boards, represent a wide range of diversity. Teachers also contextualize issues within race, class, ethnicity, and gender.
- High expectations for all students. Teachers help students achieve academic success while still validating their cultural identities.
- An appreciation for different communication styles. Teachers understand different communication styles and modify classroom interactions accordingly. For example, many communities of color have an active, participatory style of communication. A teacher who doesn't understand this cultural context might think a student is being rude and tell the student to be quiet. The student may then shut down and not engage in future instruction and learning.
- The use of multicultural instructional examples. Teachers connect students' prior knowledge and cultural experiences with new knowledge.

CRT also has an element of critical consciousness, where students are empowered to critique and analyze societal inequities. Critical consciousness is defined as teaching students how to identify, analyze, and solve real-world problems, especially those that result in societal inequities against marginalized groups of people.

A synthesis of decades of research on CRT and related frameworks found that engaging in culturally affirming practices across subject matters, including mathematics

and science, led to increases in students' understanding and engagement with academic skills and concepts. For instance, students in high school math class could learn about statistics by assessing the probabilities of racial profiling cases in various neighborhoods or using other datasets applicable to their communities that bring up questions about justice and injustice (Hammond, 2015).

### **Culturally Relevant Pedagogy**

Culturally relevant pedagogy is a way of teaching that fosters student achievement while helping students to accept and affirm their cultural identity, as well as develop critical perspectives that challenge societal inequities. Culturally responsive pedagogy stems from the framework introduced by scholar Gloria Ladson-Billings in the 1990s. Ladson-Billings was weary of the commonly held narrative that Black children were deficient, criminal, deviant, and that there was something wrong with them. As an alternative, she wanted to find out what was right with Black children, their families, and their communities. To do so, she researched the practices of effective teachers of Black students.

Ladson-Billings (1994) observed teachers who were identified by both principals and Black American parents as being excellent. The teachers had different ways of teaching, but they all had high expectations for their students and fostered academic success. They are also all valued and integrated themselves in the community from which their students came. Ladson-Billings (1995) condensed the commonalities in those teachers' beliefs and practices into the framework of culturally relevant pedagogy, which she defined as a model that not only addresses student achievement but also helps students to accept and affirm their cultural identity while developing critical



consciousness or perspectives that challenge inequities that schools and other institutions perpetuate.

There are three components of culturally relevant pedagogy (Ladson-Billings, 1995):

- Student learning - prioritizing students' intellectual growth, including their ability to problem-solve.
- Cultural competence - creating an environment where students affirm and appreciate their culture of origin while also developing fluency in at least one other culture; and
- Critical consciousness - teaching students how to identify, analyze, and solve real-world problems, especially those that result in societal inequities against marginalized groups.

Culturally responsive pedagogy acknowledges that culture is fundamental to learning. Not only does culture inform communication and information exchange, but it also plays a crucial role in how individuals and groups think. When educators recognize and respects cultural differences among learners, and incorporate those differences throughout the curriculum, students of all cultures can receive true equitable access to education (Genao, 2016; Ladson-Billings, 1994).

### **Culturally Sustaining Pedagogy**

Culturally sustaining pedagogy declares students of racially, ethnically, and multilingual culturally diverse students should not be expected to adhere to white middle-class norms, but their own cultural ways of being should be explored, honored, normalized and nurtured by educators. Currently, public schools are still places where white Eurocentric norms are considered the default standard in the curricula, behavioral

expectations, linguistic and assessment practices. Students and families are being advised to lose or deny their languages, literacies, cultures, and histories to assimilate and achieve in schools (Caraballo, 2017; Paris & Alim, 2017).

Django Paris (2012), who coined the term culturally sustaining pedagogy, espoused that culturally sustaining pedagogy positions dynamic cultural dexterity as a necessary good, and sees the outcome of learning as additive, rather than subtractive, as remaining whole, rather than framed as broken, as critically enriching strengths rather than replacing deficits. Culturally sustaining pedagogy explicitly calls for schooling to be a site for sustaining, rather than eradicating, the cultural ways of being of racially and culturally diverse communities of color.

Paris's framework built on the work of Ladson-Billing and others but offers a critique that cultural relevance in the curriculum is not enough for students in today's world, given demographic shifts toward a more diverse society. Paris (2012) contended that asset-based pedagogies, like CRT, traditionally have not paid enough attention to young people's more fluid relationships with their racial identities. Culturally sustaining pedagogy affirms and respects the key components of the asset-based pedagogies that preceded it, but also takes them to the next level. As an alternative to just accepting or affirming the backgrounds of culturally and racially diverse culturally diverse students as seen in culturally relevant pedagogy; or connecting to students' cultural knowledge, prior experiences, and frames of reference as we see in CRT; culturally sustaining pedagogy views schools as places where the cultural ways of being in communities of color are sustained, rather than eradicated (Caraballo, 2017; Paris, 2012). Therefore, schools become a place where linguistic, literate, and cultural pluralism is fostered to sustain

positive school transformation. Additionally, dynamic cultural resourcefulness is positioned as a positive disposition and finds learning outcomes as additive rather than subtractive (Casanova & Cammarota, 2019; Paris & Alim, 2017).

### **Multicultural Education**

Multicultural education progressed out of the Civil Rights Movement in the United States. While it began with the Black American community, the movement soon expanded to include other cultural groups who were subject to discrimination like Mexican American, Indigenous, Asian American and Arabic American. In recent years, as student populations have grown more diverse, multicultural approaches to education are increasingly being used in public schools to reach culturally, racially, and linguistically diverse students.

James Banks (1989), a renowned scholar of multicultural education, contended that the goal of multicultural education is to allow equal opportunity for all students, regardless of their social, economic, or ethnic backgrounds (Banks & Banks, 2004). Multicultural education is an approach that seeks to develop awareness and skills in teachers and students for living in a culturally diverse country and world. In addition, it revolves around the understanding that some students have a better chance of learning and succeeding in our current educational system than others. This disparity in educational opportunity is a product of cultural and social differences that must be addressed in a way that provides all students with an equitable education (Banks, 2004; Gay, 2010; Sleeter, 2001).

Multicultural education seeks to create equal educational opportunities for all students by changing the total school environment so that it will reflect the diverse

cultures and groups within a society and within the nation's classrooms. Multicultural education is a process because its goals are ideals that teachers and administrators constantly strive to achieve to ensure learning for all students (Banks, 1989).

There are five dimensions of multicultural education: Content integration, the knowledge construction process, prejudice reduction, equity pedagogy, and an empowering school culture and social structure (Banks, 1995a).

Content integration deals with the extent to which teachers use examples and content from a variety of cultures and groups to illustrate key concepts, generalizations, and issues within their subject areas or disciplines.

The knowledge construction process describes how teachers help students to understand, investigate, and determine how the biases, frames of reference, and perspectives within a discipline influence the ways in which knowledge is constructed within it. (Banks, 1996; Caraballo, 2017; Casanova & Cammarota, 2019). Students also learn how to build knowledge themselves in this dimension as knowledge holders, co-construction of knowledge, and shared knowledge, offering culturally and linguistically diverse students to engage in both forms (internal and external) of transformational resistance (Casanova & Cammarota, 2019).

Prejudice reduction describes lessons and activities used by teachers to help students to develop positive attitudes toward different racial, ethnic, and cultural groups. Research indicates that children come to school with many negative attitudes toward and misconceptions about different racial and ethnic groups (Phinney & Rotheram, 1987). Research also indicates that lessons, units, and teaching materials that include content

about different racial and ethnic groups can help students to develop more positive intergroup attitudes if certain conditions exist in the teaching situation (Banks, 1995b). These conditions include positive images of the ethnic groups in the materials and the use of multiethnic materials in a consistent and sequential way.

Equity pedagogy exists when teachers modify their teaching in ways that will facilitate the academic achievement of students from diverse racial, cultural, and social-class groups (Banks & Banks, 1995). Research indicates that the academic achievement of Black American and Mexican American students is increased when cooperative teaching activities and strategies, rather than competitive ones, are used in instruction (Aronson & Gonzalez, 1988, Luna, Evans, & Davis, 2015). Cooperative learning activities also help all students, including middle-class White students, to develop more positive racial attitudes. However, to attain these positive outcomes, cooperative learning activities must have several important characteristics (Allport, 1954). The students from different racial, ethnic, and linguistic groups must feel that they have equal status in intergroup interactions, teachers and administrators value and support cross-racial interactions, and students from different racial groups work together in teams to pursue common goals.

An empowering school culture and social structure is created when the culture and organization of the school are transformed in ways that enable students from diverse racial, ethnic, linguistic and gender groups to experience equality and equal status. The implementation of this dimension requires that the total environment of the school be reformed, including the attitudes, beliefs, and action of teachers and administrators, the curriculum and course of study, assessment and testing procedures, and the styles and

strategies used by teachers. These five dimensions work together to form a welcoming and equitable educational environment that helps counteract the adverse effects of institutional racism (Banks, 2004; Caraballo, 2017).

Across the educational system, there are four approaches to multicultural curriculum reform to engage racially and culturally diverse students in the curriculum. The four approaches are: Contributions, Additive, Transformational, and Social.

The most popular is the Contributions Approach. When this approach is used, teachers insert isolated facts about ethnic and cultural group heroes and heroines into the curriculum without changing the structure of their lesson plans and units. Often when this approach is used, lessons about ethnic minorities are limited primarily to ethnic holidays and celebrations, such as Martin Luther King's Birthday and Cinco de Mayo. The major problem with this approach is that it reinforces the perception, already held by many students, that ethnic minorities are not integral parts of mainstream U.S. society, and that Black American history and Mexican American history are separate and apart from U.S. history (Banks, 1999).

The Additive Approach is also frequently used by teachers to integrate content about ethnic and cultural groups into the school curriculum. In this approach, the organization and structure of the curriculum remains unchanged. Special units on ethnic and cultural groups are added to the curriculum, such as units on African Americans in the West, removal of Indigenous persons, and the internment of the Japanese Americans (Banks, 1999). While an enhancement over the Contributions Approach, the Additive Approach is problematic because ethnic and cultural groups remain on the margin of the

mainstream curriculum not centered at the heart of instruction (Caraballo, 2017; Gay, 2018; Ladson-Billings, 1994).

The Transformation Approach brings content about ethnic and cultural groups from the margin to the center of the curriculum. It helps students to understand how knowledge is constructed and how it reflects the experiences, values, and perspectives of its creators. In this approach, the structure, assumptions, and perspectives of the curriculum are changed so that the concepts, events, and issues taught are viewed from the perspectives and experiences of a range of racial, ethnic, and cultural groups. The center of the curriculum no longer focuses on mainstream and dominant groups, but on an event, issue, or concept that is viewed from many different perspectives and points of view (Banks, 1999).

The Social Action Approach combines the transformation approach with activities to strive for social justice change. Students are not only instructed to understand and question social justice issues, but to also do something significant about the issues (Breunig, 2016). For example, after participating in a unit about recent immigrants to America, students may write letters to senators, congress, and newspaper editors to express their opinions about new policies to help and support immigrants (Banks, 1999). Multicultural education seeks to actualize the idea of *e pluribus unum*, i.e., to create a society that recognizes and respects the cultures of its diverse peoples united within a framework of democratic values that are shared by all (Banks & Banks, 1995, Cammarota, 2007).

Research consistently reminds us that these asset-based pedagogies; multicultural education, culturally responsive teaching, culturally relevant pedagogy, and culturally

sustaining pedagogy, among others, are not in conflict with each other. While their frameworks vary, they all have the same goal of dismantling a deficit mindset and approach to educating racially, ethnically, and linguistically diverse students and focusing instead on their strengths, assets, funds of knowledge and communities in the classroom.

### **Critical Analysis**

The literature review demanded a meticulous critical analysis, encompassing an assessment of the depth and breadth of the reviewed literature. It involved evaluating the coherence and organization of the literature, the selection criteria for including specific studies, and the synthesis of diverse sources to support the research context. The following sections illuminate the analysis. *The Value of Culture and The Many Rings of Culture, Cultural Competence, Racial Equity, Neuroscience and Culturally Responsive Teaching, Quality Trusting Relationships, Culture of Belonging and Dignity, High Expectations and High Supports, Elevating Student Voice, Teacher Bias and Preservice.*

A critical examination also entailed identifying gaps in existing research, potential biases, and assessing the overall quality of the reviewed literature. This process was integral to understanding the theoretical framework underpinning the dissertation, ensuring it contributes meaningfully to the scholarly conversation within CRT.

### ***The Value of Culture and The Many Rings of Culture***

Sharroky Hollie (2011) espoused there are many different types or rings of culture in which our students and teachers live, interface, or associate with on a daily basis. Cultures are more than racial and ethnic associations. A central feature of CRT is the ethnocultural identity of the students, but not the exclusion of the other identities that come with culture. Additionally, the more educators become responsive to age culture,



gender culture, national culture, socioeconomic culture, youth culture, family culture, home culture, religious culture, political culture, or what Hollie (2011) named the rings of culture, the closer they are to reaching the learner. Each of these rings is a potential source of responsiveness for the educator. It's not about thinking of students in a one-dimensional, stereotypical way. Culturally responsive teachers must also consider the student's gender, age, socioeconomic status, whether they live in the suburbs or a rural area, and the rings of culture when working with students in the learning environment.

Culture matters in instruction. A standard definition of culture is limited to ethnographic variables, nationality, ethnicity, language, customs, values, beliefs, religion, and achievements of a group of people. A broader definition of culture contains a person or group's whole social system, which comprises of various grouping variables such as demographics, status, and group affiliation. Pederson (2009) identified a dichotomy of culture, objective and subjective culture, to assist in understanding. Objective culture refers to visible, identifiable behaviors or artifacts that are culturally learned and can be identified by persons outside of that cultural group. Subjective culture refers to internalized attitudes and opinions that members of a cultural group hold, which are much more difficult to identify and measure by those outside of that group. In the context of cultural awareness, it is vital to move the focus from objective culture to subjective culture, especially for educators that interact with children of varying cultural backgrounds. Though identifying objective cultural symbols is much easier, knowledge of subjective culture results in a better understanding of a student's cultural value in the learning environment.

Race does not appear as a culture, as research supports race to be a human construct. Intersectionality demonstrates where cultures clash or interact in a learning environment. You may have a white-forty-five-year-old- middle-class woman teaching a class of 15–17-year-old inner-city, poor Black American & Latino/a students. Students may be perceived as being “loud” in the classroom for talking out of turn and be reprimanded for the behavior as it goes against the traditional cultural norm of entering the classroom quietly. In some students’ culture, talking while someone else talks show how invested and engaged they are in the conversation. They may make hand gestures or other body movements. However, this goes against our typical educational culture of raising hands and one person speaking at a time. Culturally responsive teachers find ways to incorporate that verbal overlap into their lesson rather than seeing it as rude, disrespectful, or worthy of discipline. Part of the problem arises when teachers don’t know, are unfamiliar or fail to understand their students’ culture and diverse background. They misinterpret cultural differences as misbehavior. There are many rings of cultures interacting in these scenarios. Culturally diverse students come to school having already mastered many cultural skills and ways of knowing and learning (Holli, 2011). The classroom teachers have also had many years of experiences, beliefs, behaviors, and methods of teaching which impact the learning environment.

Research supports the notion of teachers and leaders centering culture at the heart of instruction and curriculum. The need to honor, cultivate, and build on what students bring to the table in terms of their cultural identities will help to create a safe and non-threatening learning environment. Sleeter (2012) documented how underserved students may face implicit bias because of their race, culture, language, or socioeconomic status.

Implicit bias is the unconscious attitudes or stereotypes we all hold, even teachers and educational leaders. As a result of biases, racially and ethnically diverse students are disciplined at a higher rate and are often overrepresented in special education. Other times, their needs may go undetected and not adequately served. These marginalized students are underrepresented in gifted education classes (Sheets, 1995; Sleeter, 2012). By using an assets-based mindset and pedagogy, schools are less likely to misidentify students for special education or over discipline culturally diverse students. At the same time, schools better identify and serve students who may have learning and thinking differences. This approach communicates worthiness and raises expectations for all students.

### ***Cultural Competence***

Reflecting critically on biases and prejudices helps to develop the skills necessary to effectively interact and engage with individuals whose cultural backgrounds are different. Realizing that everyone has biases is an important step for building cultural competence. Biases may stem from cultural and ethnic backgrounds, experiences, or personal demographics, and these biases exist whether there is an awareness of them or not (Hollie, 2022; Noguera, 2016) .

Awareness, knowledge, and skill are critical for teachers to engage in the process of developing of cultural competency. Cultural awareness requires knowledge of one's own biases towards other cultures and an understanding of objective cultural symbols. Cultural knowledge refers to the comprehension of the cultures with which one may interact in personal and professional settings. Cultural skill refers to the ability to interact with people of different cultures in an unbiased and productive manner. The most

difficult component in achieving full cultural competence, cultural skill requires the awareness and knowledge to effectively communicate, both verbally and nonverbally, with people from varying cultural backgrounds (Pederson, 2009).

Cultural competence goes beyond tolerating differences and instead involves being appreciative, affirming, and inclusive of all ethnic and cultural backgrounds (De Guzman et al., 2016). Cultural competence has three important components: active listening, demonstrating empathy, and effective engagement. The first component is active listening. It entails thinking about the feeling behind the content or the emotion involved. The emotion gives evidence of the real intent of the conversation, which will help you identify if the person is upset, inquisitive, or acting on another emotion and allow you to respond appropriately (De Guzman et al., 2016).

The second component of cultural competency is demonstrating empathy. It is the art of seeing and feeling the situation of another, walking in another person's shoes, or seeing the world as that person sees it (De Guzman et al., 2016). Empathy involves understanding that person's perceptions and the conclusions that person draws about his or her life experiences. It does not mean you have to agree with that person's perceptions and conclusions, but at the very least, you are able to see the other person's position.

The third component of cultural competency is effective engagement. Engagement should be mutually beneficial and a reciprocal learning experience in which you learn from one another. Focus should be on the behaviors and the situation, not the person (De Guzman et al., 2016)

### ***Racial Equity***

Racial inequities are pervasive in the American schooling system. According to Cheatham et al. (2020), racial inequities exist when two or more races are not standing on approximately equal footing. Racial inequities are the manifestation of a history of racist policies and practices which privileged whites and excluded Indigenous and people of color that spanned centuries. America's racist past influences current reality evidenced by the durability of racial disparities across almost every measure in society. This has been the underbelly of the American public education system. As we proclaim a commitment to equity, we continue to use many of the tools that built this unjust system, from tracking to traditional bell schedules to standardized tests that are rooted in the history of eugenics. Eugenics is the scientifically flawed and immoral theory of "racial improvement" and "planned breeding," which gained popularity during the early 20th century.

America is at a crossroads in the movement for equitable schools for all children. While equity has entered the popular discourse in education, we are struggling to transform the fundamental paradigm of how schools operate and who they serve, a paradigm born of inequity. Equity has been more of a conservative than a liberating force in American education. There has been more discourse around this ideal rather than systemic change or action. Today the word equity is a contentious term. Many people confuse it with equality and attempt to racialize the word. Equity and equality are two different terms and conceptually different. There are many types of equity. There is educational equity, racial equity, gender equity, language equity, LGBTQ + equity, social equity and the list goes on. When it comes to equity vs equality in education, the terms

are often used interchangeably. But understanding the distinction between the two is essential for resolving issues faced by disadvantaged students in the classroom. While working towards equity and equality can both do good, equity should be the end goal in education. The reason lies in the difference between being fair vs equal.

Scholars defined educational equity as championing the individual cultures, identities, talents, abilities, languages, and interests of each student by ensuring they receive the opportunities and resources that meet their unique needs and aspirations in a timely manner. In an equitable school district, every student has access to the resources, opportunities, exposure to grade level standards and educational rigor they need, irrespective of their race, ethnicity, gender, gender identity, sexual orientation, language, learning path, accessibility needs, family background, family income, citizenship, or tribal status (Blankstein & Noguera, 2016).

Equality is more commonly associated with social issues, possibly because more people know what it means. In a nutshell, its definition is as it sounds, the state of being equal. When a group focuses on equality, everyone has the same rights, opportunities, and resources. Equality is beneficial, but it often doesn't address specific equitable needs. Simply giving each student a laptop to take home (as was done during the COVID-19 school closures) does not deliver equity, only equality. If all things were equal, we would miss and not address students who don't have internet access in their homes, do not have an adult to support them with schoolwork, or ensure students log-on to their online classes. Even if a school practices equality, some students will still struggle to get access to needed support, and resources. The educational system endeavors to meet the unique needs and aspirations of every learner in a timely manner.

Hundreds of years ago, most learning took place at home. Parents taught their children or, if their families were well resourced, private tutors did the teaching and educating. The Puritans were the first in this country to point out the need for public education. They established schools to teach not just the essentials-reading, writing and math- but also to reinforce their religious core values (Springer, 2020).

After the American Revolution in 1779, Thomas Jefferson argued that the newly independent nation needed an educational system, and he suggested tax dollars be used to fund it. Jefferson proposed a two-track educational system with different tiers for, in his words, the "laboring and the learned". Study would allow a very few of the laboring class to advance, Jefferson said, by raking a few "geniuses from the rubbish". At the time this public education system was only for white males who would eventually ascend to politics, local and state government, and eventually the presidency of the United States of America. He aimed to create a national schooling culture to educate qualified politicians for a republican government. In 1932, a survey of 150 school districts revealed that three-quarters of them were using so-called intelligence testing to place students in different academic tracks. The relics of these historical moments persist like undeveloped organs in a system built for racial and economic stratification (Spring, 2020).

The American educational system today is archaic at best. Students are sorted based on intelligence and they are tracked based on what they know or don't know. The one-size-fits-all approach continues to produce unequitable racialized results. The system has been designed to uplift White Anglo Saxon Protestant values and oppress racialized groups, people of color, immigrants, and multilingual learners. These practices diminish creativity and motivation in students, leading to disengagement with school and the

learning process as a whole (Duncan-Andrade & Morrell, 2008; Emdin, 2016).

Segregation is not only a matter of separating black and white children, but also socioeconomic status and similar patterns of inequity can be extrapolated from those of ethnic or racial segregation. In addition, socioeconomic segregation is correlated with ethnic or racial segregation, furthering educational inequities (Lee & Burkam, 2002).

Spring (2020) stated that by the 1840s, a few public schools were established around the country in the communities that could afford them. However, that smattering of schools wasn't good enough for education crusaders like Horace Mann of Massachusetts and Henry Barnard of Connecticut. They began calling for free, compulsory school for every child in the nation. Horace Mann is credited as the father of public education. Mann's goal was to provide equality of opportunity. He referenced this goal as "the great balance wheel of society". His vision of public education was to ensure schools allowed everyone to receive an education which afforded them the opportunity to compete for wealth on equal terms. Mann espoused, to provide everyone with an equal chance in the competition, all participants must begin at the same starting point. He's credited with the Common School Model where all children receive an equal and common education where all are starting the economic race on an equal footing. He believed this would relieve tension between the poor and the wealthy. Massachusetts passed the first compulsory school laws in 1852. New York followed the next year, and by 1918, all American children were required to attend at least elementary school. Mann believed education focused on the whole child was the key to a good society, not laws. The Common-School model did not consider the lived experiences, languages, socioeconomic status, family backgrounds and cultural differences of students before



entering the school system. These are issues that continue to challenge the educational system.

Blankstein & Noguera (2016) shared that next came the movement to create equal schooling for all American children, no matter what their race, ethnicity, language, or legal status. At the turn of the 20th century, schools in the South, and many in the North, were segregated. The 1896 Supreme Court ruling, *Plessy v. Ferguson* upheld the legality of segregation. It was not until the Supreme Court's decision in *Brown v. Board of Education* and congressional civil rights acts of the 1950s and 1960s that systematic segregation under state law was ended. In the wake of those Federal actions, many states amended or rewrote their state constitutions to conform to the spirit of the 14th Amendment. Finally, in 1954, the Supreme Court overturned its ruling with the landmark case, *Brown v. Board of Education*, and public schools became open to people of all races. On May 17, 1954, U.S. Supreme Court Justice Earl Warren delivered the unanimous ruling in the landmark civil rights case *Brown v. Board of Education of Topeka, Kansas*. State-sanctioned segregation of public schools was a violation of the 14th amendment and was therefore unconstitutional. This historic decision marked the end of the "separate but equal" precedent set by the Supreme Court nearly 60 years earlier in *Plessy v. Ferguson* and served as a catalyst for the expansion of the civil rights movement during the decade of the 1950's and 60's (Springer, 2020). Metaphorically speaking, people of color were given access to the schoolhouse, however the classroom doors remained locked.

*Brown v. Board of Education* was a landmark decision that had profound impacts on the demographics of teachers in the United States of America. Following the decision,

schools became integrated, and teachers were no longer segregated by race. This had a transformative impact on the makeup of the teaching profession, as many Black teachers were not able to secure positions in previously all-White schools.

The *Brown v. Board of Education* Supreme Court decision had a significant impact on teachers and the racial demographics of the teaching profession. Prior to the *Brown v. Board* decision, many school districts across the United States practiced segregation, which meant that Black students were taught exclusively by Black teachers, and White students were taught exclusively by White teachers, with Black American students being educated in separate, often underfunded schools with few resources or opportunities. As a result, the majority of teachers in these schools were also Black American (Tillman, 2004).

After the *Brown v. Board* decision, school districts were required to integrate schools, leading to a significant increase in the number of Black American students in previously White-only schools. This, in turn, led to an increase in the number of Black American teachers in these schools as well, as schools sought to reflect the diversity of their student body and provide role models for marginalized students.

However, while *Brown v. Board* helped to desegregate schools and diversify the teaching profession to some extent, there is still a notable disparity between the racial composition of students and the racial composition of educators. Black American students make up a large portion of the student population in many school districts, yet disproportionately few teachers are Black American. This lack of diversity can have negative effects on the academic performance and experiences of culturally diverse

students, and efforts to increase diversity among teachers continue to be an important issue for education policymakers and advocates today (Tillman, 2004).

Today, the teaching profession is much more diverse than it was before the decision, and teachers from a range of different racial, cultural, and linguistic backgrounds bring valuable experiences and perspectives to the classroom.

When it comes to educational and racial equity there have been many monumental, failed attempts largely due to the fact that the efforts are not student centered (DeMatthews & Izquierdo, 2020). They are adult centered, industry/workforce driven, politically driven, and/or religious moral values centered. As the United States of America, we have not yet agreed on the true purpose of education. Policy makers use the term equity for political success rather than to change racialized outcome for our traditionally marginalized students of color. The American education system has not yet abandoned the systematic thinking of winners and losers. It has not eradicated the mindset of the old zero-sum game. In 1983, the national report, *A Nation at Risk*, delivered an alarming view of the American education system. It described stark realities like plummeting student performance, found that about 13% of 17-year-olds were functionally illiterate, and students needed an increased array of remedial courses in college. Such trends threatened children's opportunities and collective future.

Additionally, there was a fear of international competitors taking control of the global open market (National Commission on Excellence in Education, 1983). The *A Nation at Risk* report was weaponized to punish and sanction schools who did not meet standards and metrics on standardized assessments. The system cannot continue to rely on pressure and humiliation, based on standardized test scores, as a means to nudging our schools to

improve. It must start embracing the idea of enhancing success for all students through a thoughtful and intentional focus on equity and utilizing asset-based pedagogies like CRT.

By advancing educational and racial equity the greater good of society would be improved. More students would graduate with the knowledge, skills and dispositions to be successful in post-secondary education, work force, or military service. Culturally and racially diverse students would not be part of the school-to-prison pipeline (Kendi, 2019; Love, 2019). As a nation, the need to prioritize racial equity is considered necessary as racial and ethnic minorities have been historically prohibited and structurally excluded from educational opportunities. As leaders begin to embrace the idea that everyone will benefit when justice and opportunity is available to all, the real equity work begins and they reimagine systems and support for all learners (Hammond, 2015; Love, 2019). Promoting just and fair inclusion and creating the conditions in which everyone can participate, prosper, and reach their full potential is paramount. We must create a culture where all children feel a sense of unconditional belonging in our schools. Ensuring that every child receives what they need to develop to their full academic and social potential dispels the myth that if we focus on one set of students the other groups stand to lose something, when in reality it is beneficial to all children. Cobb & Krwonapple (2019) espoused students need to feel a sense of belonging before they can achieve academically. Students will feel a sense of belonging if they are treated with dignity and unconditional acceptance.

When we examine biases and micro-aggressions we interrupt inequitable practices to ensure inclusive school environments for all. Racial microaggressions are brief and commonplace daily verbal, behavioral, or environmental indignities, whether

intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults toward people of color. Microaggressions seemed to appear in three forms: micro-assault, microinsult, and microinvalidation. Racist and deficit minded micro-aggressions have created segregated and exclusionary schools. For culturally and racially diverse students exclusionary practices were felt and seen in their daily school experiences. Attention to these practices illuminated the fact that history has shown us that separation and segregation will never produce an avenue which leads to educational excellence for all. We must continue to discover and cultivate the unique gifts, talents, genius and interests that every child possesses and remove the predictability of success and failure that currently correlates with race, class, language, gender, gender identity, or any other social or cultural factors. By taking accountability for historical inequity and advancing solutions to address root cause through an equity-based continuous improvement approach, we can cultivate children's talents, potential, confidence and ultimately promote independence and liberation for all learners (Hammond, 2015).

Stereotype threat and systematic racism are related phenomena. Stereotype threat refers to a situation in which a student feels like they must conform to the social stereotypes of their cultural or ethnic group. Stereotyping threat reduces the performance of individuals, causing anxiety and underselling an individual's true ability and potential (Steele, 2010). Studies show the negative effects of stereotype threat, especially stereotypes based on gender and race (Steele, 2010; Steele & Aronson, 1995). According to Steele (2010), to eradicate stereotype threat in a classroom, there are several steps that can be taken. For example, encouraging students to develop a growth mindset, which focuses on effort and improvement rather than innate ability. Fostering a sense of

belongingness in the classroom by emphasizing that everyone is valued and respected. Providing students with positive role models and diverse perspectives to counteract negative stereotypes. Monitoring and being aware of the impact of language, dress codes, and other factors that may contribute to stereotype threat. Urging students to engage in self-affirmation exercises to boost their confidence and reduce the negative effects of stereotype threat. Allowing students to challenge their own biases and those of others in the classroom. Providing opportunities for students to discuss and reflect on issues related to identity, diversity, and inclusion. When measures are taken to create an inclusive, culturally responsive learning environment, the effects of stereotype threat are diminished, therefore, allowing students to perform to their fullest potential (Patel, 2018).

Systematic racism is the theory which addresses individual, institutional, and structural form of racial inequality. Systemic racism takes many forms in our educational system, like unequal opportunities for students from marginalized backgrounds who make experience limited access to advanced classes, extracurricular activities, and other opportunities that can help them succeed. Biased disciplinary practices, policies and procedures is another way systematic racism show up in schools. Studies have shown that students of color are disproportionately disciplined and punished for the same behaviors as White students (Cheatham et al, 2020; Caraballo, 2017). Additionally, unconscious bias where teachers and school administrators may hold unconscious biases that affect their interactions with students of color, leading to lower expectations and less support is another example of systemic racism. This includes the complex array of anti-Black/Brown practices, the unjustly gained political-economic power of Whites, the continuing economic and other resource inequalities along racial lines, and White racist

ideologies and attitudes that uphold the rationalized White privilege and power (Hinchey, 2008). To address systemic racism in schools, it is important to acknowledge its existence and take active steps to counteract it. This includes diversifying the curriculum, implementing bias training for teachers and staff, providing equal opportunities for all students, and actively working to create a more inclusive school environment (Caraballo, 2017). Systematic racism is built into the foundation of American society and infuses all aspects of it: law, policy, economy, politics, media, social institutions, beliefs (conscious or unconscious) and certainly education (Wilkerson, 2020). Despite the talk of “equity” and “culturally responsive education”, America’s education systems continue to be narrowly defined by Western, Eurocentric and racist based ideologies like its standardized assessment philosophy, success frameworks, and data models that are not designed for culturally and racially diverse students (Safir & Dugan, 2021). The formal public education system in America continues to be a White space aiming to maintain the current White power structure.

Scholars have repeatedly advocated for equity in schools as the answer to supporting every student, not just those from disadvantaged backgrounds. With mutual accountability and commitment to the common goal of meeting the needs of all students among all stakeholders, schools will begin to realize educational excellence. When schools provide their students with resources that fit individual circumstances, the entire classroom environment improves, and students learn at higher levels. Additionally, the importance of equity extends to our society. In equitable communities, everyone has the opportunity to succeed regardless of their original circumstances (Blankstein & Noguera, 2016)

Equity as liberation is an approach which has entered the mainstream education space over the past five years from places like the National Equity Project and equityXdesign. The roots of it are old, drawing on Paulo Freire's (1970) ideas of "problem-posing" education and education as a force for liberation, and they run through the writings of individuals like Jeff Duncan-Andrade, Pedro Noguera, Gloria Ladson-Billings, Bettina Love, Geneva Gay, and other researchers. The idea here is that equity is a lens, a way of seeing how power is distributed, whose voices are being heard, which ideas are being represented, and whose interests are being served. It relies more heavily on what Shane Safir (2021) calls "street data" (the lived experiences of students in schools) than "satellite data" (test scores). It sees diversity as an asset, where our different lived experiences and funds of knowledge create rich opportunities for mutual learning, which is a profoundly different stance from the deficit approaches that have become standard in these discussions. It takes seriously the idea that education should liberate, meaning create ways for students to take agency to transform their lives and the world around them.

### ***Neuroscience and Culturally Responsive Teaching***

In her book *Culturally Responsive Teaching and the Brain*, Zaretta Hammond (2015) espouses the need for true education reform and transformation. Despite 30 years of education reform, there has been so much reform and yet so little change. CRT is an engagement strategy, approach, and mindset designed to motivate racially and culturally diverse students (Hammond, 2015). Additionally, CRT is a serious and powerful tool to accelerate student learning. Students require rigorous content and support to become increasingly more independent and self-directed independent learners versus being



dependent learners. Independent learners temporarily rely on the teacher to carry cognitive load, regularly attempt new tasks without support or scaffolds, have cognitive strategies to get unstuck, and have learned to retrieve information from long-term memory. Dependent learners are not able to do complex, school-oriented learning tasks such as synthesizing and analyzing informational text without continuous support (Hammond, 2015). Dependent learners will sit passively and wait for the teacher to intervene, don't retain information well or "don't get it", and depend on the teacher to do most of the cognitive work. The chronic achievement gap we have in American today has created an epidemic of dependent learners unprepared to do higher order thinking, creative problem solving, and analytical reading and writing called for in the Common Core State Standards. One of the goals of education is not simply to fill students with facts and information but to help them learn how to learn.

In his book, *The Brain-Based Classroom* Dr. Kieran O'Mahoney shares how every year, we learn more and more about how the brain works and its impact on student learning. We see the results of genetics and environment manifest daily across our county. Children either thrive or struggle to learn. Children can learn, they are hardwired learning-machines (O'Mahoney, 2021). The combination of neuroscience and CRT working in concert has demonstrated promise. Building brain power may be the missing link to closing the achievement gap for underperforming and linguistically diverse students (Hammond, 2015). Brain-based teaching strategies from neuroscience and CRT have traditionally been viewed as two separate and unrelated branches of educational practices. However, researchers and educators like Geneva Gay (2010) and Gloria Ladson-Billings (1995) both describe culturally responsive pedagogy as incorporating the

social-emotional, relational, and cognitive aspects of teaching culturally and linguistically diverse students. Cognition and higher order thinking have traditionally and consistently been centered in CRT which makes it a natural partner for neuroscience in the classroom.

### ***Quality Trusting Relationships***

Genuine positive, trusting, meaningful, and caring relationships between teachers, students, and families of racial and culturally diverse culturally diverse students is another concept the research consistently surfaced as a key component of CRT (Gay, 2020; Hammond, 2015; Ladson-Billings, 2009). Children in schools have the need to feel seen, known and loved. Teachers can foster this by validating students' identity, gender, race, culture, family, and seek to better understand the student as a learner, reader, mathematician, scientist, writer, and as a person who is part of the democratic society. However, this ideal is in contrast with the current factory model of schooling where students are compliant and dependent learners (Hammond, 2015). Dr. Bettina Love (2019) named this model of schooling the educational survival complex. In both models' students and learning are secondary to technical or operational aspects of standards, curriculum coverage, testing, sorting, and labeling. There is suffering of Black and Brown students where they are merely left learning to survive and witnessing how schools mimic the unjust world they live in. Consequently, making schools a training place for a life of exhaustion and survival (Love, 2019).

Teachers can combat the factory model and educational survival complex by building positive trusting relationships with students which will help them reach their fullest potential. Teachers can create a safe and inviting learning environment by using soft tones with racial and culturally diverse culturally diverse students when giving

directives and discipline. All human beings are hardwired for relationships and belonging, students are not different. Additionally, teachers need to be thoughtful and reflective about whether their classroom sends a message that students are welcome and that great things are possible for their learning. Having images, artifacts and languages that represent the culture of the students who occupy the classroom sends a message of belonging to students and families. All students should be able to find relatable visuals and props from different ranges of cultures, languages, countries, and backgrounds. Additionally, teachers can also involve students in setting up the classroom (Gay, 2020; Hammond, 2015; Ladson-Billings, 2009).

Teachers can learn about highlights from students' cultures, such as historical figures, accomplishments, and awards. They can find out about local contributions in their students' communities. Students and families may have examples to share, and teachers can tactfully ask families without asking too many direct questions about families' personal lives. Some families, especially immigrant families, may have concerns about sharing personal information with the school due to legal status and other factors. As trust develops, families may be more willing to share. As teachers make conscious efforts to get to know their students they are ensuring equity for their students.

Neuroscience tells us the brain feels safe and relaxed when it is connected to teachers and peers it can trust. This is also known as psychological safety (Boyce, 2019; Hammond 2015; O'Mahony, 2021). Most children are like dandelions. They grow to function surprisingly well regardless of their environment. But other children have a harder time. They are prone to outbursts and oppositional behavior, say, or they are constantly distracted. They are likened to orchids. They do badly in most environments.

But with the right structure, the right support (water, soil, temperature, and covering), they do well. In fact, in those circumstances, they do better than the dandelions. This metaphor originated with W. Thomas Boyce (2019), a pediatrician and professor at the University of California, San Francisco, who wrote the book *The Orchid and the Dandelion*. Research findings now indicate that students who have experienced trauma or have a high level of Adverse Childhood Experiences (ACES) need four significant caring adults in their lives to overcome the trauma and be successful in school (O'Mahony, 2021). ACES are potentially traumatic events that occur in childhood. ACES can include violence, divorce, poverty, discrimination, abuse, and growing up in a family with mental health or substance use problems. Toxic stress from ACES can change brain development and affect how the body responds to stress (Harris et al., 2021).

All of the negative student lived experiences can be offset by positive trusting relationships. When teachers consciously and genuinely aim to build relationships with culturally, ethnically, socioeconomic, and linguistically diverse students they become open and feel seen and heard in the classroom. Creating these conditions is critical to culturally diverse students and their success. When these conditions are present students feel authentically valued and cared for (Harris et al., 2021). They feel as if their teachers want to learn more about them as human beings and scholars. When students are affirmed and validated for their brilliance trust and rapport is fostered in the classroom (Gay, 2010; Hammond, 2015) which breeds an unshakable belief that marginalized students not only can but will improve their academic achievement (Gay, 2010).

### ***Culture of Belonging and Dignity***

Relationships coupled with the idea of unconditional belonging are vital to helping culturally and racially diverse students thrive in schools. Unconditional belonging is the belief that no person should ever have to give up parts of their identity or who they are to fit in or be accepted into a group or system. Human dignity is the recognition that human beings possess a special value intrinsic to their humanity, and as such are worthy of respect simply because they are human beings. Floyd Cobb and John Krownapple (2019) have helped to create a shared language and awareness on this important topic which they describe in their book *Belonging Through a Culture of Dignity: The Keys to Successful Equity*. The first idea they present is regarding the difference between dignity and respect. Cobb and Krownapple (2019) explained that while respect is earned, dignity is something all humans are born with, and it should not be able to be taken from us. They further explained that there is a powerful impact from humiliation as it strips one's dignity. When students feel they are being humiliated in classrooms via microaggressions, stereotype threat or implicit biases they feel an absence of inherent value and worth. There are countless interactions with culturally diverse students in today's classrooms where teachers strip away students' dignity and don't accept them unconditionally for who they are. Students are forced to conform to the educational survival complex (Love, 2019). Students need to feel a sense of belonging before they can achieve academically. Students will feel a sense of belonging when they are treated with dignity and unconditional acceptance.

Maslow puts belonging before achievement (McLeod, 2007). Traditionally schools place academic achievement first, then you can belong. When we bypass belonging, we either create impossible hurdles or pits of despair. In traditional schools

some of the ways to belong include being academically proficient, scoring favorably on standardized assessments, participating in athletics/sports, joining clubs, being part of peer groups (preps, jocks, nerds, etc.), and other school constructs like advance placement classes, International Baccalaureate (IB), and gifted courses. According to Cobb and Krownapple (2019) we all have the need to belong to something: to a family, to a group, to society. We are social creatures, and we need connection and attachment, especially as children when we are completely dependent on adults. Only when our need to belong is satisfied are we able to cooperate, learn, and engage. Having a sense of belonging is something that nearly all students in our schools seek. Yet the groups we join often have this problem: those within the group are seen as better than those outside the group; so, in exchange for being more connected with those in the group, we are less connected to those outside the group. Also, groups are often structured to exclude people and require us to exclude parts of ourselves to belong (Cobb and Krownapple, 2019). Creating school and/or classroom community where students find a sense of belonging and support and still have the freedom and acceptance to be fully themselves, including in the ways they need to change, and grow is empowering and fosters an environment that facilitates learning. Additionally, when a community is created with a sense of belonging so wide, students not only feel more connected to those in the group, but also to those who are not in the group.

According to Judith Pace (2015) *The Charged Classroom* examines the deeply embedded tensions, escalating pressures, and exciting possibilities of the contemporary American public-school classroom. Page (2015) emphasized that teachers are aware of whose culture is and is not represented in the curriculum and the ways in which

differences in social status affect student engagement. In 2016, Latinos numbered 57.5 million (17.9 %), making them the largest ethnic or racial minority group in the United States (U.S. Department of Education Civil Rights Data Collection, 2016). If we ever want to close the achievement/opportunity gap, students need to see themselves in the educators and leaders they engage with in their education experiences. Students also need to see themselves in the curriculum they engage with, especially in literacy and taught an unsanitized version of American history (Gay, 2002; Kelly et al., 2021; Ladson-billings, 1994).

In studying the work of the Black literacy societies Dr. Gholnecsar “Gholdy” Muhammad (2020), found that they had five central goals for learning. Currently, in our educational system, there is one goal of cultivating skills, but Black literacy societies have five, which are more intellectually rigorous and invigorating. Furthermore, they didn’t call their learning objectives standards, but pursuits. While a standard indicates a ceiling, a pursuit means students are learning this for their life, for self-determination, self-reliance, self-empowerment (Muhammad, 2020).

Today, every child should have these ideals. Muhammad (2020) concluded that we need frameworks developed by people of color that are designed to meet the needs of culturally diverse students. Her book, *Cultivating Genius*, was written to do just that and reimagines learning standards for literacy education.

Muhammad (2020) developed the Historically Responsive Literacy framework which draws substantial inspiration from 19th-century Black literary societies through which freed Blacks leveraged literacy to advance the abolition of slavery. Muhammad’s Historically Responsive Literacy framework identifies the following learning pursuits:

Pursuit #1: Identity- Identity is helping students discover who they are, who others say they are (positive or negative), and who they desire to be. Identity is fluid, dynamic, changing and evolving within our sociocultural and sociopolitical environment. Students need time and space in K-12 classrooms to make sense of who they are and who they are not, because student of color are flooded with images and representations in the media literature, and social media that depict their identities in deficit or criminal way.

Pursuit #2: Skill- These are the proficiencies currently taught in (literacy) school, i.e. decoding, vocabulary, citing textual evidence, but it's not what we want students to become smarter about. Skills embody the standards that are promoted by states. They are the competencies, abilities, and expertise deemed to be important by educators for student learning in content areas. The goal is for students to become wiser about their intellect through the development of those skills and authentically see themselves in the learning. Additionally, standards are not typically written with students' identities in mind, especially black and brown children. Schools and instruction have not helped students achieve at their highest, and yet these institutions and systems continue without critical examination or challenge.

Pursuit #3: Intellectualism- Intellect or knowledge is what students learn about various topics, concepts, and paradigms. It's the understanding, enhancement, and exercising of mental powers and capacities that allow for understanding and ability to critique the world around them. Rather than just becoming smarter about skills (fluency and phonics), students should be learning new histories, new people, new places, new languages, and new things. Students equip their minds with intellect and power of



reasoning. Students discuss topics and concepts dealing with politics, human rights, social justice issues, economics, sociology, and business on a national and global scope.

Pursuit #4: Criticality- Criticality is the ability for students to question and interrogate both the world and texts within it to better understand the truth in history, power, oppression, and equity, especially for population of students who have been historically marginalized. It's the capacity to read, write, and think in the context of understanding power, privilege, and oppression. With regard to the concept of criticality and its role in the classroom, Muhammad (2020) argued that if oppression is present in the world, young people need pedagogy and humanizing practices in and out the classroom to deliberately disrupt oppression. It helps students to understand power, privilege, humanity, inequities, oppression, anti-sexism, and anti-racism.

Muhammad (2020) claimed that when education is delivered at this interconnection where identity development, skill development, intellectual development, and criticality meet and are actively nurtured, educators cultivate genius in the young people they serve. We should start with anti-racism because anti-racism is a type of oppression that will help with the understanding of other oppression. Other examples of systems of oppression are sexism, heterosexism, ableism, classism, ageism, and anti-Semitism. Society's institutions, such as government, education, and culture, can all contribute or reinforce the oppression of marginalized social groups while elevating dominant social groups. By calling attention to the historical and organized patterns of mistreatment, inequity is better identified. In the United States, systems of oppression, like systemic racism, are woven into the very foundation of American culture, society, and laws. We have oppression, hurt and wrongdoing in the world, and we want to nurture

the child who does not contribute to other people's hurt and harm. We want to raise the kind of child who isn't silent in the face of other people's harm, and who doesn't make jokes that are hurtful (Muhammad, 2020) .

### ***High Expectations and High Supports***

When legal school segregation ended, it paved the way for integrated schools and for racially and ethnically diverse students to sit in class next to their White peers (*Brown v. Board of Education*, 1954). As desegregation efforts shifted and changed the country's educational landscape, teachers and educational leaders looked for practices to better integrate classrooms. Despite these efforts, American schools are currently deeply segregated. Orfield and Lee (2006) contended that White students attend schools in which 78% of the student body is White, while culturally diverse students attend schools that are more likely to be filled with Black and Brown students. This trend towards segregated schools has been steadily increasing since the late 1970s and negatively affects students in several ways (Gay, 2010). Teachers in schools of mostly culturally diverse students tend to have lower expectations, deficit mindset, and mediocre pedagogical techniques than teachers in mostly White schools (Chu, 2014).

A major theme the research has surfaced is that having high expectations and providing access to rigorous and culturally relevant content to all students ensures equitable outcomes for the students. Boozer et al. (2016) discussed how culturally responsive teaching transforms teachers away from approaching instruction with a deficit mindset. A deficit mindset focuses on what a student cannot do. Instead, culturally responsive teaching identifies and connects students' lived experiences and cultural rings as assets and uses them to create rigorous, student-centered, culturally responsive

instruction. Racially and culturally diverse students need teachers and educational leaders who empathize, not pity them. When educators view students with a positive and growth mindset approach to what they can do and meet students where they are the chances of success are elevated. This is especially important for students from underserved groups whose skills are often underestimated (Chu, 2014).

This approach supports the constructivism learning theory. Constructivism is an approach to learning that holds the idea that students actively construct or make their own knowledge and that reality is determined by the lived experiences of the learner. High standards and access to rigorous content also helps students feel valued and empowered (Tan, 2001). With CRT, students tie their learning to their cultures, race, ethnicity, experiences, interests, and social justice issues that impact their lives. When students see themselves represented in the curriculum, they feel like they belong (Cammarota, 2007). They are more likely to develop the trust it takes to build a relationship with a teacher. Brain science tells us that this sense of belonging makes learning easier and builds students' self-confidence (Breunig, 2016; Hammond, 2015; O'Mahony, 2021).

Constructivists believe in the personal construction of meaning by the learner through lived experience, and that meaning is influenced by the interaction of prior knowledge and new events. Additionally, with high expectations comes high levels of additional time, support, and guidance for students to ensure academic success. Intentional scaffolding, reflective lesson planning with diverse learners in mind, and equitable assessment practice ensure academic success for culturally diverse students (Chu, 2014). Bazron et al. (2005) communicated how matching instruction to cultural norms especially in the area of social skills development and problem-solving skills

supports students from Black American and Latino backgrounds by creating assignments that involve group interaction and creative assessment methods rather than traditional test/quiz taking assessment methods (Dotts, 2015).

Creating an intellectual culture for all learners is essential for student academic success. Students need to have adequate resources, timely actionable feedback, and personal assistance to be able to cultivate positive self-efficacy beliefs and positive growth mindsets (Gay, 2010; Hammond 2015). When teachers have high expectations, have empathy, build rapport, encourage productive struggle, and provide supports students engage academically. The learning process becomes a learning partnership between the teacher, student and family. Additionally, developing a growth mindset in students helps them cultivate an academic mindset as well. An academic mindset is the beliefs, attitudes, or way of perceiving oneself in relation to learning and intellectual work (Hammond, 2015, Tan, 2001). Teachers who understand the growth mindset do everything in their power to unlock that learning.

Carol Dweck (2016) stated that what we believe about ourselves as learners and our ability to be effective are the catalysts for learning. She described a fixed and growth mindset. A growth mindset is described in two words, yet and effort. When students encounter a challenging situation they persevere and put in effort as they have not reached their learning goal, yet. A fixed mindset is being stuck in a deficit way of thinking or that nothing can change. An example of this is when individuals say they don't have a mathematical brain as the reason why they are not very good at math. Teachers who understand the growth mindset do everything in their power to unlock that learning. Dweck's (2016) work supports decades of research findings that tell us students

with positive academic mindsets or growth mindsets are more willing to engage, work harder, and persist during challenging assignments that stretch them.

### *Elevating Student Voice*

Students have the greatest stake in their education but little to no say in how it is delivered. Educational reform is an act of design. The education system has a record of making good progress but still has an opportunity and achievement gap. This lack of agency represents a lost opportunity to accelerate learning and prepare students for a world in which taking initiative and learning new skills are increasingly paramount to success. In the current U.S. education system teaching is done “to students” rather than “with students”. When teachers participate in collaboration with students they engage more, and their agency is elevated.

Student voice is defined as authentic student input in their education ranging from input into the instructional topics, the way students learn, the way schools are designed, or leadership in instruction, school structures, or education policies that can promote meaningful change in education systems, practice, and/or policy by empowering students as change agents, often working in partnership with adult educators (Benner et al., 2019). Increasing student voice is particularly important for historically marginalized populations, including students from Black, Latinx, Native American, and low-income communities as well as students with disabilities. Bryk (2015) encouraged education leaders to observe and consult with the people on the ground who know more about the problem of practice they want to improve. The end user of the education system is the student, so it is imperative that we hear from their perspective on issues that matter to

them (Dotts, 2015; Parris et al., 2018). Elevating students' voices will help create a more just and equitable learning experience for our culturally and racially diverse students.

One of the many ways educational systems are centering students and their experiences, is through the creation of tools and instruments to engage students in safe authentic conversations, a tool that strengthens how leaders actively listen to students and empowers students to tell their stories about their school experiences. These conversation tools are designed with the help of students to help leaders understand that when they're talking to students, they are intentionally seeking their stories, not just trying to validate what adults want to hear. Students are savvy and will tell adults what they want to hear.

States, districts, schools, and teachers can solicit and incorporate student voice in many ways. Some of these strategies fundamentally change the way that schools and systems operate, and others are more marginal. Some examples are student surveys, student-led conferences, journalism, personalized learning, democratic classroom practices, and student government or councils. Each approach comes with its pros and cons. However, the most impactful is centering students and their lived experiences via empathy interviews with open ended questions that solicit students' authentic stories (Bryk, 2015). Empathy interviews are one-on-one conversations that use open-ended questions to elicit stories about specific experiences that help uncover unacknowledged needs (Bryk et al., 2015, Parris et al., 2018). A protocol allows the interviewer to probe more deeply into stories than a more traditional interview. Empathy interviews help ensure that the diverse lived experiences of people are centered in decisions and actions. Although there is well-founded attention to data and research-based strategies in education, it is critical to include lived experience to more accurately and directly

represent the lives of students and families who are often marginalized and excluded from traditional data and research methods (Bryk et al., 2015, Harris et al., 2021).

Additionally, we must allow our students to be their true, authentic selves. As more teachers and educational leaders get to know their students, families, cultures, and ways of being, the less likely they are to unintentionally reinforce negative stereotypes. Conversely, when leaders and teachers fail to integrate and discern the lack of students' voices and leadership in their own classes, it reinforces the status quo where cultural and racial discrimination continues hidden under layers of good intentions (Love, 2019; Parris et al., 2018).

Researchers have found that students have the potential of success when they see themselves in the curriculum and when their culture, gender, racial identities are affirmed and validated (Hollie, 2011; Noguera, 2003). Before students can engage in any learning, skill development, or any other content learning standard, they must first authentically see themselves in the learning. If it does not matter to the student it does not matter (Winks, 2010). When teachers honor students' lived experiences, their languages, their cultures, their ethnicities, their sexual orientations, their gender identities, everything that makes them who they are needs to be valued and uplifted. Trust begins to form, and students become engaged in learning.

There are limited studies that show a direct connection between student engagement and students valuing their education and opportunities to make their voices heard. Many advocates and researchers encourage schools to create opportunities for students to participate in decisions about their education as a means of increasing student engagement and investment in their education (Benner et al., 2019). When educators

create time, space, procedures and protocols to actively listen to students, they are able to examine themes like belonging, systemic barriers, and complex systems that prevent students from fully participating in the educational experience. Subsequently, leaders tend to respond appropriately than if they were just acting on research alone. By centering students and their experiences, leaders gain greater insight into what's happening in their systems.

The complex and rich stories students share express the fullness of their many cultural and racial identities and is not something that can be deciphered from a survey. Behind every piece of data, there's a deeper story if educators are willing to listen. It is only through the students' stories that educators better understand the fullness of students' lived experiences. It's hearing their complex stories, disseminating information beyond just numbers and data, and creating systems for meaningful change. It is difficult but impactful work.

In education, we've tried to fit everyone into a one-size-fits-all box. Not all students are the same and a lot simply don't fit in the box. One-size-fits-all doesn't work. What is important is getting to know each unique learner, the individual student and honoring their brilliance, genius and lived experiences. If we can do that for every child, we can get a lot of students across the graduation finish line and on the way to leading productive lives.

### ***Teacher Bias and Preservice Teachers***

Teachers' knowledge, beliefs, and behaviors are precursors to student outcomes. Crucial to culturally responsive teaching is the notion that what teachers know and believe is a critical first step to ensuring that culturally responsive teaching can occur in



classrooms. In a synthesis of research examining teacher beliefs, Pajares (1992) stated, little will have been accomplished if research into educational beliefs fails to provide insights into the relationship between beliefs, on the one hand, and teacher practices, teacher knowledge, and student outcomes on the other. It is easy to urge teacher educators, for instance, to make educational beliefs a primary focus of their teacher preparations programs, but how are they to do this without research findings that identify beliefs that are consistent with effective teaching practices and student cognitive and affective growth, beliefs that are inconsistent with such aims, and beliefs that may play no significant role.

As teachers search for ways to improve authentic learning, there is a need to reflect on how personal bias affects student achievement. In a study by Almager (2018) she collected insights into teachers' perceptions of their Mexican American students. In Texas, more than 50% of students enrolled in K-12 are Hispanic/Latino. While the Latino population continues to grow, students continue to fall behind academically. Despite plentiful educational reform efforts directed aggressively at addressing achievement disparities, Latino students continue to underachieve in school. Researchers citing evidence that achievement disparities among Latino youth who are Multilanguage learners (formally known as English language learners) are most pronounced often focus on ways to remove language as a barrier to achievement (Lopez, 2016; Luna et al., 2015).

Cultural misconceptions do impact student success as teachers search for ways to improve learning. There is a need to reflect on how personal bias affects achievement. Teachers in schools have the power to see things through their own lenses and decide which students are worthy of learning. Today's society, the media, Hollywood, racism,

and teachers' personal upbringings all create negative stereotypes or criminalizing narratives of culturally diverse students. There is a disconnect between teacher and student which creates an obstacle for learning. Teachers are unable to identify and connect with poor culturally diverse students in predominantly minority districts (Almager, 2018; Hughes, 2008; Vaught & Castagno, 2008).

Almager (2018) discussed the Educational Latino Pipeline in the state of Texas where out of 100 Latino students who entered school only 46 would graduate from high school, 26 would enroll in a university and only eight would persist and graduate with a college degree. This is attributed to most teachers being white and the disconnect between teachers and students. A culture of opposition and tension was created due to teachers not fully understanding and embracing the Mexican culture, language, and ways of being for these students. Students were in compliance mode and feared punishment for speaking their native Spanish language (Alamger. 2018; Luna et al., 2015; Wozolek & Atif, 2022).

White teachers experienced school differently. As a result, their personal understanding of oppression based on race, ethnicity, class, and language was limited due to their place in the dominant society and their communities. Furthermore, belief systems may have contributed to the deficit thinking of some teachers and explain school failures among students in poverty and among culturally, racially, and linguistically diverse student groups (Hughes, 2008; Vaught & Castagno, 2008).

Pajares (1992) suggested teacher beliefs about ethnically and racially diverse students ultimately will prove the most valuable psychological construct to teacher education. Nevertheless, Pajares (1992) discussed that all teachers hold beliefs about their

work, about the students and families they teach, about the subject matter they teach or about their professional roles and responsibilities. There is general agreement that teacher beliefs have a strong impact on how they address the educational process and more specifically, on the way they perform in class with culturally and racially diverse students. Teachers play a crucial role in shaping the learning experiences of culturally and racially diverse students. Their beliefs and attitudes towards these students can have a significant impact on their academic success (Parris et al., 2018).

Teachers who hold negative beliefs about culturally diverse students may inadvertently perpetuate stereotypes and biases, leading to lower academic performance and self-esteem. Conversely, teachers who hold positive beliefs about these students can create an inclusive and supportive learning environment that promotes student success. These teachers recognize the unique challenges faced by culturally and racially diverse students and are committed to providing culturally responsive instruction that meets their needs. By fostering a strong connection with culturally diverse students and empowering them to reach their full potential, teachers can help to narrow the achievement gap and promote a more equitable education system (Vaught and Castagno, 2008).

Teachers who are aware of their biases and prejudices tend to be more effective in creating inclusive learning environments that promote equity and social justice. They understand that cultural competence is not only about understanding different cultures, but also about embracing diversity and recognizing the strengths and assets that culturally diverse students bring to the classroom (Hughes, 2008; Love, 2019). Establishing evidence favoring beliefs, and their respective behaviors, is imperative to address the limitations that have prevented the institutionalization of CRT.

CRT involves acknowledging and valuing students' cultural backgrounds, experiences and perspectives, and using this knowledge to create meaningful and relevant learning experiences.

According to Brand and Wallace (2012), The US Census states that Americans under the age of five are a majority- minority with 54% of this population from minority backgrounds. As our country continues to grow as a rich, diverse multicultural nation, it is imperative that colleges and universities prepare future teachers to embrace this diversity and provide experiences that affirm all students, families, and communities. Preservice programs designed to help teacher candidates understand the political nature of schools, support them in becoming skilled in identifying inequities in their schools and classrooms, and adept at reorganizing their classrooms and schools to be safe and inclusive for all students, will help make learning accessible, meaningful, and relevant for culturally diverse students.

Research by Boozer et al. (2016) consistently highlighted that preservice teachers who were exposed or trained on CRT were met with institutional practices that did not honor the diverse backgrounds and cultures of student in their classrooms and schools. There is a need for mentor teachers in the field to receive professional development on the approach and underpinnings of CRT. This will help preservice teachers who do ascribe to the principles of CRT to reach students from diverse backgrounds. However, Brand & Wallace's (2012) research revealed that less than 9% of white teachers expressed an interest in working with culturally diverse students in urban centers. A majority declined and preferred to work in a more affluent suburban school district. Furthermore, Mosley (2010) asserted that when white teachers encounter anti-racist

pedagogy, they rely on liberal values and normative viewpoints that do not honor and value students' culture, race, language, and ways of being. Students are covertly informed to leave their identity or true selves at the door, and to adopt or conform to the dominant individualistic Eurocentric cultures which shape their learning experience. For culturally diverse students, this can result in the loss of identity, engagement, sense of belonging and decreased academic performance.

For a majority of teachers in our educational system the need to interrogate their own personal beliefs, bias, prejudices, dispositions are key to meeting the needs of the racially and culturally diverse students (Brand & Wallace, 2012). Those ideals and influences don't stop once they step foot in the schoolhouse and cross the classroom threshold. There needs to be a dismantling of their own racism, sexism, and homophobia. Research has suggested that cultivating critical consciousness, the ability to recognize and analyze systems of inequality and the commitment to act against these systems, can be a gateway to academic motivation and achievement for marginalized students. For students to look at the world in a critical and questioning manner, the teacher must first be able to do the same.

## **Conclusion**

Assets-based pedagogies are teaching methods, practices and approaches which focus on the strengths of all students, value diversity and culture, language, and other important traits. One of the key benefits of assets-based pedagogies is that they help to improve student achievement. By focusing on what students can do, rather than what they can't do, teachers can help students to build confidence in their abilities and develop a

growth mindset. This can lead to increased engagement in learning, improved academic performance, and greater success in their future careers.

Sleeter (2012) has contended that CRT has failed to be institutionalized because of limited understanding about what it represents. She explains that CRT is too often understood in simplistic ways that include cultural celebrations, trivialization, essentializing culture, and substituting cultural for political analysis of inequities. Moreover, of the literature that does capture CRT, far too little systematically documents its impact on student learning (Luna et al., 2015; Sleeter, 2012). This study aimed to systematically document the impact culturally responsive strategies have on student learning. As an alternative, much literature either shows what CRT looks like and/or connects culturally responsive pedagogy with student engagement, reasonably suggesting that academic learning follows engagement. This view is shared by other scholars who have conducted reviews on the CRT research (Genao, 2016; Lopez, 2016). Moving forward researchers must show a clear connection between teachers centering students' cultures, languages, antiracist practices, and ways of being with academic achievement.

CRT incorporates students' backgrounds, experiences, and cultures into the classroom in meaningful ways. Coupled with powerful instruction focused on using effective instructional strategies, growth mindset, asset-based dispositions by teachers, and curricula that support all learners culturally and linguistically diverse students can thrive academically because they feel seen, heard, and valued. This creates an environment where students' cultural perspectives and backgrounds are an asset to the learning process rather than a barrier to success. Overall, the intentional focus on CRT

further reinforces good quality instruction to create an inclusive classroom culture that enables every student to reach their full academic potential.

Moreover, assets-based pedagogies also promote a sense of belonging and connectedness among students. By valuing and celebrating the diversity of their students' backgrounds and experiences, teachers can create a welcoming and inclusive learning environment where all students feel valued and respected. This can help to reduce the achievement gap, particularly for students from marginalized or underrepresented communities and can create an inclusive and supportive learning environment that promotes academic success and prepares students for their future.

### **Chapter Three: Methods**

This chapter provides the methodology and research design used in this study. The researcher aimed to conduct a causal-comparative research design study and a correlation design to discover the differences and relationships in students' academic achievement on the state's standardized SBA (scaled scores) that exist between two groups of teachers based on their cultural competence level (high and low). A causal-comparative design is a research design that seeks to find relationships between independent and dependent variables after an action or event has already occurred. The researcher's goal was to determine whether the independent variable affected the outcome, or dependent variable, by comparing two groups of individual teachers (high and low cultural competence). For decades, researchers have discovered that educators in public schools have devalued the potential for academic success among culturally and linguistically diverse students, setting low expectations for them and thinking of cultural and linguistic differences as barriers rather than assets to learning. Latino/a students comprise the fastest growing student population in the United States (Chun, 2015; Arellanes, 2019), but experience the lowest rates of academic achievement and school completion of all ethnic and racial groups.

This chapter is organized in the following manner. It will review the purpose and research questions, state the research design used in the study, research ethics and human subject protection, population and sample, instrumentation, data collection procedures, data analysis, validating the findings, and limitations of the study.



## **Purpose and Research Questions**

The researcher sought to conduct a causal-comparative research design study to explore the differences in students' academic achievement on the state's standardized SBA scaled scores that exist between two groups of teachers' high/low cultural competence level.

In addition, the researcher also conducted a correlational analysis. This analysis looked at the relationships between teachers' cultural competency and students' academic achievement on a standardized assessment.

### **Research questions/Hypothesis:**

1. Is there a significant difference in the academic achievement of students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

2. Is there a significant difference in the academic achievement of Latino students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence.

*Null Hypothesis:* There is no significant difference in Latino students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

3. Is there a significant difference in the academic achievement of Latino male students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in Latino male students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

4. Is there a significant relationship between the academic achievement of students on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between students' performance on the SBA in mathematics and ELA and teachers' score on the ESSD instrument.

5. Is there a significant relationship between Latino students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between Latino students' performance on the SBA in mathematics and ELA and teachers' score on the ESSD instrument.

6. Is there a significant relationship between Latino male students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between Latino male students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

## Population

This study took place in a rural school district in the Pacific Northwest with a high Latino/a student population, high percentage of students eligible for free and reduced-priced lunch, and many multilanguage learners. The district is comprised of three elementary schools, one middle school, one comprehensive high school and an alternative learning environment school. The district has 3,661 enrolled students of which 93.3% identify as Latino/a, 5.8% identify as white, and .04% identify as two or more races. Gender composition is 48.5% female and 51.5% male. Additionally, 30.1% are multilingual learners who receive English language supports under the state's Transitional Bilingual Instructional Program. Ten-point one percent are classified as migrate students, whose families move for work in agriculture, dairy, fish, and timber industries. About 15 % are identified as students with disabilities and receive special education services. Lastly, 84.9 % are considered low-income.

The teacher composition in the district is 207 classroom teachers of which 66.7% identify as female and 33.3% as male. In respect to race and ethnicity 54.6% are white, 41.5% are Latino/a, .05% African American/black, and 3.4% identify as two or more races. For the study 39 third -fifth grade teachers were surveyed. The criteria for selection were certificated teachers who taught third, fourth or fifth grade in school year 2021-2022. The teacher gender make up was nine males (24%) and thirty females (76%). Fifteen teachers or 38.46% identified as white, nineteen or 48.71 identify as Latino/a, one or 2.5 identified as Pacific Islander, and one or 2.5 % identified as two or more races.

Additionally, SBA achievement data in mathematics and reading was collected and analyzed for 789 students in third through fifth grade students in the three different

elementary schools and their respective teachers. The makeup of students by grade level was 241 third grade, 249 fourth grade, and 299 fifth grade students. The researcher wanted to see if there was a correlation or relationship between the level of cultural competency of the teacher and their students' academic achievement on the state's standardized assessment.

### **Sample Size**

The researcher chose all 39 third-fifth grade certificated teachers to be surveyed because the SBA is administered starting in third grade and students stay with one teacher for the entire instructional day. Once students move from elementary to secondary campuses (sixth grade) they have multiple teachers through the instructional day, whereas in the elementary grade students were instructed by the same teacher all day. SBA for school year 2022 data was collected for all 789 students in grades three through five (241 third grade, 249 fourth grade, and 299 fifth grade students). Teachers were then placed in two groups, high cultural competence, and low cultural competence. Teachers completed the ESSD. To score the responses, the researcher counted the percentage of items that the respondents matched with the desired response and got an overall index score. Once all of the responses were scored using the one-four scale, the mean or average was calculated which gave the overall index score. The researcher used a median split method to determine the two dichotomous groups of teachers. A median split is one method for turning a continuous variable into a categorical one in order to find the median of the continuous variable. Any value below the median is put in the category "Low" and every value above it is labeled "High". Students were also placed into groups: pass and not pass

the SBA. The percentage of students who passed the SBA in math and ELA per teacher was calculated and used in the analysis.

### **Research Design**

The researcher conducted a quantitative causal-comparative retrospective research study. Causal-comparative research is a methodology used to illustrate relationships between independent and dependent variables and to explore reasons behind existing differences in two or more groups. This type of study seeks to understand causation by analyzing data collected after an event or phenomenon has occurred. The researcher studied cause and effect in retrospect. This helped determine the consequences or potential causes of differences already existing in student performance as measured by scores on the SBA assessment. In this design the set of individuals or groups in the study were not randomly selected. Additionally, the researcher took advantage of pre-existing data where there was no manipulation, intervention, or random assignment of the participants. However, the variables may have been affected by external factors present in the environment not controlled by the researcher.

The aim in this study was to identify causality and then attempt to derive conclusions or consequences from the pre-existing variables. The researcher looked for differences between the two groups of teachers to see if they existed, then looked back in time and determined the conditions that might have resulted in the observed differences. Conclusions and assertions were statistically analyzed to identify relationships and supported with empirical research. Causal-comparative research seeks to identify relationships among variables. Associations were identified in causal-comparative study, but causation was not fully established. A quantitative causal comparative retrospective

research study is a rigorous scientific approach that helped the researcher draw conclusions about cause-and-effect relationships in the real world. Because it deals with variables that have already occurred or exist, causal-comparative research is also referred to as ex post facto research. These studies are less expensive and convenient than true experimental studies, even if we can't be confident about drawing cause- and -effect conclusions from the results. Causal comparative studies can be used to guide and pursue further research.

The researchers sought to find relationships between teachers' cultural competence (independent variable) and percentage of students meeting standards on the SBA (dependent variable) and differences based on level of cultural competence. The SBA is a summative assessment measure of students' progress toward college and career readiness in ELA/literacy and math. The assessment is administered yearly in grades 3-11. Third -fifth grade teachers were surveyed to measure their cultural competence using the ESSD instrument. Teachers scored into one of two groups. Group one was teachers with high cultural competence and group two were teachers with low cultural competence. SBA data was collected and a percentage of students meeting grade level standard was calculated for each teacher in the study.

Additionally, the researcher also conducted a correlational analysis. This analysis looked at the relationships between teachers' cultural competency and students' academic achievement on a standardized assessment. In this correlational study the researcher did not manipulate or control any of the variables. The researcher used the ESSD survey to collect data and measure teacher's cultural competency (high and low) and analyzed secondary student achievement data. There are three possible outcomes of a correlation

study: a positive correlation, a negative correlation, or no correlation. The researcher presented the results using a numerical values called the correlation coefficient. A correlation coefficient is a statistical measure that calculates the strength of the relationship between two variables. It can range from  $-1.00$  (negative) to  $+1.00$  (positive). A correlation coefficient of 0 indicates no correlation or no relationship between the two variables. A series of Pearson  $r$  Correlations were calculated. The purpose of these correlations was to examine the direction and strength of the relationship between teachers' cultural competence and student performance on the ELA and mathematics examine.

### **Instrumentation**

The Educators Scale of Student Diversity (ESSD) instrument, which reliably and validly measures cultural competency in educators, was used to measure teachers' cultural competence for this study. Patel (2018), creator of the ESSD instrument, states that current measures which attempt to measure a teacher's cultural competence lack in both a wide theoretical basis of cultural competency as it relates to educators in diverse teaching environments and in reported psychometric quality. The ESSD was derived from a wide range of theoretical constructs (culturally responsive instruction, multicultural education, and critical race theory) that encompass the experience of modern teachers in diverse environments. The ESSD was factor analyzed for validation. The factor analysis resulted in a 22-item instrument comprising of four subscales: Race and Bias, Culturally Responsive Instruction, Sociopolitical Context, and Diversity in Education. Cronbach's alpha, an assessment of internal consistency reliability, was .88 for the scale, which was higher than the suggested minimum of .70, indicating adequate

reliability. A correlational analysis was performed with the Cultural Diversity Awareness Index to establish convergent validity and showed a moderate positive relationship. It also followed suggested steps in scale creation that measure multiple types of validity and reliability, i.e., pilot study and adjustments (Patel, 2018).

Measuring a teacher's cultural competence objectively was difficult as there is variance across all cultures, and it is a construct that is difficult to define. Culture is an extremely personal matter for people. It encompasses deep-seated beliefs, world views, practices and rituals, which shape behavior. Teachers gain knowledge as they become more aware of their students' cultures, which helps them develop and improve skills. But culture is fluid and varies greatly in modern classrooms. Therefore, the building of cultural competency takes constant work and is an ongoing process. The first stage of cultural competency, cultural awareness, requires training and experiences that reflect the populations a teacher must work with. Reliable and valid measurement of cultural awareness is necessary to assist teachers in assessing their own awareness, just as reliable and valid assessments of student skills and knowledge are required in the classroom (Dickson et al., 2016). Though there were other existing measures of cultural competence that are widely used, the ESSD instrument helped the researcher to better measure teachers' cultural competence. The ESSD instrument is a relatively new instrument which reliably and validly measures cultural competency in educators (Patel, 2018).

The SBA was the instrument used to gather student data. The test is a valid and reliable standardized assessment administered in twenty states. Validity refers to the degree to which each interpretation or use of a test score is supported by the accumulated evidence (American Educational Research Association, American Psychological



Association, & National Council on Measurement in Education, 2014). It constitutes the central notion underlying the development, administration, and scoring of a test and the uses and interpretations of test scores. This information supported the validity of the Smarter Balanced summative assessment for one or more of its purposes.

The purpose of the Smarter Balanced Summative Assessments was to assess student knowledge and skills in ELA literacy and mathematics. Smarter Balanced tests provide verifiable, accurate, and representative data that helps states, districts, and schools see learning trends from multiple vantage points. These measures help educators identify and address gaps in knowledge or skills early on, so students get the support they need for success in higher grades and become ready for college or a career (Smarter Balanced, 2022).

The SBA's are computer-adaptive tests that adjust the difficulty of questions on the basis of the answer's students give. As students answer correctly, they receive more challenging questions. Incorrect answers trigger easier questions. This approach helps keep students engaged, shortens testing time for many students, and provides more accurate results, especially for low- or high-achieving students (Smarter Balanced, 2022).

Smarter Balanced used item quality control procedures that ensure test items measure the knowledge, skills, and abilities specified in the test blueprint and work well together in this respect. The expected outcome of these and other test administration and item quality control procedures is high reliability and low measurement error. Part of the test validity is that scores were consistent and precise enough to be useful for intended purposes. If scores are meaningful, tests deliver the same results under repeated administration to the same student or for students of the same ability. In addition, the

range of certainty around the score should be small enough to support educational decisions. The reliability and precision of a test are examined through analysis of measurement error and other test properties in simulated and operational conditions (Smarter Balanced, 2022).

### **Data Collection Procedures**

Data was collected via a Google Forms survey. The instrument was administered in the form of a Google Forms survey to selected third-fifth grade teachers in the study. The ESSD instrument consisted of 22 items on a four-point scale from which respondents had to select responses ranging from strongly agree to strongly disagree in relation to the statement. Google Forms is an online form generator tool that is utilized to collect a variety of data quickly. The researcher sent all the participating third-fifth teachers an email with the link to the ESSD survey. Thirty-nine teachers were surveyed. Thirty teachers responded to the survey. The ideal sample size was 29 responses based on a sample size calculator. The larger the sample size, the more accurate the results are. In a survey of 39 teachers, the response rate aim was 75% or higher to ensure enough data to draw meaningful insights and conclusions. Thirty responses fell within the allotted range. As teachers completed the ESSD survey the data was collected in a Google form and automatically imported into a Google sheet then downloaded into an Excel spreadsheet and saved as data file. The Excel file was saved on the researcher's laptop and then saved to a thumb drive which was stored in a safe locked location.

The researcher obtained SBA data from the district assessment coordinator for school year 2021-2022 for mathematics and ELA for all third-fifth grade students. The data was shared via an Excel spreadsheet. The Excel file was saved on the researcher's

laptop and then saved to a thumb drive which was stored in a safe locked location. The SBA is summative assessment measure of students' progress toward college and career readiness in ELA/literacy and math. These assessments are given at the end of the school year 2022 in grades third through eleventh (3-11) and consisted of two parts: a computer adaptive test and a performance task. SBA assessment system provided accurate measures of achievement and growth toward readiness benchmarks while challenging students to think critically and solve real-world problems.

### **Data Analysis**

Data was collected, organized, and uploaded into Statistical Package for the Social Sciences (SPSS) version 28. SPSS is a software program used by researchers in various disciplines for quantitative analysis of complex data. SPSS has a robust set of features that allowed the researcher the ability to organize and extract actionable insights from the data. Advanced statistical procedures using SPSS helped ensure high accuracy and quality decision formulation.

The researcher utilized descriptive and inferential statistics to demonstrate and determine whether the means of two groups were statistically different from one another using an independent  $t$ -test. The  $t$ -test determined if a significant difference exists between teachers with high cultural competence and teachers with low cultural competence on student academic achievement in mathematics and ELA on the SBA (Field, 2013).

The data collected for this study involved the percentage of students passing the SBA taught by high and low performing teachers. The assessment scores were compared between the two groups of teachers using the independent samples  $t$ -test.

The results of the *t*-test provided a *t*-statistic value and a *p*-value. The *t*-statistic value indicated the magnitude of the difference between the means of the two groups of teachers. The *p*-value indicated the probability of observing a difference as extreme or more extreme than the one observed, assuming the null hypothesis was true.

A *p*-value less than the significance level (usually set at 0.05), indicates there is a significant difference in student achievement between the two groups of teachers. In this study, it would suggest that teachers with high cultural competence had a positive impact on student achievement compared to teachers with low cultural competence.

Conversely, if the *p*-value is greater than the significance level, it would be concluded that there is no significant difference in student achievement between the two groups of teachers. It would suggest that there is no evidence to support the claim that high performing teachers had a positive impact on student achievement compared to the low performing teachers.

Overall, the independent samples *t*-test was a useful statistical tool to analyze data in the causal comparative study comparing two groups of teachers on student achievement on a standardized assessment. This helped the researchers draw inferences and generalize about population data from sample data.

To answer research question two an independent samples *t* test was performed. For the purpose of this study, the independent variable was cultural competence and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was Latino student performance on SBA in mathematics and ELA. Both academic variables were treated as continuous or interval data.

In addition to the abovementioned independent samples *t* test a series of Pearson *r* Correlations were performed. The purpose of these correlations was to examine the relationship between teachers' cultural competence and the percent of students' performance with passing the ELA and mathematics assessments. For this study teachers' cultural competence and percent of students passing ELA and mathematics were both treated as continuous variables. A *p*-value of less than .05 was used to determine if the relationship between cultural competence and ELA and cultural competence and mathematics was statistically significant. In addition, the Pearson *r* Correlation is beneficial because it allowed for the determination of both the strength and the direction of the relationship, as well as whether it was significant or not. Correlations ranging from .1 to .3 were considered weak, .4 to .6 moderate, and .7 or greater were considered strong in nature. Correlations whereby one of the variables has a negative number were interpreted as a negative relationship between the two variables (i.e., when one variable increases the other decreases, respectively). If the correlation coefficient was positive the relationship was interpreted as a positive one (i.e., when one variable increases the other variable increases).

Inferential statistics were used to determine whether the mean for the groups were statistically significantly different from each other. Causal-comparative research cannot definitively determine that one variable has caused something to occur. The researcher reported the findings of the causal-comparative study as a possible effect or possible cause of the student achievement results on the SBA. The researcher did not simply summarize the data; he used it to predict what would happen regarding an entirely different body of data. It allowed the researcher to draw conclusions based on

extrapolations. This is a fundamental difference from descriptive statistics which merely summarize the data that has been measured. Inferential statistics suggest but cannot absolutely prove an explanation or cause-and-effect relationship.

The main purpose of descriptive statistics was to provide information about a data set. Descriptive statistics summarized the large amount of data into several useful bits of information like the percentage of students passing the SBA in each teachers' classroom. The researcher interpreted the descriptive and inferential statistics and wrote the results in chapter four of this study.

### **Research Ethical Considerations**

The researcher ensured the Belmont basic ethical principles were followed throughout the study and data collection process. The three basic principles, among those generally accepted in our cultural tradition, are particularly relevant to the ethics of research involving human subjects: the principles of respect for people, beneficence, and justice. The expression "basic ethical principles" refers to those general judgments that serve as a basic justification for the many particular ethical prescriptions and evaluations of human actions. Additionally, the researcher acted in a professional and ethical manner to protect all participants from risk or harm.

Respect for persons incorporates at least two ethical convictions: first, that individuals were treated as autonomous agents, and second, that persons with diminished autonomy were entitled to protection. The principle of respect for persons thus divides into two separate moral requirements: the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy. The researcher ensured getting informed consent to demonstrate respect for persons. This required that subjects, to the

degree that they are capable, be given the opportunity to choose what shall or shall not happen to them. This opportunity was provided when adequate standards for informed consent were satisfied. Participants had the option to not take the survey or not answer particular questions. Additionally, all staff and student data was deidentified to protect students' and teachers' privacy.

Beneficence, all participants were treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being. Such treatment falls under the principle of beneficence. The term "beneficence" is often understood to cover acts of kindness or charity that go beyond strict obligation. In this study, beneficence was understood in a stronger sense, as an obligation. Two general rules were formulated as complementary expressions of beneficent actions in this sense: (1) do not harm and (2) maximize possible benefits and minimize possible harms.

Justice was the last of Belmont's three basic ethical principles. Justice raises questions about who ought to receive the benefits of research and who ought to bear its burdens. Following a provoking discussion of equality and differential treatment, the Belmont Report considered the need to scrutinize whether some classes of people, economically disadvantaged, racial and ethnic minorities, or persons confined to institutions, are systematically selected as research subjects due to their position or vulnerability rather than their connection to the problem being researched. In this research study all participants stood to benefit from its findings. No one had a subtractive experience as students had already taken the SBA and teachers willingly provided data via a survey. All data was deidentified to ensure participants are unidentifiable and to

protect all participants identity as students are a vulnerable population. Numbers were used rather than actual participants' names.

Additionally, the researcher received approval for the study from the institution's Internal Review Board (IRB) and was assigned IRB tracking number # 222306013. There were minimal risks for all participants.

### **Conclusion/Summary**

The researcher aimed to conduct a causal-comparative research design study to explore the differences that exist between a teachers' cultural competence level (high/low) and their students' academic achievement in mathematics and ELA on the state's standardized assessment. Data was collected and analyzed to determine if one group of teachers was different from the other (high/low cultural competence). Teachers were surveyed using a Google Form and students' SBA data was collected and analyzed. Inferential and descriptive statistics were used to measure statistical difference in the teacher groups and student achievement. The aim was to discern if having a teacher with high cultural competence results in higher academic achievement for their respective students.



## Chapter Four: Results

This chapter will describe the results of the study, including the analyses performed to answer the research questions. The survey data was collected from a sample of 39 third -fifth grade teachers in a medium sized rural school district in the Pacific Northwest. The data collection period was toward the end of the school year. Data analysis was performed using SPSS 28. Prior to the analysis, the survey results were examined for missingness. Of the 39 total respondents, nine respondents did not complete the surveys and were excluded from the analysis.

For decades, researchers have discovered that educators in public schools have devalued the potential for academic success among culturally and linguistically diverse culturally diverse students, setting low expectations for them and viewing the cultural and linguistic differences as barriers rather than assets to learning (Gay, 2000; Hammond, 2015; Ladson-Billings, 1995; Safir & Dugan, 2021). Latino/a students comprise the fastest growing student population in the United States (Arellanes, 2019; Chun, 2015; Gándara, 2009), but experience the lowest rates of academic achievement and school completion of all ethnic and racial groups.

Racial inequities are pervasive in the American schooling. According to Cheatham et al. (2020), racial inequities exist when two or more races are not standing on approximately equal footing. Furthermore, they espouse racial inequities are the manifestation of a centuries long history of racist policies and practices which privileged Whites and excluded Indigenous and people of color. America's racist past which has not been resolved and which exists to this day, influences every aspect our current reality evidenced by the durability of racial disparities across almost every measure in society.

The purpose of this research study is to further explore the impacts of CRT on culturally and linguistically diverse students. The term “Culturally Responsive Teaching” has been around for decades, nevertheless it seems to have gotten more attention in recent years. CRT is a research-based approach to teaching. It connects students’ cultures, languages, and life experiences with what they learn in school addressing these qualities as assets rather than liabilities. These connections help students access rigorous curriculum and develop higher-level academic skills.

Our brains are wired to make connections. It’s easier for our brains to learn and store information when we have a hook to hang it on. That hook is background knowledge. Students bring this knowledge to the classroom every day. While it is encouraging, there is concern due to the political and social climate of our country and world that the approach will not be embraced by educators. CRT helps ensure all our students become critical thinkers and learners in a psychologically safe learning environment.

### **Research Questions/Hypothesis**

1. Is there a significant difference in the academic achievement of students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in students’ performance on the SBA in mathematics and ELA between teachers’ low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

2. Is there a significant difference in the academic achievement of Latino students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in Latino students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

3. Is there a significant difference in the academic achievement of Latino male students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

*Null Hypothesis:* There is no significant difference in Latino male students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

4. Is there a significant relationship between the academic achievement of students on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between students' performance on the SBA in mathematics and ELA and teachers' score on the ESSD instrument.

5. Is there here a significant relationship between Latino students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between Latino students' performance on the SBA in mathematics and ELA and teachers' score on the ESSD instrument.

6. Is there here a significant relationship between Latino male students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

*Null Hypothesis:* There is no significant relationship between Latino male students' performance on the SBA in mathematics and ELA between teachers' low level of understanding student diversity as measured by score on the ESSD instrument versus teachers with high level of understanding student diversity.

For the purpose of this analysis section descriptive statistics and inferential statistics were reported. Data was collected, organized, and uploaded into SPSS version 28. SPSS is a software program used by researchers in various disciplines for quantitative analysis of complex data. SPSS has a robust set of features that allowed the researcher the ability to organize and extract actionable insights from the data. Advanced statistical procedures using SPSS helped ensure high cultural competency and quality decision formulation.

The researcher utilized descriptive and inferential statistics to demonstrate and determine whether the means of two groups were statistically different from one another using an independent *t*-test. The *t*-test determined if a significant difference existed between teachers with high cultural competence and teachers with low cultural competence on student academic achievement in mathematics and ELA on the SBA. This helped the researchers draw inferences and generalize about population from sample data.

Prior to running the abovementioned analysis test of basic assumptions were performed. These included: normality and outliers. Normality was established through visual inspection of Q-Q plots. Examination of these Q-Q plots revealed that the data was normally distributed, within reason. Outliers were identified through an examination of

box plots. Visual inspection of the box plots found no outliers. Based on the assumptions being met, a series of independent samples  $t$ -tests were performed to answer the above-mentioned research questions.

To answer research question one an independent samples  $t$ -test was performed. For this study, the independent variable was cultural competence and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was student performance on SBA in ELA and mathematics. Both academic variables were treated as continuous or interval data. Table 1 provides an overview of the descriptive statistics for the dependent variable (i.e., *student performance on the SBA in ELA and mathematics*) across the independent variables (i.e., *cultural competence*).

Examination of the Levene's test ( $F = 2.00$ ;  $p = .17$ ) indicated that the assumption of homogeneity was met and therefore equal variances were assumed. Further examination of Table 1 revealed that there were no significant differences in student performance in ELA ( $p = .385$ ) nor mathematics ( $p = .477$ ) by cultural competence level. More specifically, while there were no significant differences found it should be noted that teachers with higher ESSD had lower means percentage of students passing ELA means ( $M = 33.73$ ,  $SD = 10.32$ ) compared to teachers with lower ( $M = 37.86$ ,  $SD = 14.92$ ); however, for mathematics the opposite was true. Teachers who had higher ESSD had a higher mean ( $M = 47.20$ ,  $SD = 16.93$ ) compared to those with lower ( $M = 42.87$ ,  $SD = 16.02$ ). Thus, based on the results of the independent sample  $t$ -test it failed to reject the null hypothesis.

**Table 1**

***T-Test Analysis for Cultural Competence by all Students in ELA and Mathematics***

	High		Low		<i>df</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
ELA % Passing*	33.73%	10.32%	37.87%	16.93%	28	-.883	.385	-.322
Math % Passing	47.20%	16.93%	42.87%	16.02%	28	.720	.477	.263

*Note.* The results of the Levene's test not significant and therefore the groups were assumed to have equal variances.

To answer research question two an independent samples *t*-test was performed. For the purpose of this study, the independent variable was cultural competence and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was Latino student performance on SBA in mathematics and ELA. Both academic variables were treated as continuous or interval data. Table 2 provides an overview of the descriptive statistics for the dependent variables (i.e., Latino student performance on the SBA in mathematics and ELA) across the independent variable (i.e., cultural competence. Examination of the Levene's test ( $F = 1.54$ ;  $p = .23$ ) indicated that the assumption of homogeneity was met and therefore equal variances were assumed. Further examination of Table 2 revealed that there was no significant difference in student performance in ELA ( $p = .158$ ) nor mathematics ( $p = .662$ ) by cultural competence level. More specifically, while there were no significant differences found it should be noted that teachers with higher ESSD had a lower mean percentage of students passing ELA means ( $M = 30.34$ ,  $SD = 10.44$ ) compared to teachers with low ESSD ( $M = 37.01$ ,  $SD = 14.43$ ). Similar results were true for mathematics with teachers with higher ESSD having a higher mean ( $M = 44.13$ ,  $SD = 16.38$ ) compared to low ESSD ( $M = 47.14$ ,  $SD = 20.63$ ).

Thus, based on the results of the independent sample *t*-test there was insufficient evidence to reject the null hypothesis.

**Table 2**

***Results of Independent Samples T-Test for Cultural Competence by Latino Students' ELA and Mathematics***

	High		Low		<i>t</i>	<i>p</i>	Cohen's <i>d</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				<i>df</i>
ELA % Passing*	30.34%	10.44%	37.01%	14.43%	28	-1.450	.158	-.529
Math % Passing	44.13%	16.38%	47.14%	20.63%	28	.720	.662	-.161

*Note.* Results of Levene's test not significant and therefore equal variances assumed.

To answer research question three an independent samples *t*-test was performed. For this study, the independent variable was cultural competence and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was Latino male student performance on SBA in mathematics and ELA. Both academic variables were treated as continuous or interval data. Table 3 provides an overview of the descriptive statistics for the dependent variables (i.e., Latino male student performance on the SBA in mathematics and ELA across the independent variable (i.e., cultural competence). Examination of the Levene's test ( $F = .084$ ;  $p = .77$ ) indicated that the assumption of homogeneity was met and therefore equal variances were assumed. Further examination of table 3 revealed that there was no statistically significant difference in student performance in ELA ( $p = .1$ ) nor mathematics ( $p = .662$ ) by cultural competence level. More specifically, while there was no significant differences found it should be noted that teachers with higher ESSD had lower means percentage of students passing ELA ( $M =$

29.75,  $SD = 12.33$ ) compared to teachers with low ESSD ( $M = 37.10$ ,  $SD = 13.79$ ).

Similar results were true for mathematics with teachers with higher ESSD having higher means ( $M = 44.41$ ,  $SD = 19.33$ ) compared to low ESSD ( $M = 47.87$ ,  $SD = 24.22$ ). Thus, based on the results of the independent sample  $t$ -test there was insufficient evidence to reject the null hypothesis.

**Table 3**

***Results of Independent Samples T- Test for Cultural Competence by Latino Male Students' ELA and Mathematics***

	High		Low		<i>df</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
ELA % Passing*	29.75%	12.33%	37.10%	13.79%	28	-1.540	.135	-.562
Math % Passing	44.41%	19.33%	47.87%	24.22%	28	-.432	.669	-.158

*Note.* Levene's test not significant and therefore equal variances assumed.

In addition to the independent samples  $t$ -tests, a series of Pearson  $r$  Correlations were performed. The purpose of these correlations was to examine the direction and strength of the relationship between teachers' cultural competence and student performance on the ELA and mathematics exam. For these analyses cultural competence was treated as a continuous variable using the raw score for each teacher. Similarly, the percentage of students passing the ELA and mathematics assessment was treated as continuous data as well. Presented in Tables 4- 9 are the results of the Pearson  $r$  Correlations for cultural competence by overall student performance in ELA and mathematics, cultural competence by Latino student performance in ELA and



mathematics, and cultural competence by Latino male student performance in ELA and mathematics. Overall ESSD was not significantly correlated with the percentage of students passing ELA ( $r = .036$ ) nor mathematics ( $r = .178$ ).  $R^2$  for ESSD by ELA% Pass was .00 and for ESSD by Math% Pass was .03 (see Table 4).

**Table 4**

*Results of Pearson  $r$  Correlation for Cultural Competence by Overall Student*

*Performance by ELA and Mathematics*

		ESSD Raw	ELA % Pass	Math % Pass
ESSD Raw Score	Pearson Correlation	1	.036	.178
	Sig. (2-tailed)		.850	.346
	N	30	30	30
	$R^2$		.00	.03
ELA % Passing	Pearson Correlation	.036	1	-.153
	Sig. (2-tailed)	.850		.418
	N	30	30	30
Math % Passing	Pearson Correlation	.178	-.153	1
	Sig. (2-tailed)	.346	.418	
	N	30	30	30

**Table 5**

*Descriptive Stats for ELA, Mathematics and ESSD for Overall Students*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
ELA % Passing	30	35.80%	2.33%	12.78 %
Math % Passing	30	45.03%	2.98%	16.34%
ESSD	30	62.23	1.40	7.66

*Note.* Overall ESSD was not significantly correlated with the percentage of Latino students passing ELA ( $r = -.037$ ) nor mathematics ( $r = .103$ ).  $R^2$  for ESSD by ELA% Pass was .00 and for ESSD by Math% Pass was .01 (see Table 6).

**Table 6*****Results of Pearson r Correlation for Cultural Competence by Latino Students******Performance by ELA and Mathematics***

		ESSD Raw	ELA % Pass	Math % Pass
ESSD Raw Score	Pearson Correlation	1	-.037	.103
	Sig. (2-tailed)		.847	.588
	N	30	30	30
	R <sup>2</sup>		.00	.01
ELA % Passing	Pearson Correlation	-.037	1	.249
	Sig. (2-tailed)	.847		.184
	N	30	30	30
	Pearson Correlation	.103	.249	1
Math % Passing	Sig. (2-tailed)	.588	.184	
	N	30	30	30

**Table 7*****Descriptive Statistics for ELA, Mathematics & ESSD for Latino Students***

	N	M	SD	SEM
ELA % Passing	30	33.68%	2.34%	12.83 %
Math % Passing	30	45.63%	3.35%	18.37%
ESSD	30	62.23	1.40	7.66

*Note.* Overall ESSD was not significantly correlated with the percentage of Latino male students passing ELA ( $r = -.269$ ) nor mathematics ( $r = .053$ ). R<sup>2</sup> for ESSD by ELA% Pass was .07 and for ESSD by Math% Pass was .00 (see Table 8).

**Table 8*****Results of Pearson r Correlation for Cultural Competence by Latino Male Student******Performance by ELA and Mathematics***

		ESSD Raw	ELA % Pass	Math % Pass
ESSD Raw Score	Pearson Correlation	1	-.269	.053

	Sig. (2-tailed)		.151	.782
	N	30	30	30
	R <sup>2</sup>		.07	.00
ELA % Passing	Pearson Correlation	-.269	1	-.016
	Sig. (2-tailed)	.151		.932
	N	30	30	30
Math % Passing	Pearson Correlation	.053	-.016	1
	Sig. (2-tailed)	.782	.932	
	N	30	30	30

**Table 9***Descriptive Statistics for ELA, Mathematics & ESSD for Latino Male*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
ELA % Passing	30	33.42%	2.44	13.40
Math % Passing	30	46.14%	3.94	21.60
ESSD	30	62.23	1.40	7.66

**Analysis by Instruction Subscale for ESSD**

By examining the culturally responsive instruction subscale of the ESSD separately, it was possible to analyze the relationships between each subconstruct and other variables in greater detail. Analyzing instructional subscale scores was a way to gain a deeper understanding of teaching practices and their relationship to learning outcomes, and to identify specific strategies or techniques that can be targeted for improvement in the classroom. This was particularly helpful for the fine-grained testing of hypotheses about individual aspects of a broader construct. In sum, analyzing subscale scores provided a more in-depth and nuanced understanding of the data, and led to more focused recommendations for future research or better educational practices.

Examination of the Levene's test ( $F = .515$ ;  $p = .48$ ) indicated that the assumption of homogeneity was met and therefore equal variances were assumed. Further

examination of Table 10 revealed that there was no significant difference in student performance in ELA ( $p = .599$ ) nor mathematics ( $p = .465$ ) by cultural competence level subscale Instruction. More specifically, while there were no significant differences found it should be noted that teachers with higher ESSD scores had a lower mean percentage of students passing ELA ( $M = 34.63$ ,  $SD = 11.37$ ) compared to teachers with lower ( $M = 37.14$ ,  $SD = 14.54$ ); however, for mathematics the opposite was true. Teachers who had higher ESSD had a higher mean percentage of students passing ( $M = 50.31$ ,  $SD = 15.62$ ) compared to those with lower ( $M = 45.43$ ,  $SD = 20.44$ ). Thus, based on the results of the independent sample  $t$ -test there is insufficient evidence to reject the null hypothesis.

**Table 10**

***Results of Independent Samples  $t$ -Test for Cultural Competence Subscale by All Students' ELA and Mathematics\****

	High		Low		$df$	$t$	$p$
	$M$	$SD$	$M$	$SD$			
ELA % Passing	34.63%	11.37%	37.01%	14.45%	28	.532	.599
Math % Passing	50.31%	15.62%	45.43%	20.44%	28	-.741	.465

*Note.* Levene's test not significant and therefore equal variances assumed.

To answer research question two an independent samples  $t$ -test was performed. For the purpose of this study, the independent variable was cultural competence and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was Latino student performance on SBA in mathematics and ELA. Both academic variables were treated as continuous or interval data. Table 11 provides an overview of the descriptive statistics for the dependent variables (i.e., Latino student performance on the SBA in

mathematics and ELA) across the independent variable (i.e., cultural competence. Examination of the Levene's test ( $F = .510$ ;  $p = .48$ ) indicated that the assumption of homogeneity was met and therefore equal variances were assumed. Further examination revealed that there was no significant difference in student performance in ELA ( $p = .403$ ) nor mathematics ( $p = .496$ ) by cultural competence level. More specifically, while there were no significant differences found it should be noted that teachers with higher ESSD had lower means percentage of students passing ELA means ( $M = 35.81$ ,  $SD = 14.46$ ) compared to teachers with high ESSD ( $M = 31.80$ ,  $SD = 11.36$ ); however those with higher ESSD had higher percentages passing mathematics ( $M = 47.82$ ,  $SD = 15.23$ ) to low ESSD ( $M = 43.14$ ,  $SD = 21.73$ ). Thus, based on the results of the independent sample  $t$ -test there is insufficient evidence to reject the null hypothesis.

**Table 11**

***Results of Independent Samples  $t$ -Test for Cultural Competence Subscale by Latino Students' ELA and Mathematics\****

	High		Low		$df$	$t$	$p$
	$M$	$SD$	$M$	$SD$			
ELA % Passing	31.80%	11.36%	35.81%	14.46%	28	.849	.403
Math % Passing	47.82%	15.23%	43.14%	21.73%	28	-.690	.496

*Note.* Levene's test was not significant and therefore equal variances assumed.

To answer research question three an independent samples  $t$ -test was performed. For this study, the independent variable was the instruction subscale of the ESSD and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was

Latino male student performance on SBA is mathematics and ELA. Both academic variables were treated as continuous or interval data. Table 12 provides an overview of the descriptive statistics for the dependent variables (i.e., Latino male student performance on the SBA in mathematics and ELA across the independent variable (i.e., cultural competence). Examination of the Levene's test ( $F = .293$ ;  $p = .59$ ) indicated that the assumption of homogeneity was met and therefore equal variances were assumed. Further examination revealed that there was no significant difference in student performance in ELA ( $p = .214$ ) nor mathematics ( $p = .470$ ) by cultural competence level. More specifically, while there were no significant differences found it should be noted that teachers with higher ESSD Instruction had lower means percentage of students passing ELA means ( $M = 30.55$   $SD = 12.31$ ) compared to teachers with low ESSD ( $M = 36.71$   $SD = 14.25$ ). However, teachers with higher ESSD Instruction had higher means for mathematics ( $M = 48.86$ ,  $SD = 18.04$ ) compared to low ESSD ( $M = 43.03$ ,  $SD = 25.43$ ). Thus, based on the results of the independent sample  $t$ -test there is insufficient evidence to reject the null hypothesis.

**Table 12**

***Results of Independent Samples  $t$ -Test for Cultural Competence Subscale by Latino Male Students' ELA and Mathematics\****

	High		Low		$t$	$p$	
	$M$	$SD$	$M$	$SD$			$df$
ELA % Passing	30.55%	12.31%	36.71%	14.25%	28	.1273	.214
Math % Passing	48.86%	18.04%	43.03%	25.42%	28	-.732	.470

*Note.* Levene's test was not significant and therefore equal variances assumed.

In addition to the independent samples *t*-test a series of Pearson *r* Correlations were performed. The purpose of these correlations was to examine the direction and strength of the relationship between teachers' cultural competence (cultural competence) Instruction subscale and student performance on the ELA and mathematics examine. For these analyses cultural competence Instruction subscale was treated as a continuous variable using the raw score for each teacher. Similarly, the percentage of students passing the ELA and mathematics assessment was treated as continuous data as well. Presented in Tables 13-18 are the results of the Pearson *r* Correlations for cultural competence by overall student performance in ELA and mathematics, cultural competence by Latino student performance in ELA and mathematics, and cultural competence by Latino male student performance in ELA and mathematics. Overall ESSD Instruction subscale was not significantly correlated with the percentage of students passing ELA ( $r = -1.31$ ) nor mathematics ( $r = .107$ ).  $R^2$  for ESSD by ELA% Pass was .01 and for ESSD by Math% Pass was .01(see table 13).

**Table 13**

***Results of Pearson *r* Correlation for Cultural Competence by Overall Student***

***Performance by ELA and Mathematics***

		ESSD Raw	ELA % Pass	Math % Pass
ESSD Raw Score	Pearson Correlation	1	-.131	.107
	Sig. (2-tailed)		.491	.574
	N	30	30	30
	$R^2$		.01	.01
ELA % Passing	Pearson Correlation	-.131	1	.175
	Sig. (2-tailed)	.491		.355
	N	30	30	30
	Pearson Correlation	.107	.175	1
Math % Passing	Sig. (2-tailed)	.574	.355	
	N	30	30	30

**Table 14***Descriptive Statistics for ELA, Mathematics & ESSD for All Students*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
ELA % Passing	30	35.80%	2.33%	12.78 %
Math % Passing	30	45.03%	2.98%	16.34%
ESSD subscale	30	16.77	.59	3.22

Overall ESSD Instruction subscale was not significantly correlated with the percentage of Latino students passing ELA ( $r = -.154$ ) nor mathematics ( $r = .113$ ).  $R^2$  for ESSD by ELA% Pass was .02 and for ESSD by Math% Pass was .01 (see Table 15).

**Table 15***Results of Pearson *r* Correlation for Cultural Competence by Latino Students**Performance by ELA and Mathematics*

		ESSD Raw	ELA % Pass	Math % Pass
ESSD Raw Score	Pearson Correlation	1	-.154	.113
	Sig. (2-tailed)		.418	.553
	N	30	30	30
	$R^2$		.02	.01
ELA % Passing	Pearson Correlation	-.154	1	.249
	Sig. (2-tailed)	.418		.184
	N	30	30	30
	Pearson Correlation	.113	.249	1
Math % Passing	Sig. (2-tailed)	.553	.184	
	N	30	30	30

**Table 16***Descriptive Statistics for ELA, Mathematics & ESSD for Latino Students*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
ELA % Passing	30	33.68%	2.34%	12.83%



Math % Passing	30	45.65%	3.35%	18.37%
ESSD subscale	30	16.77	.59	3.22

Overall ESSD Instruction subscale was not significantly correlated with the percentage of Latino male students passing ELA ( $r = -.254$ ) nor mathematics ( $r = .129$ ).  $R^2$  for ESSD by ELA% Pass was .06 and for ESSD by Math% Pass was .01 (see Table 17).

**Table 17**

*Results of Pearson  $r$  Correlation for Cultural Competence by Latino Male Student*

*Performance by ELA and Mathematics*

		ESSD Raw	ELA % Pass	Math % Pass
ESSD Raw Score	Pearson Correlation	1	-.254	.129
	Sig. (2-tailed)		.176	.498
	N	30	30	30
	$R^2$		.06	.01
ELA % Passing	Pearson Correlation	-.254	1	-.016
	Sig. (2-tailed)	.176		.932
	N	30	30	30
	Pearson Correlation	.129	-.016	1
Math % Passing	Sig. (2-tailed)	.498	.932	
	N	30	30	30

**Table 18**

*Descriptive Statistics for ELA, Mathematics & ESSD for Male Latino Students*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
ELA % Passing	30	33.42%	2.44%	13.39 %
Math % Passing	30	46.14%	3.94%	21.60 %
ESSD subscale	30	16.77	.59	3.22

**Conclusion**

In conclusion, this study aimed to investigate the relationship between teachers' cultural competence and students' academic achievement. The findings of this study suggest that there is no statistically significant relationship between these two variables. While cultural competence is an important aspect of teaching, it may not be the only factor that influences students' academic achievement.

Despite the lack of statistical significance, it is still important for teachers to develop their cultural competence and create a culturally responsive teaching and learning environment. This can help to promote inclusivity and respect for diversity in the classroom, which can have a positive impact on students' overall well-being and sense of belonging. The implications of these results will be discussed in chapter five.

## Chapter 5: Summary and Discussion

This chapter presents a summary of the study and important conclusions drawn from the data presented in chapter four. It provides a discussion of CRT, implications on student achievement and findings related to the literature. It will include study limitations and implications for the education profession. The chapter concludes with recommendations for further research.

In recent years, researchers have discovered that educators in public schools have devalued the potential for academic success among culturally and linguistically diverse students, setting low expectations for them and viewing the cultural and linguistic differences as barriers rather than assets to learning (Hammond, 2015, Ladson-Billings, 1995, Safir & Dugan, 2021).

There has been a growing concern about the cultural barriers that can affect academic achievement for culturally and linguistically diverse culturally diverse students. Many educational researchers have found that teachers' beliefs, practices, and mindset can frequently be culturally biased and can thus negatively impact students both on an individual and a collective level. Culturally competent teachers must be aware of the potential impact of these ideas on students from diverse cultural backgrounds.

Latino/a students currently comprise the fastest growing student population in the United States (Arellanes, 2019; Chun, 2015; Gándara, 2009), but experience the lowest rates of academic achievement and school completion of all ethnic and racial groups. Racial inequities are pervasive in the American schooling system. According to Cheatham et al. (2020), racial inequities exist when two or more races are not standing on approximately equal footing. Furthermore, they espouse racial inequities are the

manifestation of a centuries long history of racist policies and practices which privileged Whites and excluded Indigenous and people of color.

As our world becomes increasingly diverse, it is becoming increasingly important for educators to have the knowledge and skills to work with students from diverse backgrounds. Asset-based pedagogies provide educators with a framework for acknowledging and working with diversity while also celebrating and affirming the strengths and assets of students from all backgrounds (Gay, 2000; Ladson-Billings, 1995).

When educators leverage asset-based pedagogies like CRT, culturally relevant pedagogy and culturally sustaining pedagogy they encourage a more inclusive, equitable, and culturally responsive approach to teaching and learning. By incorporating the assets and strengths of students into the learning process and recognizing the importance of their cultural backgrounds and identities, educators can support student motivation, engagement, and academic success.

### **Summary of Findings:**

Based on the statistical analysis performed via independent samples *t*-tests and a series of Pearson *r* Correlations found that there was no statistically significant difference in student's academic performance on the SBA based on their teachers' cultural competence level. The study examined the relationship between teachers' cultural competencies and student performance in a diverse classroom setting. The research involved collecting teacher survey data from a sample of teachers and secondary student data (2021-2022 SBA) and analyzing the data using statistical methods.

The results also showed that there was no significant difference or correlation between teachers' cultural competencies and students' academic performance. These findings suggest that while cultural competency is an important aspect of teaching, it may not have a direct impact on student performance. Further research is needed to explore other factors that may influence student performance in diverse classrooms.

To answer research questions one through three, independent samples *t*-test were performed.

1. Is there a significant difference in the academic achievement of students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?
2. Is there a significant difference in the academic achievement of Latino students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?
3. Is there a significant difference in the academic achievement of Latino male students on the SBA, in mathematics and ELA, between teachers categorized as high and low cultural competence?

For this study, the independent variable was cultural competence and was treated as a dichotomous variable (i.e., low vs. high). The dependent variable was student performance on SBA in ELA and mathematics. Both academic variables were treated as continuous or interval data. Based on the results of all the independent sample *t*-tests and examination of the data revealed that there was no significant difference in student performance. There was insufficient evidence to reject the null hypothesis.

Additionally, for questions four-six a series of Pearson r Correlations were performed.

4. Is there a significant relationship between in the academic achievement of students on the SBA, in mathematics and ELA, and teachers' cultural competence?

5. Is there here a significant relationship between Latino students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

6. Is there here a significant relationship between Latino male students' academic achievement on the SBA, in mathematics and ELA, and teachers' cultural competence?

After examination of the data, it revealed that there was no significant difference in student performance based on teachers' cultural competence and failed to reject the null hypothesis.

### **Discussion:**

This section will focus on and discuss the finding that there was no significant difference in student performance based on teachers' level of cultural competencies, whether high or low for all students, Latino students, and Latino male students. The study aimed to investigate the relationship between teachers' cultural competencies and student performance in a diverse classroom setting. The research involved collecting data from a sample of teachers and students and analyzing the data using statistical methods. The results showed that there was no significant correlation between teachers' level of cultural competencies and student performance on the SBA in Math and ELA.

In this segment, I delve into the critical aspects of CRT and teachers' cultural competence. The study has provided valuable insights into how educators' awareness of cultural diversity and their ability to adapt teaching practices accordingly can significantly influence the academic achievement of students from culturally and linguistically diverse backgrounds. Teachers who have undergone training in cultural competence exhibit a higher degree of effectiveness in creating inclusive classroom environments. These teachers are better equipped to understand and appreciate the cultural backgrounds of their students, tailor their instructional strategies to meet individual needs, and establish a more supportive and respectful learning atmosphere. The findings align with existing literature on the subject, reinforcing the importance of CRT as a means to bridge achievement gaps and promote equitable education. However, the nuanced interplay between teachers' cultural competence and students' academic outcomes warrants further exploration, as it may vary across different contexts and populations.

The implications of the research extend beyond the realm of educators and into the lives of students. By recognizing the crucial role of CRT and teachers' cultural competence, we open the door to a multitude of opportunities for enhancing students' academic achievement. The study underscores the potential for targeted professional development programs to empower teachers with the necessary skills to engage with students from diverse cultural backgrounds effectively. This, in turn, can lead to improved academic performance, reduced dropout rates, and increased overall student well-being. The findings also underscore the importance of fostering a culturally inclusive curriculum that respects and incorporates the diverse perspectives and

experiences of students. Our work calls for a holistic approach to education that prioritizes both the cultivation of teachers' cultural competence and the creation of culturally responsive learning environments to maximize the positive impact on students' academic achievement and future success.

Additionally, the researcher analyzed the scores from the Culturally Responsive Instruction subscale of the ESSD to potentially provide valuable insight into the relationship between culturally responsive instruction and student performance. The Culturally Responsive Instruction subscale spoke directly to the instructional part of the ESSD. However, after running the statistical analyses there still wasn't a statistically significant relationship between the Culturally Responsive Instruction subscale and student performance for all students, Latino students, and Latino male students. This subscale is specifically designed to measure the extent to which teachers are implementing culturally responsive practices in their instruction, which may be a key factor in promoting positive academic outcomes for culturally diverse students. Furthermore, the results showed that there was no significant correlation between teachers' level of cultural competencies and student performance on the SBA in Math and ELA using the Culturally Responsive Instruction subscale scores. By analyzing the relationships between scores on this subscale and measures of student performance, the researcher could potentially identify specific instructional practices that are particularly effective for diverse student populations.

While this study did not find a statistically significant relationship between teachers' cultural competence and students' academic achievement, it highlights the importance of creating a culturally responsive learning environment for all students. The



findings of this study suggest that culturally responsive teaching is an essential component of effective education. Through a thorough review of the literature, it is clear that CRT can help to improve academic outcomes, promote social justice, and support the well-being of students. However, it is important to note that effective implementation of CRT requires a deep understanding of students' cultural backgrounds and experiences, as well as a willingness to adapt one's teaching methods to meet their needs.

While it is commonly assumed that a teacher's cultural competence is an important factor in the academic achievement of culturally diverse students, the research on this topic has been somewhat mixed. However, recent studies have shown that the relationship between teacher's cultural competence and student achievement is not as clear cut as previously thought, and often other factors have a more significant effect on student achievement.

One possible explanation for the non-significant results could be that CRT is more than just knowledge of different cultures or cultural practices. Teachers who are successful in creating culturally responsive classrooms are not only knowledgeable about different cultures but also have a strong understanding of the impact of culture on learning and have the ability to apply this knowledge to create inclusive classroom practices that disrupt cultural biases..

CRT practices can be effective in promoting positive academic outcomes and reducing disparities in achievement. This has been demonstrated in a number of studies over the years, including research conducted by Ladson-Billings (1995), Gay (2000), Villegas & Lucas (2002), and many others. According to these researchers, some key elements of effective CRT include seeing students as individuals with their own unique

cultural backgrounds, providing opportunities for students to develop their cultural identities, and drawing upon students' cultural backgrounds as a resource for learning.

Thirty out of thirty-nine teachers responded to the ESSD survey, which is very close to having a small sample size. This may be a reason the results were found not statistically significant. Having a small sample size in a causal comparative research and correlational study can have several implications. A small sample size can reduce the statistical power of the study, making it more difficult to detect significant differences between groups (Type II errors). This can lead to inaccurate or inconclusive findings, as the results may not be representative of the larger population. Additionally, having a sample size of 30 out of 39 teachers in a causal comparative study that exceeds the typically recommended ideal size can be seen as advantageous in some ways. It may enhance the study's statistical power, making it more likely to detect significant differences or relationships if they exist. A larger sample can also provide greater generalizability to the population, potentially increasing the study's external validity.

Furthermore, a small sample size can increase the risk of sampling bias, where the study participants may not be representative of the larger population, leading to inaccurate results. This can also lead to difficulties in generalizing the findings to a larger population. A small sample size can increase the risk of confounding variables, which are variables that may affect the outcome of the study but are not being measured or controlled for. This can lead to inaccurate or misleading conclusions about the relationship between teachers' level of cultural competence and student achievement.

Overall, a small sample size can limit the reliability and validity of a causal comparative research study, making it more difficult to draw meaningful conclusions

about the relationship between teachers' level of cultural competence and student achievement. Using the Qualtrics<sup>sm</sup> online calculator with a confidence Level of 95%, population size of 39 teachers, a confidence interval of .5 (margin of error) the ideal sample size for this study would be 29. According to Fraenkel and Wallen (2009), the minimum acceptable sample size for correlational study is no less than 30. They also added that if the data which is obtained from a sample is smaller than 30, it may give inaccurate result of the degree of correlation. Therefore, a sample larger than 30 will give meaningful results. It is important to ensure that the sample size is large enough to provide sufficient statistical power and reduce the risk of sampling bias, confounding variables and Type II error. Though a larger sample size will result in higher precision in estimates, it may not be desirable in terms of cost, time and effort.

A Type II error in this context occurs when the researcher fails to reject the null hypothesis that there is no causal relationship between the variable (e.g., teacher competence) and student achievement, when in fact there is a true causal relationship. In other words, the researcher concludes that there is no effect of the variable on student achievement, when in fact there is one.

Moreover, factors such as high-quality instruction, supportive teacher-student relationships, and a sense of belonging can significantly impact students' academic performance regardless of their cultural background. Therefore, while cultural competence is an essential aspect of culturally responsive teaching, it may not be the most crucial factor in ensuring academic success for all students. Other factors such as teaching style, preexisting student groups and the makeup of the groups, classroom management, and student engagement may also play a role in student achievement vs. a

teacher's cultural competence. The class placement of students can significantly impact a teacher's performance. When classes are homogenous, with students performing at similar academic levels and coming from similar backgrounds, teachers may find it easier to plan curriculum, create lesson plans, and teach the material. On the other hand, when faced with a heterogeneous group comprising students with varying learning preferences, skills, and cultural backgrounds, teachers must develop more creative approaches for engaging and reaching students.

Placing students according to ability levels can also impact the dynamics of a classroom, as there will be groups of students at different levels. Teachers must create an environment where students feel safe and supported regardless of their placement, so no student feels left behind, and everyone has the same chance to succeed. Balancing the disposition of students to ensure diversity and healthy development of classroom relationships must remain a priority.

In a classroom with mixed abilities, teachers may need to use different teaching strategies to facilitate student learning. Alternate activities and assignments are necessary to cater to the sub-groups of students and keep them challenged and appropriately engaged. At the same time, teachers must find ways to ensure no student feels overwhelmed or bored. Teachers must not only be skilled in their subject matter but also be adept at tailoring their approach to meet the unique needs of their students. They must create a safe learning environment that accommodates different perspectives, experiences, learning styles, and cultural backgrounds. When teachers succeed in this task, they can provide an immersive learning experience that excites and engages students while helping them overcome barriers to academic success.

This segment explored the intricate relationship between CRT, teachers' cultural competence, standardized assessments, and their collective influence on students' academic achievement. When teachers can identify potential biases within these assessments and make informed decisions about how to accommodate the diverse needs of their students. Additionally, CRT practices enhance students' test-taking confidence and motivation, positively impacting their performance on standardized tests. Research highlights that when teachers employ strategies that align with culturally responsive pedagogy, students from various cultural backgrounds tend to perform closer to their full potential on these assessments, narrowing achievement gaps and fostering equitable educational outcomes

The discussion also emphasized the need for further research to explore the complex relationship between cultural competency and student performance, and to identify other factors that may impact student success in diverse classrooms. Overall, the findings suggest that while cultural competency is an important aspect of teaching, it may not have a direct impact on student performance on standardized assessments.

The findings carry significant implications for both standardized assessment practices and the academic achievement of students. As we consider the critical role of standardized assessments in education, we recognize that educators and policymakers must take into account the cultural diversity within classrooms. By integrating CRT approaches and enhancing teachers' cultural competence, we can mitigate the potential biases and limitations of standardized assessments. This can lead to more accurate and equitable measures of student achievement. Furthermore, the research underscores the need for ongoing professional development and training initiatives that equip teachers

with the skills to navigate the intersection of CRT and standardized assessments effectively. Ultimately, the work contributes to a vision of education that not only values diverse cultural perspectives but also ensures that standardized assessments are fair and supportive tools that help all students reach their academic potential.

Historically, culturally diverse students have faced a number of obstacles when it comes to academic achievement on standardized assessments. These obstacles have included systemic barriers such as racism and bias, as well as cultural disconnect between the content of the assessments and the experiences of culturally diverse students.

One effective way to address these challenges is for teachers to deliver quality instruction. Quality instruction refers to a teaching approach in which meaningful, engaging activities and assignments are carefully aligned to state standards and designed to support students' intellectual growth and critical thinking skills. This approach recognizes the diversity of learners in the classroom and aims to meet their unique needs and strengths.

When students, especially culturally diverse students, are provided with quality instruction, they are more likely to achieve academically on standardized assessments for a number of reasons. For one, quality instruction actively engages students in the learning process, encouraging them to think critically, ask questions, and take ownership of their own learning. This kind of active engagement allows students to connect with the assessment content on a deeper level, resulting in greater retention of information and more meaningful learning.

Additionally, quality instruction is designed to be culturally responsive, incorporating the unique perspectives and experiences of the students into the curriculum. By leveraging the strengths and cultural knowledge of culturally diverse students, quality instruction helps to create a learning environment that is more inclusive and empowering, leading to greater engagement and academic achievement.

Quality instruction also supports culturally diverse students academically on standardized assessments by providing them with the tools and skills necessary for success. Through frequent formative assessments and targeted instruction, students are able to identify their areas of strength and weakness and receive targeted support and feedback to help them improve their performance. Quality instruction is a powerful tool for improving academic achievement for culturally diverse students on standardized assessments. By leveraging the unique strengths and cultural knowledge of students, providing opportunities for active engagement, and equipping students with the tools and skills necessary for success, quality instruction provides a solid foundation for academic achievement and long-term success for culturally diverse students.

One of the challenges in implementing CRT is ensuring that teachers have the knowledge and skills to do so effectively. This is where ongoing professional development plays a key role. Research has shown that targeted professional development can improve teachers' knowledge of CRT practices and their ability to implement these practices in their classrooms (Gay, 2010; Ladson-Billings & Tate IV, 1995).

In terms of creating inclusive learning environments, research has shown that this requires more than simply acknowledging diversity in the classroom. Rather, it requires

taking intentional steps to create a learning environment where all students feel valued and represented, regardless of their cultural background. This might involve creating a welcoming physical environment, highlighting and celebrating diverse cultural traditions, providing opportunities for student-led discussions of diversity, and integrating culturally relevant content across the curriculum.

Research suggests that teachers who incorporate CRT strategies into their classrooms can have a positive impact on student achievement. This approach and mindset involve adapting teaching methods and materials to reflect the cultural backgrounds and experiences of students.

Literature on the relationship between a teacher's cultural competence and student achievement on state standardized assessments is a complex and evolving field. The findings can vary based on numerous factors, including the specific context, the definition and measurement of cultural competence, and the demographic characteristics of the students and teachers involved.

Several studies have found a positive correlation between teacher cultural competence and student achievement. When teachers are culturally competent, they are better equipped to understand and address the diverse needs of their students, which can lead to improved academic outcomes.

The quality of teacher-student relationships is a crucial factor in student achievement. Culturally competent teachers may be better at establishing rapport and trust with students from diverse backgrounds, which can lead to increased engagement, attendance and motivation to succeed academically.



Teacher expectations can significantly influence student achievement. Culturally responsive and competent teachers are more likely to have high expectations for all students, regardless of their cultural background, which can lead to improved performance and sense of belonging in their classrooms.

Research has also highlighted the potential for cultural bias in standardized assessments. Culturally competent teachers may be more attuned to these biases and can help students navigate them, potentially mitigating the negative effects on student achievement.

The effectiveness of teacher training programs in enhancing cultural competence varies. Some research indicates that well-designed professional development programs can improve teacher cultural competence and, in turn, positively affect student achievement.

It's essential to recognize that the impact of a teacher's cultural competence on student achievement can vary widely depending on the specific context, including the cultural and socioeconomic diversity of the student population and the overall school climate. While some studies demonstrate short-term gains in student achievement resulting from culturally competent teaching, more research is needed to understand the long-term effects and sustainability of these gains. Additionally, the relationship between teacher cultural competence and student achievement is complex and multifaceted, making it challenging to draw definitive conclusions in all cases.

CRT has the potential to positively affect student attendance. When students feel a sense of belonging and connection to the school environment, they are more likely to attend regularly.

CRT practices can enhance student engagement and motivation. When teachers incorporate culturally relevant content and teaching methods that resonate with students' cultural backgrounds, it can lead to increased interest in learning and, consequently, better attendance. When students have strong, supportive relationships with their teachers, they are more likely to attend school regularly. Culturally competent teachers often excel in forming these connections with students from diverse backgrounds.

Studies have shown that CRT can help reduce attendance disparities among students from different racial, ethnic, and cultural backgrounds. By addressing cultural and systemic factors that may contribute to attendance challenges, it can promote equity in education

Finally, in terms of measuring the effectiveness of CRT practices, research suggests that a variety of data sources should be used. In addition to pre- and post-assessments of academic achievement, it is important to collect qualitative data such as student feedback and observations of classroom practices. This can enable teachers and administrators to assess the impact of their efforts to create a more culturally responsive learning environment and make adjustments as needed.

## **Implications**

The non-significant findings of the study have important implications for teachers, school administrators, and policymakers. Firstly, the results suggest that simply

increasing teachers' cultural competencies may not be enough to improve student achievement on standardized tests. While cultural competency is an important aspect of teaching, it may not be the only factor that influences student performance. Therefore, teachers and school administrators should consider other factors that may impact student success, such as teaching style, classroom management, and student engagement.

The research on CRT and student achievement has several implications for the education field. Some of the potential implications also impact teacher education programs and professional development opportunities. Teachers can be encouraged to engage in ongoing self-reflection and learning. CRT is an ongoing process that requires teachers to engage in ongoing self-reflection and learning. Teachers should be encouraged to reflect on their own biases and assumptions, and to seek out opportunities for learning and growth in this area.

Professional development programs would benefit from supporting ongoing learning and growth in CRT. Professional development can provide opportunities for teachers to continue to develop their skills and knowledge in CRT. This can include workshops, coaching, and other forms of support that help teachers to reflect on their practice and make continuous improvements.

Teacher education programs should prioritize the development of CRT skills. Teacher education programs can play a critical role in preparing future teachers to implement culturally responsive teaching practices. This can include providing coursework and field experiences that help teachers develop a deep understanding of their students' cultural backgrounds, as well as strategies for making connections between students' cultural backgrounds and curriculum content.

Teacher education programs should prioritize the recruitment and retention of diverse educators. Research has shown that having a diverse teaching force can help to support the academic achievement of students from historically marginalized groups. Teacher education programs can play a role in promoting the recruitment and retention of diverse educators, which can help to promote CRT practices and support student success.

Teacher education programs must provide opportunities for collaboration and community building. CRT requires collaboration and community building between teachers, students, and families. Teacher education programs can provide opportunities for future teachers to develop these skills, such as through collaborative projects and community engagement activities.

Additionally, the findings suggest that there may be a need for a more comprehensive approach to improving student achievement in diverse classrooms. This approach could involve a combination of strategies, including increasing teachers' cultural competencies, providing professional development opportunities, and implementing evidence-based teaching practices. Furthermore, school administrators and policymakers should consider the role of school culture and climate in promoting student success. Creating a positive and inclusive school environment that values diversity and promotes equity may also be important for improving student achievement.

In recent years, the recognition of the transformative potential of CRT professional development has gained momentum in the field of education. Such professional development programs are designed to equip educators with the knowledge, skills, and strategies necessary to create inclusive and culturally sensitive learning environments. The trainings not only enhance educators' awareness and understanding of

the diverse cultural backgrounds of their students but also provide them with the tools to adapt their instructional practices accordingly.

As teachers engage in culturally responsive professional development, they become more adept at tailoring their teaching methods to meet the unique needs and strengths of each student. This, in turn, fosters a sense of belonging and engagement among students from various cultural backgrounds. Moreover, research consistently demonstrates that teachers who have undergone CRT professional development are more likely to see positive academic outcomes among their students, including improved achievement, higher graduation rates, and increased cultural competence among the student body. Therefore, investing in CRT professional development not only enhances educators' effectiveness but also plays a pivotal role in promoting equity and fostering success in diverse classrooms.

This study highlights the need for further research to explore the complex relationship between cultural competency and student achievement. Future studies could investigate the impact of cultural competency on other measures of student success, such as academic engagement, social-emotional development, and college readiness. Additionally, research could explore the impact of cultural competency on student achievement in different contexts, such as urban versus rural schools or high-poverty versus low-poverty schools. By continuing to investigate the relationship between cultural competency and student achievement, researchers can provide valuable insights into effective teaching practices for diverse classrooms.

## Recommendations

1. Based on the research on CRT and student academic success, here are some potential recommendations for teachers and school leaders. Develop a deep understanding of your students' cultural backgrounds. In order to effectively implement CRT practices, teachers need to have a deep understanding of their students' cultural backgrounds. This includes understanding cultural values, beliefs, and practices that may impact student learning.
2. Make connections between students' cultural backgrounds and curriculum content. Teachers can make curriculum content more relevant and engaging for students by making connections between students' cultural backgrounds and the content being taught. For example, teachers can use examples, stories, and other materials that reflect the cultural backgrounds of their students.
3. Incorporate diverse perspectives and voices in curriculum and instruction. In addition to making connections between students' cultural backgrounds and curriculum content, teachers can also incorporate diverse perspectives and voices in their instruction. This can include using texts and resources that reflect a range of cultural backgrounds and perspectives.
4. Build strong relationships with students and families. Building strong relationships with students and families is a key component of CRT. Teachers can build trust and rapport with students and families by taking the time to understand their cultural backgrounds and by valuing their perspectives and experiences.

5. Provide opportunities for student voice and choice. Providing opportunities for student voice and choice can help to promote student engagement and motivation. Teachers can provide opportunities for students to share their perspectives and experiences and can also provide choices in how students demonstrate their learning.
6. Use assessment data to inform instruction. Teachers can use common formative assessment data to better understand the learning needs and strengths of their students and can use this information to inform their instruction. This can include adjusting instruction to better meet the needs of individual students, and providing targeted support to students who may be struggling.
7. Engage in ongoing professional development. CRT is a complex and ongoing process, and teachers and school leaders can benefit from ongoing professional development to support their understanding and implementation of these practices. Professional development can include workshops, coaching, and other forms of support.

When teachers adapt the culturally responsive approach to their teaching, they develop curricula that draw on and amplify various cultural experiences, leading to a curriculum that reflects the lived experience of the diverse student body. This involvement generates an exciting and relevant learning atmosphere positively impacting student attendance, particularly among students from underprivileged backgrounds who may feel disconnected from a class detached from their reality.

Culturally responsive teachers understand that experiences outside the classroom not only impact attendance but may beyond question impact how the students engage with the instructional subject. Projection of instruction and cultural sensitivity cultivates participation, involvement, and potentially full immersion in a potentially enriching learning experience. Interventions like this keep students on the academical track and potentially to achieving more than expected, thus improved attendance.

Moving forward, it is recommended that teachers receive training in CRT and that schools prioritize the adoption and integration of culturally responsive practices into their curricula. By doing so, we can ensure that all students have success to a high-quality education that celebrates their unique identities and empowers them to reach their full potential. The research highlighted the importance of cultural competency in teaching, but also acknowledged that it may not be the only factor that influences student performance.

### **Limitations**

The purpose of this study was to investigate the relationship between teachers' cultural competency and student achievement on a standardized test. The study aimed to explore whether teachers' cultural competency levels, as measured by a self-report survey (ESSD), were associated with differences in student performance on the SBA. However, the results of the study revealed that there was no significant difference or relationship between teachers' cultural competency and student achievement on the standardized test. Therefore, it can be concluded that teachers' cultural competency levels do not have a significant impact on student performance on standardized tests. While the results of this study suggest that cultural competency may not have been a significant factor in student



achievement on standardized tests, there are several limitations of the study that must be acknowledged.

Limitations to causal-comparative research are the researcher cannot manipulate the independent variables, cannot randomly assign the subjects to different groups, may not be able to provide a reasonable explanation for the relationship between the independent and dependent variables under study. This limited the ability to generalize as a whole and to the general population as the groups were preexisting and could not be changed.

Response bias was another limitation when conducting a survey. Response bias (also called survey bias) is the tendency of a person to answer questions on a survey untruthfully or misleadingly. For example, they may feel pressure to give answers that are socially acceptable. Participants may have figured out what the study was about and responded in specific ways. Additionally, participants may not have been honest in responding to specific questions as they may not have wanted to be seen as not being culturally competent. The respondent may not have been aware that they weren't answering the questions in the way the researcher intended. The format of the question or the nature of the previous questions may have had an unwanted impact on how a person responded to the survey (McDonald, 2008).

Self-reporting bias in surveys could have had a significant impact on the accuracy of the results. When people are asked to respond to survey questions about their own behaviors or attitudes, they may be influenced by a number of factors, such as social desirability bias or faulty memory. For example, respondents may give socially

acceptable responses, rather than accurate ones, in order to avoid appearing politically incorrect or unethical.

Additionally, people may have had different levels of self-awareness or be more or less willing to disclose certain information based on their personality or other factors. This could have led to skewed results, making it difficult to draw meaningful conclusions from the data. To minimize the impact of self-reporting bias, the researcher could have used randomized sampling methods, structured questions carefully, and considered complementing survey data with other sources of information, such as behavioral data or interviews (McDonald, 2008).

Like other methodologies, causal-comparative studies tend to be susceptible to some research bias, the most common type of research is subject-selection bias, so special care was taken to avoid the bias to not compromise the validity of the research study. Selection bias happens when the research criteria and study inclusion method automatically exclude some part of your population from the research process. When researchers choose research participants that exhibit similar characteristics, they are more likely to arrive at study outcomes that are uni-dimensional. Selection bias manifests itself in different ways in the context of research. Inclusion bias is particularly popular in quantitative research, and it happens when researchers select participants to represent their research population while ignoring groups that had alternative experiences. In this study the researcher selected the grade levels (3-5), ethnicity (Latino/a) and gender (males) of the study, they were not randomly selected. The researcher attempted to make the study representative by including 39 teacher across three grade levels and including all third -fifth grade students in the study from three different schools.

An additional limitation was that spring of 2022 was the first-time students took the SBA since the COVID -19 global pandemic school closure of 2020. Furthermore, the loss of subjects, not all 39 teachers responded to the survey and teachers may have had poor attitude of subject and/or the study. Testing threats are always a possibility like history, maturation, selection, mortality and interaction of selection and the experimental variable are all threats to the internal validity of this design. The SBA data was also one data point at the end of the 2022 school year. Although the SBA assessment was administered in the fall of 2021, students were given a shortened off grade level assessment. Meaning a fourth-grade student took a third-grade assessment. The fall 2021 SBA was a Computer Adaptive Test only; there was not a Performance Task. The Computer Adaptive Test was reduced in length by about 50%. Although the tests were shorter, the fall 2021 SBA used the Smarter Balanced item bank, and the items are a proportional representation of the full blueprint. The algorithm for selecting items from the pool on the Computer Adaptive Test is the same. All items used on the assessments were calibrated to the same performance expectations (i.e., Levels 1, 2, 3, 4 and a student's scale score). So, when a student's overall test score is calculated based on which items a student answers correctly during any given test, the process is the same regardless of how many items were used on the test. The information from the items a student answers correctly gets converted to the same reporting (scale score) metric regardless of the length of the test. The difficulty of the test did not change. Additionally, third grade students were not assessed so they would not have a fall score in the study. The researcher decided to only look at one point in time which was the 2022 spring SBA data.

Additionally, it's important to bear in mind that when interpreting the results of this type of casual comparative study, we should do so with caution. One common error is to mistakenly believe that, even if there is a relationship between the two variables being examined, it necessarily indicates that the first variable has directly influenced or is the predominant factor influencing the second variable..

An additional limitation in the study relied on self-reported data from teachers, which may not accurately reflect their actual cultural competency levels. Another limitation is that the study only examined one standardized test, which may not be representative of all assessments used to measure student achievement. Additionally, the study only focused on a single school district, and had a small sample size of thirty teachers who responded to the survey, which may limit the generalizability of the findings to other contexts.

Another limitation was having a small sample size of 30 teachers in the study. A small sample size can impact the statistical power of the study. Statistical power refers to the ability of a study to detect a significant difference between groups if such a difference exists. If the sample size is too small, the statistical power of the study may be low, which increases the risk of Type II errors (i.e., failing to reject the null hypothesis when it is actually, false).

Despite these limitations, this study provides important insights into the relationship between teachers' cultural competency and student achievement on standardized tests. While the findings suggest that cultural competency may not be a significant factor in student performance on these tests, it is important to continue exploring other factors that may impact student achievement. By identifying and

addressing these factors, educators can work towards improving student outcomes and closing achievement gaps. Therefore, future research should continue to examine the role of cultural competency in education and explore other potential factors that may impact student achievement.

Standardized assessments are commonly used to evaluate the academic achievement of students throughout the American education system. Educators use the results of these tests to inform teaching practices, make programmatic adjustments, and report on student achievement.

However, many standardized assessments are not sensitive to the cultural, linguistic, and social differences that exist among students from different cultural backgrounds. Culturally competent teachers are uniquely positioned to address these barriers and to provide more meaningful assessments to their students.

Cultural competence involves understanding and respecting the diverse backgrounds, experiences, and perspectives of students. Teachers who are culturally competent can work to remove any potential barriers that students may face when taking standardized assessments, such as difficulty understanding the questions, unfamiliar vocabulary, or cultural biases. Quality instruction also supports students of color academically on standardized assessments by providing them with the tools and skills necessary for success. Through frequent formative assessments and targeted instruction, students can identify their areas of strength and weakness and receive targeted support and feedback to help them improve their performance.

### **Further Research**

1. Future research should continue to explore the relationship between teacher's cultural competence and student achievement, but also consider other factors that may play a more significant role in creating equitable and culturally responsive learning environments. Educators can improve their responsiveness to students of different cultures by gaining a deep understanding of culture and applying strategies that address common cultural biases in education. Examining the effectiveness of different approaches to CRT. While there is evidence to suggest that CRT can improve academic achievement for historically marginalized students, there is still much to learn about which specific strategies and approaches are most effective in different contexts.

2. Exploring the role of teacher beliefs and attitudes in CRT. Research has shown that teacher beliefs and attitudes can play a significant role in the success of CRT practices. Further research could investigate how teacher beliefs and attitudes are shaped and how they impact student outcomes.

3. Investigating the impact of CRT on non-academic outcomes. While much of the research on culturally responsive teaching has focused on academic achievement, there is also potential to explore the impact of these practices on other outcomes such as student engagement, motivation, and social-emotional well-being.

4. Examining the role of school and district policies in supporting CRT. School and district policies can play a significant role in supporting or hindering the implementation of CRT practices. Future research could investigate how policies can be designed to better support these practices and how policy changes impact student outcomes.

5. Investigating the impact of CRT on students from different cultural backgrounds. While CRT is often discussed in the context of supporting students from historically marginalized groups, it is also important to understand how these practices impact students from a range of cultural backgrounds. Future research could investigate the effectiveness of CRT for students from different cultural and linguistic backgrounds.

It is important to note that this study has some limitations, including a small sample size and a specific context. Further research could explore the relationship between cultural competence and academic achievement in different contexts and with larger sample sizes. While there is growing interest in CRT, there is a lack of empirical evidence on its impact on student achievement. More research is needed to understand how CRT practices can improve academic outcomes for students from diverse cultural and linguistic backgrounds.

This study highlights the need for further research to explore the complex relationship between cultural competency and student achievement. Future studies could investigate the impact of cultural competency on other measures of student success, such as academic engagement, social-emotional development, and college readiness.

Additionally, research could explore the impact of cultural competency on student achievement in different contexts, such as urban versus rural schools or high-poverty versus low-poverty schools. By continuing to investigate the relationship between cultural competency and student achievement, researchers can provide valuable insights into effective teaching practices for diverse classrooms. There is limited focus on the experiences of students. Much of the literature on CRT focuses on the practices of teachers and educators.

There is limited attention to intersectionality. Many studies on CRT focus on a single cultural identity, such as race or ethnicity. There is a need for more research that examines how multiple identities, such as race, gender, and socioeconomic status, intersect and impact student achievement.

There is a lack of research on systemic implementation of CRT. While there is a growing body of literature on CRT, there is a need for more research on how to effectively implement these practices in the classroom. This includes understanding the challenges and barriers that teachers may face when trying to implement CRT strategies, as well as approaches for overcoming these challenges.

## **Conclusion**

In conclusion, the study did not reveal any significant difference or relationship between teachers' cultural competency levels and student achievement on a standardized test. The study aimed to investigate the impact of teachers' cultural competency on student achievement in a diverse classroom setting. The research involved collecting data from a sample of teachers and students and analyzing the data using statistical methods. The results showed that there was no significant correlation between teachers' cultural competency levels and student achievement on a standardized test.

The findings suggest that while cultural competency is an important aspect of teaching, it may not be the only factor that influences student achievement. Other factors such as teaching style, classroom management, and student engagement may also play a role. Therefore, teachers and school administrators should consider a more comprehensive approach to improving student achievement in diverse classrooms.



CRT helps to create a learning environment that is inclusive and welcoming for all students, regardless of their background or identity. It recognizes and values the diversity of students and their strengths, and it promotes a sense of belonging and engagement in the classroom.

When teachers use CRT strategies in combination with quality classroom instruction, it can have a positive impact on student achievement and success on standardized assessments. Quality instruction emphasizes the development of critical thinking skills, problem-solving, and application of knowledge through meaningful tasks and assignments.

By integrating CRT practices and quality instruction, students are more likely to feel empowered to engage with content, collaborate with peers, and connect their learning to their own lives and experiences. This can lead to deeper learning and greater retention of key concepts and skills, ultimately resulting in improved performance on assessments like the SBA .

Research supports students are more likely to achieve better academic outcomes when their teachers possess high levels of cultural competence. Teachers who are culturally competent are better able to connect with and motivate their students, resulting in improved academic performance. There are findings that suggest that cultural competence among teachers can reduce disparities in academic achievement between students from different ethnic or racial backgrounds. Finally, it is important to highlight the need for ongoing professional development and training for teachers to enhance their cultural competence and ultimately improve academic outcomes for all students.

Incorporating CRT is a multi-faceted effort that requires collaboration among educators, administrators, students, parents, and communities. While the implementation process may pose challenges, the potential benefits and positive impact on students' lives and society at large make it a worthy endeavor for the education field.

## References

- Acquah, E. O., Szelei, N., & Katz, H. T. (2020). Using modelling to make culturally responsive pedagogy explicit in preservice teacher education in Finland. *British Educational Research Journal*, 46(1), 122-139. <https://doi.org/10.1002/berj.3571>
- Almager, I. (2018). Teacher bias in the classroom: Utilizing personal experiences. *SoJo Journal: Educational Foundations and Social Justice Education*, 4(1), 17-29. <https://eric.ed.gov/?id=EJ1246387>
- Allport, G. W., Clark, K., & Pettigrew, T. (1954). *The nature of prejudice*. Addison-Wesley.
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. American Educational Research Association. <https://www.testingstandards.net/uploads/7/6/6/4/76643089/9780935302356.pdf>
- Arellanes, J. A., Viramontez Anguaino, R. P., & Lohman, B. J. (2019). Bettering the educational attainment for Latino families: How families view the education of their children. *Journal of Latinos and Education*, 18(4), 349-362. <https://doi.org/10.1080/15348431.2018.1426465>
- Banks, J. A. (1993a). Multicultural education: Historical development, dimensions, and

practice. *Review of research in education*, 19(1), 3-49.

<https://doi.org/10.3102/0091732X019001003>

Banks, J. A. (1993b). Multicultural education. *Phi Delta Kappan*, 75(1), 22-28.

<https://eric.ed.gov/?id=EJ470491>

Banks, J. A. (1995). *Multicultural Education: Its Effects on Students' Racial and Gender Role Attitudes*. <https://eric.ed.gov/?id=ED382729>

Banks, J. A. (2008). *An introduction to multicultural education* (5<sup>th</sup> ed.). Pearson.

<https://ucarecdn.com/d82827b2-9e39-40fe-a717-a1aca81ce4a9/>

Banks, J. A., & Banks, C. A. M. (Eds.). (2020). *Multicultural education: Issues and Perspectives* (10<sup>th</sup> ed.). John Wiley & Sons.

<https://doi.org/10.1080/14675986.2020.1766194>

Benner, M., Brown, C., & Jeffrey, A. (2019). *Elevating student voice in education*.

Center for American Progress.

<https://www.americanprogress.org/wp-content/uploads/2019/08/StudentVoice-report.pdf>

Blankstein, A. M., Noguera, P., & Kelly, L. (2016). *Excellence through equity: Five principles of courageous leadership to guide achievement for every student*. ASCD.

Breunig, M. (2016). Critical and social justice pedagogies in practice. *Encyclopaedia of educational philosophy and theory*, 258-263.

Brown v. Board of Education, 347 U.S. 483 (1954).

Callins, T. (2006). Culturally responsive literacy instruction. *Teaching Exceptional Children*, 39(2), 62-65. <https://doi.org/10.1177/004005990603900211>

Camacho-Thompson, D. E., Gillen-O'Neel, C., Gonzales, N. A., & Fuligni, A. J. (2016). Financial strain, major family life events, and parental academic involvement during adolescence. *Journal of Youth and Adolescence*, 45, 1065-1074.

<https://doi.org/10.1007/s10964-016-0443-0>

Cammarota, J. (2007). A social justice approach to achievement: Guiding Latina/o students toward educational attainment with a challenging, socially relevant curriculum. *Equity & Excellence in Education*, 40(1), 87-96.

<https://doi.org/10.1080/10665680601015153>

Caraballo, L. (2017). Students' critical meta-awareness in a figured world of achievement: Toward a culturally sustaining stance in curriculum, pedagogy, and research. *Urban Education*, 52(5), 585-609.

<https://doi.org/10.1177/0042085915623344>

Casanova, C. R., & Cammarota, J. (2019). "You trying to make me feel stupid or something?": Countering dehumanization of Latin@ youth through a liberating pedagogy of praxis. *Journal of Latinos and Education*, 18(4), 363-375.

<https://doi.org/10.1080/15348431.2018.1426466>

- Cheatham, J. P., Baker-Jones, T., Jordan-Thomas, E. (2020, November 13). Note on racial equity in school systems. *Public education leadership project at Harvard University*. <https://pelp.fas.harvard.edu/files/pelp/files/pel096p2.pdf>
- Chu, S. Y. (2014). Perspectives of teachers and parents of Chinese American students with disabilities about their home–school communication. *Preventing School Failure: Alternative Education for Children and Youth*, 58(4), 237-248. <https://doi.org/10.1080/1045988X.2013.809685>
- Cobb, F., & Krownapple, J. (2019). *Belonging through a culture of dignity: The keys to successful equity implementation*. Mimi & Todd Press.
- Colgren, C., & Sappington, N. E. (2015). Closing the achievement gap means transformation. *Education Leadership Review of Doctoral Research*, 2(1), 24-33. <https://eric.ed.gov/?id=EJ1105741>
- Collardo, W., Hollie, S., Isiah, R., Jackson, Y., Muhammad, A., Reeves, D., Williams, K. (2021). *Beyond conversations about race: A guide to discussions with Students, teachers, and communities*. Solution Tree Press.
- De Guzman, M. R. T., Durden, T. R., Taylor, S. A., Guzman, J. M., & Potthoff, K. L. (2016). *Cultural competence: An important skill set for the 21st century*. <https://extensionpublications.unl.edu/assets/html/g1375/build/g1375.htm>
- Delpit, L. (2014). Culturally responsive teaching: Increasing involvement of minority

students and parents. *Journal of Teaching Effectiveness and Student Achievement*, 52(1).

DeMatthews, D. E., & Izquierdo, E. (2020). Supporting Mexican American immigrant students on the border: A case study of culturally responsive leadership in a dual language elementary school. *Urban Education*, 55(3), 362-393.

<https://doi.org/10.1177/0042085918756715>

Dickson, G. L., Chun, H., & Fernandez, I. T. (2016). The development and initial validation of the student measure of culturally responsive teaching. *Assessment for Effective Intervention*, 41(3), 141-154.

<https://doi.org/10.1177/1534508415604879>

Dotts, B. W. (2015). Education as instrument or as empowerment? Untangling White privilege in the politics of ethnic studies: The case of the Tucson Unified School District. *Multicultural Education*, 22, 35-38. <https://eric.ed.gov/?id=EJ1078831>

Dweck, C. (2016). What having a “growth mindset” actually means. *Harvard Business Review*, 13(2), 2-5. <https://leadlocal.global/wp-content/uploads/2016/12/Dweck-What-Having-a-%e2%80%9cGrowth-Mindset%e2%80%9d-Actually-Means-HBR.pdf>

Fitchett, P. G., Starker, T. V., & Salyers, B. (2012). Examining culturally responsive teaching self-efficacy in a preservice social studies education course. *Urban Education*, 47(3), 585-611. <https://doi.org/10.1177/0042085912436568>

Fraenkel, J.R., & Wallen, N.E. (2009). *How to design and evaluate research in education* (7th ed). New York. McGraw-Hill.

Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Herder & Herder.

Gallavan, N. P. (2005). Helping teachers unpack their "invisible knapsacks".

*Multicultural Education*, 13(1), 36. <https://eric.ed.gov/?id=EJ727806>

Gándara, P. (2009). *The Latino education crisis rescuing the American dream*.

<https://vtechworks.lib.vt.edu/bitstream/handle/10919/89164/LatinoCrisis.pdf?sequence=1&isAllowed=y>

Gay, G. (2000). *Culturally responsive teaching: Theory, research, and practice*.

Teachers' College Press.

Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher*

*Education*, 53(2), 106-116. <https://doi.org/10.1177/0022487102053002003>

Gay, G. (2010). Acting on beliefs in teacher education for cultural diversity. *Journal of*

*Teacher Education*, 61(1-2), 143-152. <https://doi.org/10.1177/0022487109347320>

Genao, S. (2016). Culturally responsive pedagogy: Reflections on mentoring by

educational leadership candidates. *Issues in Educational Research*, 26(3), 431-

445. <http://www.iier.org.au/iier26/genao.pdf>

Gibson, K., & Parks, M. W. (2014). Toward social justice: Literature to promote multiple

perspectives. *Multicultural Education*, 21(2), 41-

50. <https://files.eric.ed.gov/fulltext/EJ1045861.pdf>



Hammond, Z. (2015) *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students.*

Corwin.

Harris, S., Belser, C. T., Wheeler, N. J., & Dennison, A. (2021). A review of adverse childhood experiences as factors influential to biopsychosocial development for young males of color. *Professional Counselor, 11*(2), 188-202.

<https://doi.org/10.15241/sh.11.2.188>

Higbee, J. L., Schultz, J. L., & Goff, E. (2010). Pedagogy of inclusion: Integrated multicultural instructional design. *Journal of College Reading and Learning, 41*(1), 49-66. <https://doi.org/10.1080/10790195.2010.10850335>

Hinchey, Patricia H. (2008) *Becoming a critical educator.* Peter Lang Publishing.

Hollie, Sharroky (2011) *Culturally and linguistically responsive teaching and learning.*

Shell Education.

Hsiao, Y. (2015). The culturally responsive teacher preparedness scale: An exploratory study. *Contemporary Issues in Education Research, 8*(4), 241-250.

<http://dx.doi.org/10.19030/cier.v8i4.9432>

Hughes, S. A. (2008). Maggie and me: A Black professor and a white urban school teacher connect autoethnography to critical race pedagogy. *Educational Foundations, 22*, 73-95. <https://eric.ed.gov/?id=EJ857640>

Kelly, L. B., Wakefield, W., Caires-Hurley, J., Kganetso, L. W., Moses, L., & Baca, E.

(2021). What is culturally informed literacy instruction? A review of research in p-5 contexts. *Journal of Literacy Research*, 53(1), 75-99.

<https://doi.org/10.1177/1086296X20986602>

Kim, S., & Slapac, A. (2015). Culturally responsive, transformative pedagogy in the transnational era: Critical perspectives. *Educational Studies: Journal of the American Educational Studies Association*, 51(1), 17-27.

<https://doi.org/10.1080/00131946.2014.983639>

Kozleski, E. B., Sobel, D., & Taylor, S. V. (2003). Embracing and building culturally responsive practices. *Multiple Voices for Ethnically Diverse Exceptional Learners*, 6(1), 73-87. <https://doi.org/10.5555/MUVO.6.1.54558065122030Q7>

Ladson-Billings, G. (1992). Culturally relevant teaching: The key to making multicultural education work. *Research and Multicultural Education: From the Margins to the Mainstream*, 106-121. <https://doi.org/10.4324/9780203973257-15>

Ladson-Billings, G. (1994). *The Dream Keepers*. Jossey-Bass.

Ladson-Billings, G. (1995a). But that's just good teaching! The case for culturally relevant pedagogy. *Theory into Practice*, 34(3), 159-165.

<http://dx.doi.org/10.1080/00405849509543675>

Ladson-Billings, G. (1995b). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465-491.

<https://doi.org/10.3102/00028312032003465>

- Ladson-Billings, G., & Tate, W. F. (1995). Toward a critical race theory of education. *Teachers College Record*, 97(1), 47-68.  
<https://doi.org/10.1177/016146819509700104>
- Ladson-Billings, G. J. (1999). Preparing teachers for diverse student populations: A critical race theory perspective. *Review of Research in Education*, 24, 211-24  
<https://doi.org/10.2307/1167271>
- López, F. A. (2016). Culturally responsive pedagogies in Arizona and Latino students' achievement. *Teachers College Record*, 118(5), 1-42.  
<https://doi.org/10.1177/016146811611800503>
- Luna, N., Evans, W. P., & Davis, B. (2015). Indigenous Mexican culture, identity and academic aspirations: Results from a community-based curriculum project for Latina/Latino students. *Race Ethnicity and Education*, 18(3), 341-362.  
<https://doi.org/10.1080/13613324.2012.759922>
- Maxcy, B. D., & Nguyen, T. S. T. (2013). The case of Rivera Elementary School: The politics of collaboration. *Journal of Cases in Educational Leadership*, 16(3), 47-61. <https://doi.org/10.1177/1555458913498478>
- McDonald, J. D. (2008). Measuring personality constructs: The advantages and disadvantages of self-reports, informant reports and behavioural assessments. *Enquire*, 1(1), 75-94.

<https://www.nottingham.ac.uk/sociology/documents/enquire/volume-1-issue-1-dodorico-mcdonald.pdf>

McDonough, T. (2011). Initiation, not indoctrination: Confronting the grotesque in cultural education. *Educational Philosophy and Theory*, 43(7), 706-723.

<https://doi.org/10.1111/j.1469-5812.2009.00554.x>

McGee Banks, C. A., & Banks, J. A. (1995). Equity pedagogy: An essential component of multicultural education. *Theory into Practice*, 34(3), 152-158.

<https://doi.org/10.1080/00405849509543674>

McIntosh, M. L. (2019). Compound fractures: Healing the intersectionality of racism, classism and trauma in schools with a trauma-informed approach as part of a social justice framework. *Journal of Educational Leadership and Policy Studies*, 3(1), 1-14. <https://files.eric.ed.gov/fulltext/EJ1226938.pdf>

McLeod, S. (2007). Maslow's hierarchy of needs. *Simply Psychology*, 1(1-18).

<https://www.simplypsychology.org/maslow.html>

Mosley, M. (2010). "That really hit me hard": Moving beyond passive anti-racism to engage with critical race literacy pedagogy. *Race, Ethnicity and Education*, 13(4), 449-471. <https://doi.org/10.1080/13613324.2010.488902>

Muhammad, A. (2015) *Overcoming the achievement gap trap: Liberating mindsets to effect change*. Solution Tree Press.

Muhammad, A., & Hollie, S. (2011). *The will to lead, the skill to teach: Transforming*

*schools at every level*. Solution Tree Press.

Muhammad, G. (2020) *Cultivating genius: An equity framework for culturally and history responsive literacy*. Scholastic.

National Center for Education Statistics (2022). *Racial/ethnic enrollment in public schools*. <https://nces.ed.gov/>

National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform. *The Elementary School Journal*, 84(2), 113-130. <https://doi.org/10.1086/461348>

Noguera, P. (2008). Creating schools where race does not predict achievement: The role and significance of race in the racial achievement gap. *The Journal of Negro Education*, 77(2), 90–103. <http://www.jstor.org/stable/25608673>

Noguera, P. (2012, April 3). The achievement gap and the schools we need: Creating the conditions where race and class no longer predict student achievement. *In Motion Magazine*, 1–7.

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332. <https://doi.org/10.3102/00346543062003307>

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance,

terminology, and practice. *Educational Researcher*, 41(3), 93-97.

<https://doi.org/10.3102/0013189X12441244>

Paris, D., & Alim, H. S. (Eds.). (2017). *Culturally sustaining pedagogies: Teaching and learning for justice in a changing world*. Teachers College Press.

Parris, L., Neves, J. R., & La Salle, T. (2018). School climate perceptions of ethnically diverse students: Does school diversity matter?. *School Psychology International*, 39(6), 625-645. <https://doi.org/10.1177/0143034318798419>

Patel, R.A. (2017). *Measuring Cultural Competency in Educators: The Educators Scale of Student Diversity* [Unpublished doctoral dissertation]. Seattle Pacific University. [https://digitalcommons.spu.edu/soe\\_etd/32](https://digitalcommons.spu.edu/soe_etd/32)

Perry, T., Smith, K., and Zemelman, S. (2021). *Teaching for racial equity: Becoming interrupters*. Stenhouse Publishers.

Phinney, J. S. & Rotheram, M. J. (Eds.). (1987). *Children's ethnic socialization: Pluralism and development*. Beverly Hills: Sage Publications.

Quiroz, P. A. (2001). The silencing of Latino student “voice”: Puerto Rican and Mexican narratives in eighth grade and high school. *Anthropology & Education Quarterly*, 32(3), 326-349. <http://dx.doi.org/10.1525/aeq.2001.32.3.326>

Ramirez, P., Jimenez-Silva, M., Boozer, A., & Clark, B. (2016). Going against the grain

in an urban Arizona high school: Secondary preservice teachers emerging as culturally responsive educators. *Multicultural Perspectives*, 18(1), 20-28.

<https://doi.org/10.1080/15210960.2016.1127076>

Reece, L., & Nodine, P. (2014). When immigrant is synonymous with terrorist:

Culturally responsive teaching with English learners. *Social Studies*, 105(6), 259-

265. <https://doi.org/10.1080/00377996.2014.930400>

Safir, S., & Dugan, J. (2021). *Street data: A next-generation model for equity, pedagogy, and school transformation*. Corwin.

Sharan, Y. (2010). Cooperative learning: A diversified pedagogy for diverse classrooms.

*Intercultural Education*, 21(3), 195-203.

<https://doi.org/10.1080/14675981003760390>

Sheets, R. H. (1995). From remedial to gifted: Effects of culturally centered pedagogy.

*Theory into Practice*, 34(3), 186-193.

<https://doi.org/10.1080/00405849509543678>

Sleeter, C.E. (2001). Preparing teachers for culturally diverse schools. *Journal of Teacher*

*Education*, 52, 106 - 94. <https://doi.org/10.1177/0022487101052002002>

Sleeter, C. E. (2012). Confronting the marginalization of culturally responsive pedagogy.

*Urban Education*, 47(3), 562-584. <https://doi.org/10.1177/0042085911431472>

Smith, C. A. (2005). School factors that contribute to the underachievement of students

of color and what culturally competent school leaders can do. *Educational Leadership and Administration: Teaching and Program Development*, 17, 21-32.

<https://files.eric.ed.gov/fulltext/EJ795072.pdf>

Smarter Balanced. (2023, October 20). *Smarter balanced scoring specifications for summative and interim assessment*.

[https://technicalreports.smarterbalanced.org/scoring\\_specs/\\_book/scoringspecs.html](https://technicalreports.smarterbalanced.org/scoring_specs/_book/scoringspecs.html).

Spring, J. (2020). *American education*. Routledge.

Tan, G. (2001). "I want my teachers to like me": Multiculturalism and school dropout

rates among Mexican Americans. *Equity and Excellence in Education*, 34(2), 35-

42. <https://doi.org/10.1080/1066568010340206>

Tillman, L. C. (2004). (Un)intended consequences? The impact of the Brown v. Board of

Education decision on the employment status of Black educators. *Education and*

*Urban Society*, 36(3), 280-303. <https://doi.org/10.1177/0013124504264360>

Vaught, S. E., & Castagno, A. E. (2008). "I don't think I'm a racist": Critical Race

Theory, teacher attitudes, and structural racism. *Race, Ethnicity, and*

*Education*, 11(2), 95-113. <https://doi.org/10.1080/13613320802110217>

Villegas, A. M., & Lucas, T. (2002). Preparing culturally responsive teachers:

Rethinking the curriculum. *Journal of Teacher Education*, 53(1), 20-32.

<https://doi.org/10.1177/0022487102053001003>



- Wallace, T., & Brand, B. R. (2012). Using critical race theory to analyze science teachers culturally responsive practices. *Cultural Studies of Science Education*, 7(2), 341-374. <https://doi.org/10.1007/s11422-012-9380-8>
- Walter, J. S. (2018). Global perspectives: Making the shift from multiculturalism to culturally responsive teaching. *General Music Today*, 31(2), 24-28. <https://doi.org/10.1177/1048371317720262>
- Wozolek, B., & Atif, A. (2022). “A nice White lady”: Critical whiteness studies, teacher education, and city schools. *International Journal of Qualitative Studies in Education*, 35(7), 755-763. <https://doi.org/10.1080/09518398.2022.2061627>
- Wilkerson, I. (2020). *Caste: The origins of our discontent*. Random House.
- Wink, J. (2011) *Critical pedagogy: Notes from the real world*. Pearson.

## Appendix A

### Proposed Survey Questions from ESSD instrument:

#### Educators Scale on Student Diversity (ESSD)

Rate each of the following statements using the scale based on your agreement or disagreement with the statement.

1-	2-	3- Agree	4-
Strongly Disagree	Disagree		Strongly Agree

#	Statement	Desired Response	Construct
1	The primary religions of a district's families should have their holidays represented in the school calendar (e.g., 10-day break for Christmas, 3 day break for Eid, 2 day break for Diwali, etc.)	Agree	CA
2	"Non-standard" English is not appropriate in academic settings.	Disagree	CA
3	Students should see cultures similar to their own in the curriculum.	Agree	CRI

#	Statement	Desired Response	Construct
4	Native American students do not require differentiated instruction based on their cultural background.	Disagree	CRI
5	Teachers should include sociopolitical context in their curriculum and instruction.	Agree	CRI
6	Teachers should take students' cultural backgrounds into account when planning instruction.	Agree	CRI
7	The American educational system is designed to educate middle class students of European descent.	Agree	CRI
8	Teachers should help students from different cultures maintain positive attitudes about themselves.	Agree	CRI
9	Culturally diverse students are disciplined at an equal rate and manner as White students	Disagree	CRT

#	Statement	Desired Response	Construct
10	The traditional classroom has been set up to support a middle-class lifestyle.	Agree	CRT
11	Lower income families should be given financial assistance to live in wealthier neighborhoods in order for their children to attend better schools.	Agree	CRT
12	All teachers, including myself, have implicit bias that negatively affects their interactions with some students.	Agree	CRT
13	Schools should offer culturally diverse students opportunities that are not open for White students.	Agree	CRT
14	Society gives White people more privileges than people of color.	Agree	CRT
15	Racism pervades all aspects of society, including my educational workplace.	Agree	CRT

#	Statement	Desired Response	Construct
16	Diversity in a school benefits all students more than homogeneity of ethnicity.	Agree	ME
17	Teachers should be responsible for helping students develop positive attitudes towards different ethnic and cultural groups.	Agree	ME
18	The ethnicity of the teacher does not matter when educating students.	Disagree	ME
19	Schools in higher income neighborhoods should receive less funding and resources than those in lower income neighborhoods.	Agree	ME
20	Teachers need to make an effort to learn something about all the various cultures represented in their classroom	Agree	ME
21	All students benefit from a diverse staff and faculty.	Agree	ME
22	White students benefit from attending a school of diverse staff	Agree	ME

#	Statement	Desired Response	Construct
	and faculty more than from a school with a mostly White staff and faculty.		