

ABSTRACT

Professional Development Focused on Cultural Responsivity:
A Multiple Case Study Investigating the Impact on Teachers' Perception and Practice

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Although the cultural differences in K–12 classrooms increase yearly, most educators find themselves unprepared to meet the academic needs of this diverse population of students. A one size fits all approach to teaching has proven ineffective. In classrooms that are composed of students with a mixture of cultures, beliefs, values, gender, religions, and economic backgrounds, teachers often struggle to cultivate educational equity. Teachers have an influential academic impact on the students they teach, and they have the responsibility to align standards and curriculum to meet the needs of all students.

Guided by the theoretical framework of Brown-Jeffy and Copper (2011), this multiple case study explored the thinking and practice of five teachers who participated in professional development centered on culturally responsive teaching. Data generated was one questionnaire, a 45-minute interview, two 45-minute observations with each participant, and three brown bag luncheons. This data was then coded and analyzed for each of the five individual cases, followed by a cross-case analysis which produced three

emerging themes. This study's findings revealed an awareness of teachers' implicit bias, a change in teachers' practices due to incorporating cultural connections, and teachers' building positive relationships in the classroom.

This study's findings provided four implications for teachers, Hasborough School District, teacher education programs, and student impact. First, every teacher should participate in professional development focused on culturally responsive teaching to prepare for the increased diversity in 21st-century classrooms. The second implication is directed to Hasborough School District to conduct culturally responsive onboarding professional development throughout all schools and to ensure sustainability. The third implication focuses on teacher education programs. Teachers must be prepared to meet culturally diverse students' needs before entering the classroom. Classes focused on culturally responsive teaching should be mandatory in every teacher education program. The last implication focuses on student impact and achievement. The incongruence of students of color from White-dominated classroom content and state standards is evident in academic performance. Teachers must be taught to use students' culture to foster learning, experiences, perspectives, and connection to content in the classroom.

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Professional Development Focused on Cultural Responsivity:
A Multiple Case Study Investigating the Impact on Teachers' Perception and Practice

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been the hardest thing I have ever done this far. I thank everyone who prayed for me. I did not accomplish this alone.

DEDICATION

To Kingston, Kellen, and Knox

CHAPTER ONE

Introduction to the Problem of Practice

Introduction

In 1954, *Brown vs. Board of Education* overturned “separate but equal, but on the whole, equal access has not led to equal achievement” (Barton, 2004, p. 2). Since the decision of “separate but equal” 66 years ago, the “equal” portion of the decision has presented a real challenge. “Throughout the past 100 years, inequality has remained, with students of color consistently provided lower quality education in a system that purports to provide equal educational opportunities” (Brayboy et al., 2007, p. 165). Even with precedent set and abundant educational research on the topic, combatting cultural inequity and academic disparities between students of color and White students is still a significant issue in education.

With the increase in diversity in the present-day classroom population, students of color continue to struggle academically. Despite evidence supporting a rise in the number of students of color, which can be seen below in Figure 1.1, the education system built on Eurocentric ideology often does not validate students’ unique ideals, beliefs, and experiences. When students of color are not valued “on standard academic achievement measures, they continue to lag far behind their white counterparts” (Ladson-Billings, 2009, p. xv). Students must be able to bring their expertise to the classroom. Teachers are classroom leaders and should foster all voices to be heard and solicit all cultural voices. “Students of color enter the classroom, unaware of the “codes or rules of power” (Delpit, 2006, p. 52), and are often not allowed to use their funds of knowledge to make

connections within the curriculum and classroom. Suppose teachers continue to follow Eurocentric ideology and do not adopt culturally responsive thinking and practices. In that case, the disparity in academic achievement between students of color and their White peers will continue to widen.

Despite previous work to narrow the achievement gap, most curriculum and instructional practices have maintained hegemonic ideologies, marginalizing students of color. “Many teachers do not think about a cultural lens that influences their interpretations of their instructional practices” (Hammond, 2015, p. 59). Creating a culturally responsive classroom environment that fosters a mindset that all students can achieve should be a priority for educators (Ladson-Billings, 2009). Therefore, teacher education and in-service teacher professional development should focus on developing teachers’ abilities and commitment to engaging in culturally responsive and sustaining practices to provide equitable educational opportunities for all students.

Culturally responsive teaching is one way to engage today’s diverse student population and a potential solution for reducing the cultural gap and addressing the achievement gap. “Cultural responsiveness empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (Gloria Ladson-Billings, 2009, p. 20). Cultural responsiveness and meeting students’ individual needs can help facilitate student participation in authentic and meaningful learning experiences and increase academic success and achievement. This multiple case study explores the thinking and classroom practice of teachers who participated in professional development focused on culturally responsive teaching.

Statement of the Problem

While there is a steady increase in student cultural diversity in classrooms, there is a significant lack of teacher preparedness for teaching culturally diverse students (Castro, 2010; Ladson-Billings, 2009; Prater & Wilder & Dyches, 2008; Sleeter, 2001). Often, educators do not receive the necessary training to meet diverse students' individual needs and experiences. Furthermore, teachers lack training in "cultural synchronization and responsiveness, which inhibits student achievement" (Gloria Ladson-Billings, 2009, p. 19). Many pre-service and seasoned teachers lack the awareness, experience, knowledge, and understanding to effectively teach in successful, culturally diverse classrooms (Hammond, 2014; Delpit, 2006; Ladson-Billings, 1995). To cultivate a multicultural classroom, teachers whose life experiences mirror the dominant culture should learn about best practices in facilitating students with various backgrounds.

The issue that unfolds with an increasingly diverse student population and a predominantly white teaching force affects many aspects of teaching and learning. The mismatch between teaching and student demographics impacts teacher instruction, teacher-student relationships, student connection to the content, and students' engagement and achievement (Bonner et al., 2018; Griner & Stewart, 2013; Young, 2010). The long-term effects include limited amounts of "teachers of color to serve as role models for all students along with the limited potential of teachers of color to improve the academic outcomes and school experiences of students of color" (Villegas & Irvine, 2010, p. 176). The continuing absence of professional training and a shortage of a diversified teaching force will have lasting effects on public education.

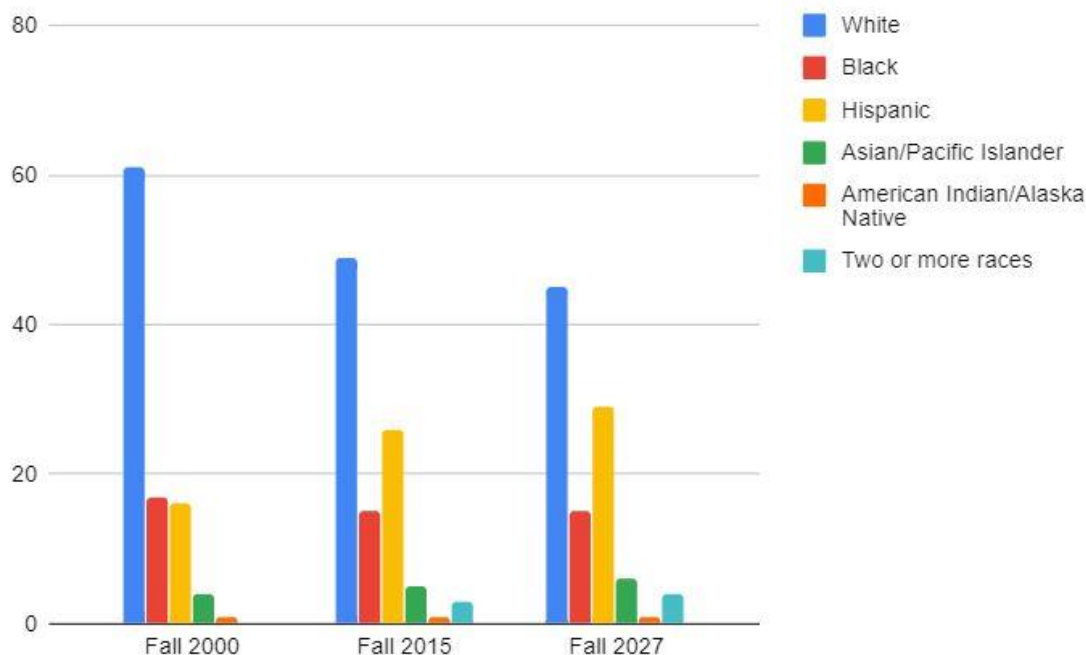


Figure 1.1. Percentage of distribution of national public schools enrolled in pre-kindergarten through 12th grade by race/ethnicity: Fall 2000, Fall 2015, and Fall 2027.

Note: In 2000, data on students of two or more races were not collected. This figure shows the projected numbers between 2000 and 2015, the percentage of White and Black students decreased, but Hispanic students increased by ten percentage points. From the fall of 2015 and the fall of 2027, the percentage of White students in public schools is projected to continue to decrease. (*Common Core of Data*, 2015). Data collected from the US Department of Education, National Center for Education Statistics (*Common Core of Data*, 2015), “State Nonfiscal Survey of Public Elementary and Secondary Education,” 2000–01 and 2015–16; and National Elementary and Secondary Enrollment Projection Model, 1972 through 2027.

Data from the National Center for Education Statistics pre-kindergarten through 12th-grade school demographics illustrate a decrease in the White population and an increase in students of color. Hasborough Middle School demographics mirror this paradigm and are becoming increasingly diverse which can be seen in Figure 1.2.

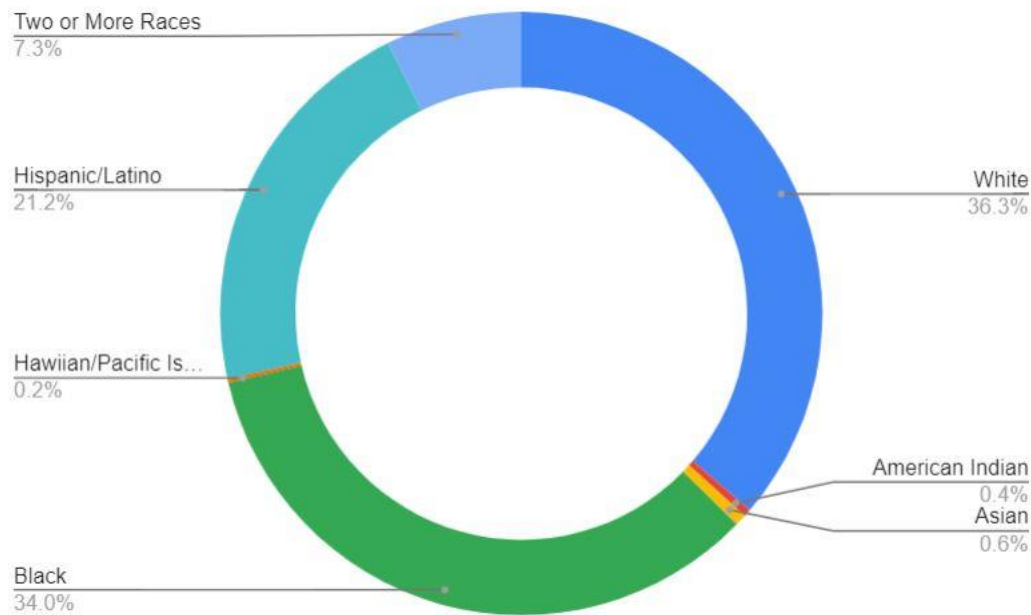


Figure 1.2. 2018–2019 Race/Ethnicity Demographics.

Note: Data collected from the Arkansas Department of Education (*Ade My School Info*, 2018.).

A shift away from instructional practices aligned primarily with White middle-class culture is imperative to meet the needs of diverse learners and work to close the racial and academic achievement gap. Teacher reflection and professional development centered on culturally responsive practices are essential for teachers to effectively instruct students who do not have similar experiences and beliefs as their own. Participation in purposeful, culturally proficient professional development is one-way educators can gain essential skills, knowledge, and dispositions needed to engage in culturally responsive practices that address inequalities and stereotypes. Evidence suggests that culturally responsive teaching is one solution to the underachievement of students of color and may improve student academic achievement (Gay, 2018; Griner & Stewart, 2013; Hammond, 2014; Ladson-Billings, 2009; McKinley, 2010).

Purpose of the Study

Often, pre-service and in-service teachers are not fully prepared to teach to the increasing diversity in classrooms. Teacher education programs may infuse a few courses to help pre-service teachers develop skills for working with diverse students. Still, there is often not a systematic focus on issues of diversity in teacher education programs (Sleeter, 2001). To attend to the lack of preparation in culturally relevant pedagogy that pre-service and teachers receive, intentional professional development about culturally relevant pedagogy in reoccurring cycles may help better prepare teachers for their present and future classroom diversity (Villegas & Lucas, 2002). Teachers are a critical part of student achievement, and their development of skills for working with diverse student populations is essential to students of color success. Ongoing professional development on cultural responsiveness is a potential solution to help lessen the achievement gap. This case study aimed to explore the influence of purposefully designed professional development focused on cultural responsivity on teachers' thinking and professional practice at Hasborough Middle School. This study seeks to answer the central research question: How does participation in professional development on culturally responsive teaching influence teacher thinking and practice?

Theoretical Framework

The theoretical framework that informed this research study was the culturally relevant pedagogy framework. Culturally relevant pedagogy “is a pedagogy that empowers students intellectually, emotionally, socially, and politically by using cultural referents to impart knowledge, skills, and attitudes” (Ladson-Billings, 1994, p.17-18). Specifically, this study utilizes Brown-Jeffy and Cooper’s (2011) five principles of

culturally relevant pedagogy. Brown-Jeffy and Coopers' five principles of culturally relevant pedagogy (2011) are informed by Ladson-Billings, Gay, and Nieto's concepts and principles of culturally relevant teaching and culturally responsive pedagogy while incorporating elements of Critical Race Theory into the framework. The five principles of culturally relevant pedagogy, seen in Figure 1.3, include identity and achievement, equity and excellence, developmental appropriateness, teaching whole child, and student-teacher relationships. These five principles used for this study help guide teachers in increasing student success and achievement. Teachers applying these principles in the classroom can decrease racial inequities, connect content to students' cultural backgrounds, and increase the achievement of students of color. In addition, connecting diverse students' cultures, experiences, and skills to the curriculum may decrease the achievement gap (Allen & Boykin, 1992).

Culturally Relevant Pedagogy				
<u>Identity and Achievement</u>	<u>Equity and Excellence</u>	<u>Developmental Appropriateness</u>	<u>Teaching Whole Child</u>	<u>Student Teacher Relationships</u>
Identity development	Dispositions	Learning styles	Skill development in cultural context	Caring
Cultural heritage	Incorporate multicultural curriculum content	Teaching styles	Bridge home, school and community	Relationships
Multiple perspectives	Equal access	Cultural variation in psychological needs *motivation *morale *engagement *collaboration	Learning outcomes	Interaction
Affirmation of diversity	High expectations for all		Supportive learning community	Classroom atmosphere
Public validation of home-community cultures			Empower students	

Figure 1.3. Five principles of culturally relevant pedagogy. Information for the model retrieved from (Brown-Jeffy & Cooper, 2011, p. 72).

Identity and Achievement

The framework's identity and achievement category comprise identity development, cultural heritage, multiple perspectives, affirmation of diversity, and public validation of home-community cultures (Brown-Jeffy & Cooper, 2011). The concepts that comprise the first principle of culturally relevant pedagogy focus on how people perceive themselves and others. Concerning the teacher-student relationship, teachers must be aware of their own identities and attuned to the uniqueness of their students (Brown-Jeffy & Cooper, 2011). Research has supported the continual rise in classroom diversity, and teachers must be aware of the cultural and racial identities of the students they serve for equitable academic achievement. When teachers are aware of the variance of cultures within the classroom, they can begin to practice culturally relevant pedagogy (Brown-Jeffy & Cooper, 2011). In addition, an awareness of diversity within the school will create opportunities for students of color to have a voice and begin to break down the dominant ideology that has been the foundation of education for so long.

Equity and Excellence

The second principle in Brown-Jeffy and Cooper's culturally relevant pedagogy framework, equity in education, rests on the idea that each student needs access to what they need to succeed. This concept is not the same idea as equality. Equity allows students of color access to the same resources and opportunities as their White counterparts. Dispositions, incorporation of multicultural curriculum content, equal access, and high expectations are all concepts related to equity and excellence, the second principle of culturally relevant pedagogy (Brown-Jeffy & Cooper, 2011). Students have many differences, including their identity, learning ability, communication styles, and

socioeconomic class. In addressing those needs, teachers must work to meet each student's needs to be equitable. "Giving children what they need means believing a difference is good, differentiated instruction is essential for some, and culturally relevant pedagogy practices can enhance learning" (Brown-Jeffy & Cooper, 2011, p. 10). Teachers must see and value their students' racial and ethnic backgrounds and incorporate those diverse experiences into teaching and learning to create equity in academic achievement.

Developmental Appropriateness

Learning styles, teaching styles, and cultural variation in psychological needs (motivation, morale, engagement, collaboration) comprise the third culturally relevant pedagogy principle of developmental appropriateness (Brown-Jeffy & Cooper, 2011). Teachers must build relationships with their students and get to know their backgrounds and how they learn. Building relationship aids teachers in understanding what is cognitively and developmentally appropriate for their students. "In addressing developmental appropriateness, the teacher should be interested in what is culturally appropriate or relevant for the culturally diverse students in his or her classroom" (Brown-Jeffy & Cooper, 2011, p. 75). To meet students' developmental needs, differentiation of instruction must happen while using their learning styles and funds of knowledge.

Teaching Whole Child

Teaching the whole child aligns with developmental appropriateness. This principle also includes "skill development in a cultural context, home-school-community collaboration, learning outcomes, supportive learning community, and empowerment"

(Brown-Jeffy & Cooper, 2011, p. 75). Teachers who consider the whole child's needs, including social, emotional, academic, and physiological, demonstrate culturally relevant pedagogy. "Children bring with them to school culturally-based ways of doing, seeing, and knowing; in response, culturally relevant teachers find ways to scaffold those cultural experiences for the students to gain additional meaning and ultimately be successful" (Brown-Jeffy & Cooper, 2011, p. 77). Students do not merely succeed from what they learn in school alone. Students must incorporate their funds of knowledge into their learning for increased success and meaningful learning.

Student-Teacher Relationships

The fifth principle of culturally relevant pedagogy encompasses the student and teacher relationship. This principle comprises caring, relationships, interaction, and classroom atmosphere (Brown-Jeffy & Cooper, 2011). Teachers have a primary relationship with students and spend most of the day with their students. Therefore, they must build positive relationships with their students to impact other parts of the student's life. Conversely, a teacher's positive or negative relationship with a student will significantly impact a student's academic, social, emotional, and psychological behavior. Brown-Jeffy and Cooper (2011, pp. 78–79) states "to form better relationships with students, teachers should consider and value their students' counter-stories and realities of lived experiences." When teachers try to build relationships and listen to their students' voices, it unequivocally opens up the platform to address racial inequities and create an understanding and caring relationship between teacher and student.

Highlighting data from the US Department of Education, this chapter illustrates the increasing student cultural diversity in classrooms. However, this chapter also

revealed that students of color continue to underperform compared to their White counterparts. To intervene in the cultural mismatch between students of color and the White dominant educational system, utilizing the five principles of culturally relevant pedagogy as the theoretical framework is necessary. The five principles of culturally relevant pedagogy are identity and achievement, equity and excellence, developmental appropriateness, teaching the whole child, and student-teacher relationships. The indicators of these five principles, equal access to curriculum and opportunities, teachers' understanding of students learning styles, relationship building, empowering students, and affirmation of diversity, to name a few, will begin to decrease racial inequities and potentially decrease the achievement gap.

Research Design

This study utilized a qualitative multiple-case study research design. A multiple-case study design allowed for individual cases and cross-case analysis (Creswell & Poth, 2018). This study examines the influence of professional development focused on cultural responsiveness on teacher thinking and practice. Participants in this study were chosen because of the ease of access and ease of access, I was their educator evaluator. The participants work in Hot Springs, Arkansas, at Hasborough Middle School, a 7th–9th grade Public Charter Campus. The participants, 7th–9th grade teachers, participated in a four-hour professional development on cultural responsiveness. The first hour focused on participant reflection on their thinking and implicit bias. The second hour concentrated on examining the participant's own culture. Hour three centered on culturally responsive strategies participants could incorporate in the classroom and during instruction. Finally, the last hour allowed participants to plan, reflect, and dialogue.

Data for this study was collected through a questionnaire, one semi-structured interview, two observations with each participant, and ongoing brown bag luncheons. The interviews were recorded and transcribed, and field notes taken during the observations. The research question was answered for each case by analyzing and categorizing the data collected from the pre-professional development questionnaire, interviews, and two observations. Cross-case analysis revealed common themes that emerged between individual cases in this study. Lastly, the emerging themes then aligned to the study's theoretical framework.

Definition of Key Terms

Achievement Gap: refers to the difference in academic scores between students of color and the dominant culture (Phillips, 2017).

Critical Race Theory: “brings together issues of power, race, and racism to address the liberal notion of color blindness and argues that ignoring racial difference maintains and perpetuates the status quo with its deeply institutionalized injustices to racial minorities” (Martinez, 2014, p. 9).

Culturally Relevant Pedagogy: is a “theoretical model that not only addresses student achievement but also helps students to accept and affirm their cultural identity while developing critical perspectives that challenge inequities that schools (and other institutions) perpetuate” (Ladson-Billings, 1995, p. 469).

Culturally Responsive Teaching: “is a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (Ladson-Billings, 2009, p. 20).

Culture: “an expression of human values: i.e., food, shelter, dress, music, religion, language, etc.” (Uche, 2005, p. 47).

Diversity: is all of a person’s cultural differences.

Funds of Knowledge: are the skills students bring to the table and their experiences (González et al., 2005).

Multicultural Classroom: is a type of classroom that embraces “educational practices directed toward race, culture, language, social class, handicap, etc.” (Uche, 2005, p. v).

Outcomes: for this study outcomes will refer to student engagement, increased self-esteem/efficacy, community, communication, relational, cultural competence, academic, reciprocal dialogue, and motivation.

Professional Development (professional development): is training or workshop when learners expand specific knowledge in their field.

Race: describes a person’s physical characteristics; Black, White, and Hispanic.

Conclusion

Finding a solution to the academic disparity between students of color and White students is critical to narrowing the achievement gap. “The need for all teachers to be prepared to teach all students effectively can hardly be understated; it is now a demographic imperative” (Hayes & Juarez, 2012, p. 4). Engaging in culturally responsive teaching strategies and practices is essential to educate all students who do not share the same culture. This study explores the thinking and practices of five teachers who have participated in professional development centered on culturally responsive teaching.

The next chapter offers insight into the overarching issues that students of color face in classrooms—precisely, the achievement gap. Chapter Two, details research regarding the cultural disconnect between teachers and their students and the lack of teachers with proper preparation and training to work with diverse learners. The literature review also investigates the characteristics of effective and ineffective professional development. Chapter Two concludes by illuminating culturally responsive teaching as a tool to combat the achievement gap and teachers’ lack of preparation to teach in the diversity of 21st-century classrooms.

CHAPTER TWO

Literature Review

Introduction

The world's demographics are changing. As reported by Goldenberg (2014) currently 63 of 100 of the largest U.S. school districts are already more than half students of color and by 2050 students of color will make up two-thirds of American K–12 classrooms” (p. 113). History paints a picture of the disparity in achievement between students of color and White students, and this achievement gap remains in the 21st century. The achievement gap is a crucial issue in education. The No Child Left Behind Act of 2001 focused on closing the achievement gap as part of federal education accountability (Ansell, 2011). Public schools should help students reach their full potential and become productive citizens. In all schools, students should have equity regardless of race, ethnicity, and socioeconomic status.

In response to the data illustrating the problematic achievement gap between students of color and their White peers and the lack of teachers demonstrating culturally responsive practices in the classroom, teachers need explicit professional development centered on cultural responsiveness. Therefore, the chapter argues that professional development centered on culturally responsive teaching may be a way to address the achievement gap. The ensuing argument unfolds in five stages. First, this literature review surveys scholarship on the achievement gap, illuminating academic disparities between students of color and their White peers and a lack of teacher preparedness to handle increased cultural diversity in the classroom. Third, this literature review explores

Critical Race Theory and the intersection of biases, stereotypes, and color blindness. Then, this literature review examines the use of purposeful professional development to prepare teachers for cultural responsiveness in the classroom. Finally, this literature review concludes by drawing out the implications of teacher participation in culturally responsive professional development directly impacting students of color's success.

The Achievement Gap

The enduring academic disparity between students of color and their White counterparts has plagued diverse classrooms for years. As a result, students of color are academically behind their White counterparts (Ladson-Billings, 2009). The effects of the achievement gap are not limited to a classroom or school setting. Instead, the consequences are far-reaching issues that impact all of society.

Often, the current educational system aids in producing students of color who are less prepared than their White counterparts. The educational inequality between students of color and White students at each grade level has been longstanding and evident in academic achievement (Berkowitz, 2010; Chubb & Loveless, 2002; Fujimoto, 2010; Karoly, 2015; Ladson-Billings, 2006; Phillips, 2017; Yeh, 2015). The average student of color performs academically, equivalent to the lowest-achieving White student (Chubb & Loveless, 2002). This issue poses a grave danger to communities in general and our education system. This achievement gap contributes to feelings of inferiority, systemic racism, and the continual limitations of people of color in positions of power. The achievement gap is caused by several factors, including lack of opportunities, resource allocation, the hegemonic school curriculum, the demographic divide between teachers

and students, the lack of high-quality teachers in low SES and urban schools, and the lack of teacher preparation for culturally diverse classrooms.

The opportunities afforded to students of color are often vastly different than their White peers (Moreno, 2014). Also, the low socioeconomic status of students of color contributes to the absence of high-quality academic experiences compared to their White counterparts (Wexler, 2018). Students of low socioeconomic backgrounds are less likely to have strong phonological awareness, access to a home library, use of a computer, and travel experience outside of their hometown (Aikens & Barbarin, 2008; Buckingham, Wheldall & Beaman-Wheldall, 2013; Bergen, Zuijen, Bishop, & Jong, 2016). Poverty is a natural inhibitor for families to gain comparable resources and experiences to wealthier families. As a result, students from low SES backgrounds often have different experiences than high SES students. It can be challenging for students in poverty to construct connections to the curriculum and teaching of the dominant culture.

Resource allocation also plays a vital role in the achievement gap. Money, human capital, and time directly correlate with student achievement (Koligian, 2012). In areas of poverty, there is an inequity of property values as compared to more affluent neighborhoods. Even though low socioeconomic areas receive federal funds, more than half of school funding comes from local state taxes. The allocation of funding from local state taxes results in schools with high poverty receiving fewer funds and allocating funds to other school issues (King & Ramirez, 1994), like facilities and athletics first. Funding disparities also contribute to factors such as a lack of ability to hire well-qualified teachers, implement high-quality curriculum, and acquire valuable resources, which directly impact student achievement and are pushed further down the list. Schools with

students from the highest concentrations of poverty have fewer library resources, fewer highly qualified staff, teachers with less professional development, and less of a focus on teaching and learning than those schools serving middle-income children (Muijs, Harris, Chapman, Stoll, & Russ, 2009; Pribesh, Gavigan, & Dickinson, 2011). “Inequitable school finance systems inflict disproportionate harm on minority and economically disadvantaged students” (Clyde, 2001, p. 211). Equity of resources and funding is necessary for a level playing field and the achievement of students of color.

The hegemonic ideology of schools, including using a one-size-fits-all curriculum premised on White middle-class culture, contributes to the achievement gap. “Most textbooks used in schools are founded on the dominant group (European Americans) and confirm its status, culture, and contributions” (Gay, 2018, p. 144). The hegemonic White middle-class ideologies also influence school policies and teaching in the classroom. As a result, students of color often feel marginalized and disconnected because the curriculum does not reflect their lived experiences or connect to their funds of knowledge, leaving them to struggle academically.

Another significant factor that contributes to the achievement gap is the demographic divide between teachers and students. Twenty-first-century classrooms have various cultures, but there is a racial mismatch between students and teachers. “Students of color made up more than 40 percent of the school-age population, and teachers of color were only 17 percent of the teaching force” (Boser, 2014, p. 1). The racial mismatch between students and teachers contributes to the achievement gap. The demographic divide between students and teachers often contributes to a lack of student engagement and higher discipline rates for students of color. “According to a significant

body of research, students tend to benefit from having teachers who look like them, especially non-white students” (Miller, 2018, para. 4). Students of color view teachers who look like them as role models and can engage at greater depth when the material presents itself in a way that connects to their lived experiences, causing an increase in student success (Miller, 2018). There is great power in connection. When a student can visually see a teacher, leader, or someone in authority that looks like them, it raises students’ ability to relate and engage with those in power. The cultural mismatch between students and teachers can affect students’ graduation rate, performance and success, expectations, and self-efficacy. Although a teacher does not need to mirror a student’s race, problems may develop with an increasingly diverse student population and a predominantly White teaching force. Howard argues, “Race is a central factor in student interaction” (2016, p. 122). When race remains unaddressed in classrooms, the achievement gap may continue to grow (Howard, 2016). These consequences lead to missed opportunities for “teachers of color to serve as role models for all students, the potential of teachers of color to improve the academic outcomes and school experiences of students of color,” and an increase in self-efficacy in all students (Villegas & Irvine, 2010, p. 176).

Another contributing factor to the achievement gap is that minority students are less likely to have highly effective and well-trained teachers (Ansell, 2011; Cummins, 2007; Au, 2009). Local property taxes heavily fund public school districts in affluent areas. In contrast, high-poverty areas have lower home values and collect fewer taxes because of inadequate housing values. Also, schools in affluent areas have PTOs and Boosters, which provide significant outside funding, permitting federal money to increase

teacher salaries. The systemic inequalities in the relationship between zip codes and schools can affect highly effective and well-qualified teachers. “A growing body of research suggests that inequitable distributions of qualified teachers are a major cause of the achievement gap” (Clyde, 2001, p.212). Although federal funds aid in hiring highly qualified teachers, they do not guarantee decent working conditions for these teachers to retain them. High-poverty schools see a turnover of about 20% of teachers yearly, which is about 50% higher than non-Title I schools (Hardy, 2017). High turnover and the lack of qualified teachers contribute to the achievement gap.

A final factor contributing to the achievement gap is teachers’ lack of preparation to work with diverse learners. Educators often do not have the proper training to engage a class of students from different cultures effectively. As a result, many teachers enter the profession unprepared to work with a diverse student population. In addition, teacher education is often primarily rooted in White-dominated cultural ideals, beliefs, and perspectives (Sleeter, 2001). The lack of training leaves many teachers struggling to meet today’s culturally diverse students (Barnes, 2006; Gay, 2018). When teachers are unprepared to meet all students’ needs, not highly effective at instruction, have low expectations, are not relatable, and lack content knowledge, student achievement, and success suffer as students disengage and are not motivated to learn.

Therefore, a concerted effort must happen to prepare teachers to reflect on their cultural understandings and examine their cultural and racial biases, along with developing skills and strategies to build relationships with students, recognize and utilize students’ funds of knowledge, and engage in culturally responsive teaching practices. Teachers play a crucial role in educating and empowering students of color, and teacher

professional development is essential to this process. Social justice, cultural pluralism, and equity among students require intentionality with inclusion and cultural integration. Inequitable classroom practices inhibit student achievement and devalue cultural identities, and continue to emphasize the social constructs of race and racism. Addressing racial oppression and disparities can begin in the classroom by hearing students' voices and experiences and unveiling counter-stories. Ignoring an individual's race perpetuates the inequity and achievement gap. The dominant culture infiltrates classroom textbooks and standards, causing the disparity between students of color and their White peers to grow.

Critical Race Theory

Critical Race Theory is a framework that supports the dissolution of practices that continue to marginalize students of color (Cao, 2016). The underlying principles of Critical Race Theory suggest that specific racial groups are privileged and have more advantages because of structural systems of oppression that disenfranchise and marginalize minority groups (Marion & Gonzales, 2013). In particular, Critical Race Theory suggests that European, White, middle-class traditions that inform schooling practices premise on the assumption that students of color possess cultural deficiencies and lack cultural wealth (Cao, 2016). Therefore, Critical Race Theory encourages a critical examination of beliefs that marginalize students of color and widen the achievement gap.

Professional development incorporating elements of Critical Race Theory can help teachers understand hegemony and open their minds to academic, social, and cultural bias. School systems tend to support one type of demographic, the White middle-

class student. Geneva Gay (2018) expresses that schools use textbooks that present views based on European American lived experiences and culture while presenting their philosophies and outlooks as fact. Gay argues that books used in United States public schools show no equity and exclude racial and ethnic groups resulting in many historical inaccuracies. Teachers can use the underpinnings of Critical Race Theory to explore opportunities for underrepresented populations in education, school climate, and pedagogy (Ledesma & Calderón, 2015). In evaluating the items mentioned above, teachers can directly impact students of color within the classroom.

This study uses Critical Race Theory as a lens for teachers to understand the need to eliminate the cultural invisibility and academic marginalization surrounding students of color. Many teachers are uncomfortable addressing race in the classroom. However, silencing or ignoring racial issues further inhibits the academic success of students of color. Research has shown that the CRT framework can help disrupt stereotypes and raise cultural awareness (Sleeter, 2017). To encourage the contributions and experiences of students of color, educators can foster pushback against the dominant White culture by welcoming tough conversations. Frank and honest dialogue are paramount to uncovering personal biases and open-mindedness for diversity to transpire. It is up to policymakers in education and educators to integrate race and culture into the classroom's standards and content while coaching and training students to be accountable communicators with tolerance and open-mindedness for cultural pluralism.

Critical Race Theory encompasses three tenets: "interest convergence challenges to claims of neutrality, color blindness, and experiential knowledge" (Sleeter, 2017, p. 157). First, interest convergence for teachers happens when educators of color dominate

White educators' interests (Milner, 2008). The significance of interest convergence occurs when educators of color reveal skills and experiences, illuminating their voices, cultures, and stories. The intersection allows the dominant White race to gain insight and knowledge of beliefs, cultures, and experiences outside their own, outwardly acknowledging their race. Acquiring this type of knowledge will assist teachers in building relationships with their students of color. Teachers can use instances where race comes up in the classroom to address race inequalities and challenge the White-dominated culture (Au, 2009). As culturally responsive teachers acknowledge race and how it impacts others, it benefits students' achievement and understanding of the world around them. The third tenet, experiential knowledge, calls for the inclusion and valuing of people of color's experiences, stories, and ideas (Sleeter, 2017). Research exhibits that education through Critical Race Theory can help teachers lessen the inequities between students of color and low socioeconomic status students and their White, high-socioeconomic-status peers (Sleeter, 2017). An educator's commitment to teaching the whole child will help yield productive members of society. When teachers reach students beyond academics, they nurture all areas of the child, including social, emotional, and cognitive skills, which lays the foundation for life-long learning.

Professional Development

Professional development is an essential tool for preparing highly qualified teachers who have relevant and researched-based knowledge, practices, and skills necessary for high-quality classroom instruction (Canaran & Mirici, 2019; Creating Coherence, 2014; Hynds et al., 2016; Koba, 2013; Puhala, 2020; Wallace, 2014). Professional development programs are "systematic efforts to change teachers' classroom

practices, in their attitudes and beliefs, and the learning outcomes of students” (Guskey 2002, p. 381). Teacher professional development can positively and directly influence students and is critical for improving teaching and learning (Desimone, 2011; Parsons et al., 2016; Darling-Hammond et al., 2009; Puhala, 2020; Wallace, 2014). Implementing professional development is key to its efficacy in the classroom. Much emphasis should be placed on improving teacher preparedness and practice toward equality. Effective professional development aims to meet the needs, ideas, and expectations of teachers throughout the instructional design process (Adamantios et al., 2009; Canaran & Mirici, 2019; Koba, 2013; Wallace, 2014; Wlodkowski, 2003). The primary goal of professional development is to enhance teacher practices and ultimately improve student achievement and success, which cannot happen without ongoing professional development, participation, and content-focused professional development (Guskey, 2014; Zepeda, 2012).

Characteristics of Effective Professional Development

According to the National Center for Educational Statistics, there are several critical elements for high-quality professional development (Guskey, 2000; Sarquis, 2001; Harris, 2000; Hawley, 2007). Duration, participation, and content focus are elements of effective professional development (Birman et al., 2000; Tournaki, Lyublinskaya & Carolan, 2011). Implementing these professional development elements increases student achievement (Elmore, 2002; Guskey, 2003; Bates & Morgan, 2018; Wei et al., 2009). Researchers have studied the elements mentioned above, and determined when these professional development elements are implemented they can assist teachers in providing equitable instruction for all learners. Planning culturally

responsive, focused professional development utilizing these elements of high-quality professional development is vital in helping teachers receive high-quality training that impacts their instruction. The following section outlines research on the three elements of effective professional development and its impact on teachers.

Duration. The time in which professional development occurs impacts teacher learning (Darling-Hammond, 1995). Change in teacher practice occurs with reoccurring and sustained professional development over time. Ongoing professional development reenergizes staff and provides constant support for implementing gained knowledge in the teacher's classroom. Research shows that professional development that is a "one-shot" approach is not effective for teachers to implement successfully in the classroom (Garet, Porter, Desimone, Birman & Yoon, 2001). The most effective and significant changes can happen to student achievement if professional development is sustained (Darling-Hammond et al., 2009). Multiple-day events where teachers can engross themselves in learning have proven more effective than short, overly programmed, one-time training. In these shorter professional development opportunities, there is often insufficient time for hands-on activities, coaching, modeling, and a high-quality learning experience (Birman et al., 2000). If continued for an extended time, focused professional development on culturally responsive teaching could set the bar high for teachers to be ready for the changing classroom demographics.

Participation. Active participation involving full cognitive engagement, critical reflection, and collaboration with others is another vital element for effective professional development. "By working collaboratively, teachers can create communities that

positively change the culture and instruction” (Darling-Hammond, Hyler, & Gardner, 2017, p. v). Professional development allows an individual to stay informed and current on skills needed in their field. Teacher collaboration aids in acquiring strategies and practices for the diverse classroom and uncovering and reflecting on implicit bias. When participants discuss, role-play, think critically, and problem-solve, they engage in active learning, which allows for a deep understanding of the content taught (Darling-Hammond, 2015). Through collaboration, teachers can actively learn teaching strategies, get feedback, and analyze student work rather than watch others do it or a video (Desimone, 2011). Goal setting and setting specific objectives for professional development are vital. When individuals are aware of the learning in the professional development session, their attention increases, and they are likelier to walk away with new knowledge. Goal setting and learning targets engage learners and increase motivation, prohibiting disengagement (Guskey, 2014; Zepeda, 2012). Learners who have targets and goals set take more accountability for their learning and are motivated to meet their goals. When professional development participants are engaged and motivated, it promotes an efficient and effective transfer of knowledge gained in professional development into their classrooms.

Content focus. Consideration of the structure of professional development is key to its success. Professional development focused on teachers’ real-time experiences allows for significant gains in teachers’ practices. When teachers can have specific, structured, ongoing, focused professional development, their teaching practices are more likely to translate as a success for the student (Borko, 2004). Research illustrates that non-engaging or non-interactive activities are not as productive for gaining knowledge

and skills (Desimone, Smith & Phillips, 2007; Garet et al., 2001; Tournaki, Lyublinskaya & Carolan, 2011). Instead, deliberate, meaningful, and focused activities are more influential in creating change in teachers' acceptance and professional development engagement (Darling-Hammond, 1995). When professional development is focused and personalized, more significant learning can occur.

Effective professional development, duration, participation, and content focus are necessary for teachers to improve instruction, perceptions, and practices in a demographically diverse classroom. The explicit professional development aids in teachers examining themselves and their beliefs, which is beneficial in teaching diverse students. These elements will aid in the implementation of culturally responsive teaching.

Culturally Responsive Teaching

Culturally responsive teaching embraces the idea that students' cultures, beliefs, and ideologies are assets to the classroom. "Culturally responsive teaching uses the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant and effective for them" (Gay, 2018, p. 36). Culturally responsive teaching is more than just an engagement strategy used in diverse classrooms (Hammond, 2014). For effective teaching and learning, a prevalence of culturally responsive teaching must be present in present-day classrooms.

According to Gay (2002), there are five essential components of culturally responsive teaching. The components of culturally responsive teaching are "(a) developing a knowledge base about cultural diversity, (b) including ethnic and cultural diversity content into the curriculum, (c) demonstrating caring and building learning

communities, (d) communicating with ethnically diverse students and families, and (e) responding to ethnic diversity in the delivery of instruction” (Gay, 2002, pp.106-112).

Developing a Knowledge Base about Cultural Diversity

To foster cultural responsiveness, teachers must first understand their own culture and implicit bias (Delpit, 1995; Delpit, Dowdy & Kilgour, 2002; Gay, 2018; Ladson-Billings, 1994). By understanding their culture, teachers can gain knowledge of the students in their classroom. Acknowledging students’ cultural heritage and ethnicity is part of culturally responsive teaching (Gay, 2018; Hammond, 2015). When teachers allow their students to share their stories and talk about their histories and home culture, they will feel valued. Students take ownership of learning and feel more confident speaking and talking about their beliefs. “Teaching that addresses a student’s cultural traditions affects not only the learning process but also the student’s self-efficacy—the student’s belief in his or her ability to achieve a specified goal” (Martins-Shannon & White, 2012, p. 4). Students' learning process and comprehension heightened when students are engaged and brought into the learning.

Responding to Ethnic Diversity in the Delivery of Instruction

When students can bring their voice and native language into the lesson and classroom, they will understand the content more than if they had no personal stake. Intentionally bringing students’ lived experiences into the lesson will allow for the spark of a personal connection, and students will be likely to have more success with the curriculum. There is value in the relationship between culture and content, and when it is appreciated, understood, and talked about, students will demonstrate higher achievement (Bonner et al., 2018)

Cross-Cultural Communication

Incorporating multicultural books, guest speakers, and communication patterns within a classroom can help foster a greater connection between the content taught and the student (Gay, 2018). Having a variety of multicultural information allows students to understand other cultures and the world around them. When students see themselves mirrored in their teachers and resources, they become engaged, empowered, and better at information processing. Incorporating cultural context into subjects and skills taught will increase student information processing and achievement (Hammond, 2014).

Including Ethnic and Cultural Diversity Content in the Curriculum

Culturally responsive teaching uses the connection between home and school life to build learning and increase student achievement (Gay, 2018). Students can achieve more when content or standards related to their lived experience and knowledge. Student connectedness to content through culturally responsive practices enhances student knowledge as they are more engaged in learning (Hammond, 2014). “Cultural relevance is the key to enabling the cognitive process necessary for learning and imperative for engaging and unleashing the intellectual potential for students of color” (Hammond, 2014, p. vii). Incorporating culturally responsive teaching into the classroom makes learning more meaningful, and students become more engaged (Bonner et al., 2018).

Demonstrating Caring and Building Learning Communities

As teachers create connections with their students, caring relationships begin to form. This closeness that caring brings is essential in working effectively with students (Gay, 2018). When students of color are seen, respected, and valued, their growth emotionally, socially, and academically increases (Gay, 2018). In alignment with Brown-

Jeffy and Coopers' culturally relevant pedagogy model, student-teacher relationships are strengthened and prompt achievement. This type of relationship that students have with their teachers motivates them to do well.

Conclusion

Gay's five culturally responsive components, alongside Brown-Jeffy and Cooper's culturally relevant pedagogy theoretical framework, Figure 2.1, provides a framework for promoting equity within the classroom. The research discusses culturally responsive teaching and the connection to students and content as "an effective way of addressing the achievement gap" (Griner & Stewart, 2013, p. 585). The academic impact of culturally responsive teaching on students of color is limitless. "When practiced correctly and consistently, it can make underperforming students of color who get caught on the wrong side of the achievement gap ready for rigorous learning by building their brainpower" (Hammond, 2014, p. 3). All students are more successful when educational opportunities are equitable. Knowing students and how they learn allows the teacher to provide different learning modes for them and their varying learning styles (Gay, 2018). Intentionality in addressing a variety of learning styles will help provide equity and congruence in teaching a diverse student population and support to meet students of color's academic needs.

Figure 2.1 visually demonstrates the connection between CRT and Brown-Jeffy and Cooper's framework. There are similarities and difference between the two frameworks. One similarity is that they both have five components/principles that encompass equality and educational opportunity. Another similarity is that both CRT and Brown-Jeffy and Coopers' framework take into account students of color, by using their

components/principles as a lens for success and achievement. One major difference that stems between CRT and Brown-Jeffy and Coopers' framework is that Brown-Jeffy and Coopers' framework encompasses the whole child and what is developmentally appropriate for them. It delves into the physiological aspect of the child as well as educational.

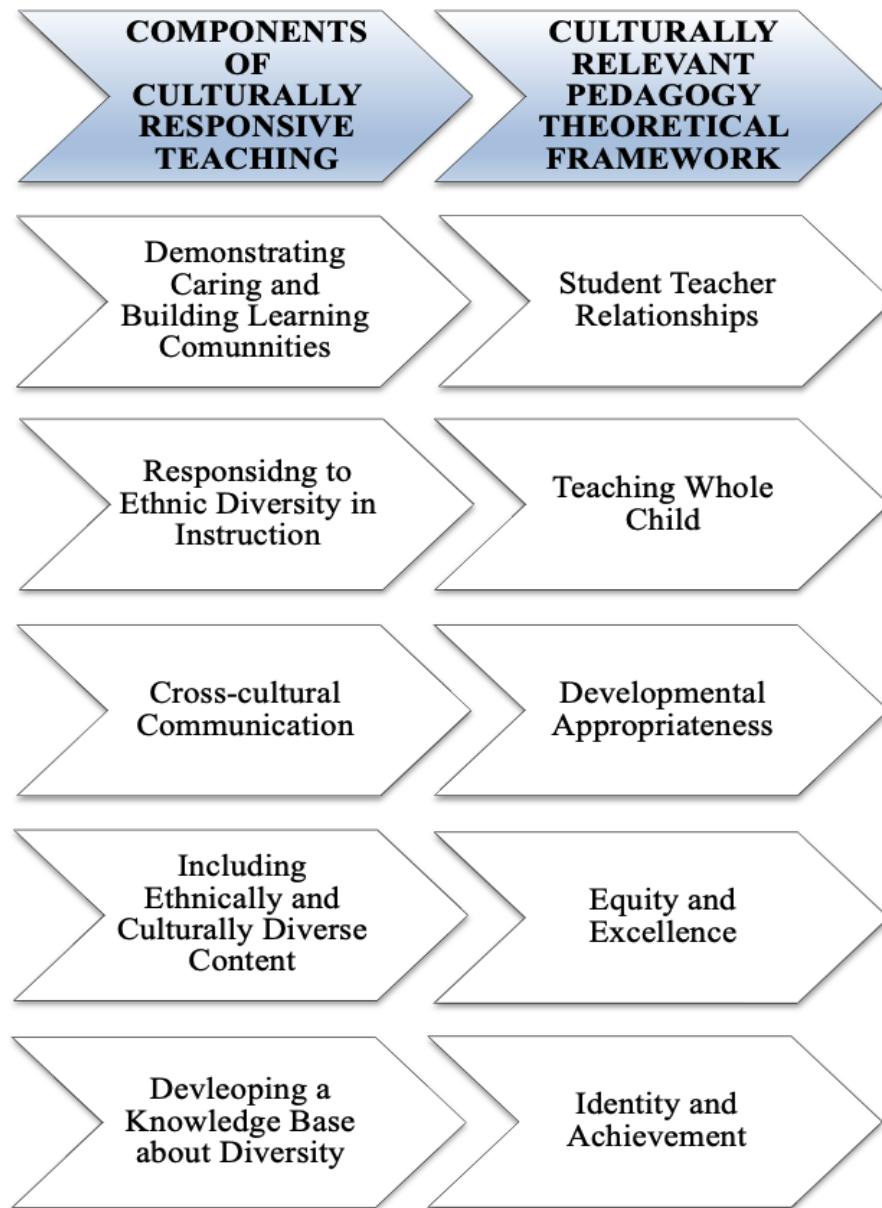


Figure 2.1. Alignment of culturally responsive teaching with Brown-Jeffy and Cooper's theoretical framework.

Addressing the Achievement Gap through Professional Development

As previously discussed, the achievement gap causes include a lack of opportunities, resource allocation, the hegemonic school curriculum, the demographic divide between teachers and students, the lack of high-quality teachers in low SES and urban schools, and the lack of teacher preparation for culturally diverse classrooms. This chapter further explained the principles of effective teacher professional development and culturally responsive teaching. Based on this literature review, one way to address the achievement gap is to design and implement professional development for teachers focused on culturally responsive teaching. Purposeful professional development centered on cultural responsiveness is beneficial for several reasons. First, culturally responsive professional development assists teachers' growth and development toward equity in education. Second, intentional, culturally responsive professional development refutes a White-dominated curriculum that continues to prevail in classrooms. Third, professional development focused on culturally responsive teaching increases preparedness for diverse demographics, increases self-efficacy, raises cultural competence, and shapes teachers' instructional practices.

Growth and Development Towards Equity in Education

Implementing culturally responsive professional development for teachers is essential in teacher growth and development for fostering equitable education for all students (Nieto, 2002; Weinstein et al., 2003; Irvine, 1990). Unfortunately, not all teachers possess the tools to teach students who do not share the same cultural and social beliefs or have the same lived experiences. For this reason, there is a need for educators in present-day classrooms to gain training to teach diverse groups of students through

culturally responsive teaching professional development. Valdez Noel (2016) talks about educators participating in professional development centered on culturally responsive teaching and their implementation of “cultural knowledge as a vehicle to teach core subjects, validate diverse perspectives, build on students’ histories, and empower and transform social realities” (p. 54). Equity is displayed when culturally responsive practices incorporate into the classroom and the curriculum. As a result, the academic disparity between students of color and their White peers will begin to disappear.

Refutes a White-Dominated Curriculum

Teachers often learn from a curriculum based on White-dominated cultural ideals, beliefs, and perspectives during their educational experiences. Schools must work to change practices and adopt transformative principles and behaviors to be more inclusive. A connection between a student’s culture and educational content is necessary to close this significant gap. Suppose teachers have never been exposed to or prepared to teach other cultures besides their own. In that case, participation in culturally responsive, focused professional development may allow them to develop the skills necessary to work with diverse learners. To be an effective and empowered teacher able to meet all students’ needs and close the racial and academic achievement gap, culturally responsive teaching is essential (Gay, 2018; Ladson-Billings, 1995).

Increases Preparedness for Diverse Demographics

One of the critical elements in preparing teachers to work with diverse learners is cultivating self-reflection and teachers’ critical consciousness. Educators of all racial groups must be willing to grow personally and professionally to disrupt hegemonic teaching and curricular practices (Howard, 2016). Howard (2016) states that, “Educators

cannot reasonably approach issues of the achievement gap without significantly enhancing their awareness and effectiveness in cross-racial and cross-cultural interactions” (p. 123). As teachers participate in ongoing, culturally responsive, focused professional development, self-efficacy and competence will increase. Teachers incorporating what they learned in professional development into the classroom and with their students will feel like they can teach culturally diverse students. This increase in self-efficacy “inevitably translates to success for many students” (Valdez Noel, 2006, p. 45).

Raises Cultural Competence

Cultural competence is an integral part of cultural responsiveness. Cultural responsiveness teaches students cultural competence. According to Ladson-Billings (1995) cultural competence is “the ability to function effectively in one’s culture of origin and to use one’s culture to relate to other’s cultures” (p. 465). Individuals exhibit cultural competence when interacting with people from other cultures and holding differing ideals. In a culturally responsive environment, individuals must also be able to appreciate the beliefs and values of others. Cultural competence aids in building relationships with students (Rajagopal, 2011). When students start to share their culture, teachers and their peers can begin to understand them. Teachers can use these opportunities to make meaningful connections with students when necessary. Student and teacher relationships like this are beneficial because they help students understand their learning and create positive academic outcomes (Bonner et al., 2018). Communication is a significant part of cultural consciousness and pluralism. Behaviors are changed when students understand who they are and consider other beliefs and cultures. When a teacher is aware of a

student's norms, they can take advantage of that and use it as a teaching opportunity to teach about another culture. Most importantly, their cultural awareness would make that student feel welcomed and valued in a classroom full of his classmates and allow for a high level of learning to be liable for their learning.

Impact on Teachers' Instructional Practices

The disparity in academic achievement between students of color and their White peers is addressed as teachers acquire strategies to use in the classroom that fuses content and culture. Teachers recognize and unpack cultural biases as they understand that people learn differently because of their experiences. Higher student achievement is displayed when there is greater acceptance, tolerance, and respect for others (Bonner et al., 2018).

Although positive outcomes arise from culturally responsive professional development, educators should understand that uncontrolled factors will continue to challenge their efforts toward narrowing the achievement gap. However, it is exigent that educators move away from merely teaching to the dominant culture and work to foster a culturally responsive classroom environment inclusive to all students to taper the achievement gap (Ladson-Billings, 2009). Furthermore, the knowledge gained from purposeful professional development is only as good as the teacher's self-efficacy in implementation. Therefore, consistently implementing culturally responsive practices and incorporating students' funds of knowledge throughout the learning process is essential for teachers to increase student achievement and academic success.

Conclusion

Culturally responsive teaching is necessary to combat the achievement gap and to provide teachers with the appropriate preparation to work with their diverse students and

strategies to improve their teaching practices. A deep understanding of the impact of racial bias has a significant influence on teacher perception. Teachers' realization of their own implicit bias and willingness to confront the suppression of race and cultures outside their own allows for quality instruction, learning, and student connection to content within the classroom. The literature suggests that culturally responsive professional development will impact the development and betterment of children, classrooms, schools, communities, and the nation.

While current professional development practices are not keeping students from reaching 100% proficiency, a change in professional development practices can go a long way in improving student achievement. Before schools can get students to proficiency, teachers must be proficient in their content knowledge and pedagogy. (Wallace, 2014, p. 15)

Developing the educator workforce allows for a greater understanding of people of all backgrounds, sanctioning more profound tolerance needed to reduce racial inequalities in all areas of life in general and in our modern-day classrooms.

CHAPTER THREE

Methodology

Introduction

Many teachers struggle to think beyond their own cultures to effectively teach a diverse student population. Considering the enduring achievement gap and increased student diversity in classrooms, this lack of teacher preparedness to work with diverse students poses a significant problem in education. It illuminates the need for focused teacher professional development. This research study explored professional development focused on cultural responsiveness influenced teachers' perception and practice. The study sought to answer the following research question: How does participation in professional development focused on culturally responsive teaching influence teacher thinking and practice in the classroom. This chapter articulates the methodology for the problem of practice. First, I explain my researcher's perspective and my proximity to the issue. Next, I outline culturally relevant pedagogy, the theoretical framework that informs the study. Then, I discuss the research design, including participant selection, data collection, data analysis, data validation, ethical considerations, and limitation

Researcher Perspective

Growing up as a Black girl in New York afforded me the positive experience of living in an environment embedded in cultural inclusion. Those experiences helped me understand my surroundings and made me more inclusive of other cultures and beliefs. In

my K–12 experience, I only had one teacher that looked like me, Ms. Cordelia. She is my favorite teacher because she gave me an image of a grown-up version of myself. She may not have understood me and my experiences entirely, but as a teacher of color, I knew she was a minority in a similar environment; she put effort into teaching me. She was willing to pour energy into learning about me and helping me to discover. She built a positive relationship with me, and her willingness to incorporate my funds of knowledge into my learning kept me engaged.

As a high school and college student, I began to see the disparity between students of color and White students. Differences between these two groups ranged from grades, cars, clothes, experiences, and vacations. As a teacher and administrator, I still see the disparity and understand the marginalization of students of color in the United States. Many of the students I see come from a low socioeconomic class who have not left the city they live in and do not share comparable experiences with their White peers. Several of these students have not been privy to the same opportunities. If never given that opportunity, they will continue to lack equality socially, emotionally, and academically with the dominant culture. As an educator and leader, my responsibility is to help narrow this achievement gap, and this can be accomplished through teacher professional development.

I conducted the study at Hasborough Middle School, where I serve as an administrator. As a change agent, my constructivist and transformative philosophy allowed me to bring my experiences and knowledge to my staff and school. I intended to develop culturally responsive teaching practices to narrow the disparity between students of color and their White counterparts. At Hasborough Middle School, I am also an

instructional facilitator and a direct link between teachers and students. My responsibility is to coach, partner, and train teachers to be effective instructors since they are crucial to their student's success. I saw first-hand the increase in student diversity at Hasborough Middle School and knew that teachers needed to meet the needs of all students, including those of different races and who have different beliefs and ideals. I viewed this study as a process of development or a journey. The participants and I collaborated toward educational equality, achievement, and student success. I analyzed the struggles and strengths of the teachers while communicating with openness and trust. Professional development on culturally responsive teaching at Hasborough Middle School transformed teacher preparedness and practices.

Theoretical Framework

As discussed in Chapter Two, the theoretical framework informing this study is Brown-Jeffy and Cooper's (2011) definition of culturally relevant pedagogy consisting of five principles. These five principles include: student-teacher relationships, teaching the whole child, developmental appropriateness, equity and excellence, identity, and achievement. In addition, Brown-Jeffy and Cooper's definition of culturally relevant pedagogy integrates the importance of incorporating culture in schooling like prior definitions. Still, it adds another component, race, and racism, in education (Brown-Jeffy & Cooper, 2011).

This framework applies to this study because teachers are often unprepared to teach to the ever-increasing diversity in the 21st-century classroom, aiding in the evident disparity between students of color and their White peers. Professionally developing teachers in addressing implicit bias and implementing an expectation of cultural

responsiveness in the classroom will aid equity and congruence in teaching a diverse student population and meeting students of color's academic needs.

Brown-Jeffy and Coopers' principles of culturally relevant pedagogy framework provides a model for addressing and impacting current teacher thinking and practice by allowing for the consideration of the intersectionality of race and learning during the instruction of content. Practicing these principles in the classroom with fidelity and increasing teachers' awareness of their own racial bias can positively impact racial inequities. Teachers can connect content to their students' cultural backgrounds and increase the achievement of students of color by implementing culturally relevant pedagogy principles.

The culturally relevant pedagogy framework informed the data I collected from participants' participation in professional development centered on culturally responsive teaching. The five principles were umbrella themes that I categorized interview data, observational field notes, and survey answers, which can be seen in Table 3.1. Culturally relevant pedagogy is one effective way to address the achievement gap. Brown-Jeffy and Copper (2011, p.79) state that "culturally relevant pedagogy is a promising area of research in determining the actual effects of the mismatch of the culture of particular populations within the educational system and the effects of schooling on the learning outcomes of children". Brown-Jeffy and Cooper's culturally relevant pedagogy framework informed my data coding approach. I used priori coding aligned with the five principles: student-teacher relationships, teaching whole child, developmental appropriateness, equity and excellence, and identity and achievement. Emerging themes

were then identified and discussed in depth. Finally, I conducted a cross-case analysis exploring the common themes that emerged across all cases.

Table 3.1

Brown-Jeffy and Coopers' Framework Aligned with Descriptive Notes

Case	Descriptive Notes from Interviews and Observations	CRP Framework
Case 1: Sara (gave her definition of CRT)	<ol style="list-style-type: none"> 1. Increased awareness of her bias 2. Uses students' prior knowledge 3. Uses students' experiences in answering questions 4. Motivation and engagement 5. Positive interactions with students 6. Cultural connections 7. Varying resources to help ELLs 	<ol style="list-style-type: none"> 1. Identity and Achievement 2. Equity and Excellence 3. Identity and Achievement 4. Developmental Appropriateness 5. Student Teacher Relationships 6. Identity and Achievement 7. Developmental Appropriateness
Case 2: Lia (gave her definition of CRT)	<ol style="list-style-type: none"> 1. Created a multi-cultural classroom library 2. Increased awareness of her implicit bias 3. Connecting culture to content 4. Incorporating culture into daily learning 5. Respectful talk between teacher and student 6. Engagement 	<ol style="list-style-type: none"> 1. Equity and Excellence 2. Identity and Achievement 3. Identity and Achievement 4. Equity and Excellence 5. Student Teacher Relationships 6. Developmental Appropriateness
Case 3: Britni (gave her definition of CRT)	<ol style="list-style-type: none"> 1. Increased awareness of her bias 2. Lesson planning incorporating students' culture 3. Makes an effort to build meaningful and positive relationships 4. Gave a platform for all voices to be heard 5. Connected students' cultures to learning 6. Gave choice in learning 	<ol style="list-style-type: none"> 1. Identity and Achievement 2. Developmental Appropriateness 3. Student Teacher Relationships 4. Teaching Whole Child 5. Identity and Achievement 6. Developmental Appropriateness
Case 4: Kasie (gave her definition of CRT)	<ol style="list-style-type: none"> 1. Awareness of her implicit bias 2. Fostered real world applications 3. Incorporated students' cultures into learning 4. Connecting past learning to present learning 5. Builds intentional positive relationships with students 	<ol style="list-style-type: none"> 1. Identity and Achievement 2. Developmental Appropriateness 3. Developmental Appropriateness 4. Teaching Whole Child 5. Student Teacher Relationships

Case	Descriptive Notes from Interviews and Observations	CRP Framework
Case 5: Ali (gave no definition)	<ol style="list-style-type: none"> 1. Incorporated student culture into instruction 2. Increased awareness of personal bias 3. Builds positive relationships 4. Gave students' a voice 	<ol style="list-style-type: none"> 1. Equity and Excellence 2. Identity and Achievement 3. Student Teacher Relationships 4. Teaching Whole Child

Research Design

This study utilized a qualitative, multiple-case study research design. Creswell and Poth (2016, p.41) state that, “Qualitative research is not easily explained, woven through general assumptions and interpretive frameworks”. Creswell and Poth (2016) discuss that the reason behind a qualitative study is to understand or address a problem or issue. Qualitative research explores experiences of a phenomenon and, in turn, provides a detailed understanding of that phenomenon. In this study, I chronicled the experiences of five teachers who participated in structured professional development focused on culturally responsive teaching, along with three brown bag cohort luncheons to discuss implementing culturally relevant practices following the professional development. Observations, interviews, and listening to dialogue from brown bag luncheons allowed me to attain rich, thick data indicative of qualitative research.

Specifically, this study utilized a case study methodology. According to Yin (2003), case studies are comprised of how and why questions surrounding the behaviors and beliefs of individuals (Creswell & Poth, 2018). This study’s central research question sought to explore the “how.” This study aimed to discover the connection between the context and the phenomena. This case study examined how focused professional development influenced five teachers’ culturally responsive thinking and practice. Premised on evidence in Chapter Two, this case study argued that culturally responsive

teaching was one potential solution for preparing teachers to teach to a more diverse demographic and narrow the achievement gap.

This study used a multiple case study design to explore five teachers' experiences at Hasborough Middle School in a small central town in Arkansas. One key strength of using multiple case studies is that it allows for increased data collection validity through cross-case analysis. Terry (2016, p.47) speaks on collective case studies and how they are a "review of several cases concerning a population, phenomena or general circumstances".

This study also provided professional development centered on culturally responsive teaching for five teachers. The one day professional development was from 8 am–3 pm and there were three objectives for participants to gain understanding on from the professional development. The first objective was to uncover personal perception. The second objective was to define and expose implicit bias. The third objective was classroom environment and creating an atmosphere that promotes self-awareness and a way for individuals to discuss differences.

In addition, three brown bag luncheons were scheduled for the five teachers to get together and dialogue about their specific experiences and classroom environments since participation in professional development. They also discussed how their awareness played a part in their thinking and classroom practices. The dedicated luncheon times allowed study participants time and space to speak openly about struggles and successes regarding perspectives on learning, self-awareness, and fostering cultural responsivity in the classroom. In addition, this research study utilized the theoretical framework of

culturally relevant pedagogy as a lens to holistically assess emerging themes in teachers' culturally responsive thinking and practice.

Site Selection

Purposefully selected, Hasborough Middle School is the site for this study for convenience, student demographic diversity, lack of teacher diversity, and the absence of culturally responsive training for staff. Hasborough Middle School is a public charter middle school located in a small, urban school district in the south-central part of the United States. This district serves approximately 4,000 students from kindergarten through 12th grade. With 801 seventh through ninth-grade students, Hasborough Middle School is the only middle school serving students in Hasborough School District. The student demographics at Hasborough Middle School are as follows: 36.3% White, 34% Black, 21.2% Hispanic/Latino, 7.3% two or more races, .6% Asian, .4% American Indian, and .2% Hawaiian/Pacific Islander.

Additionally, Hasborough Middle School and all other schools in the district are 100% free and reduced lunch. Hasborough Middle School employs 57 teachers, 30 White females, 11 White males, 7 Black females, 6 Black males, and 3 Hispanic/Latino females. Two reasons aided in choosing Hasborough Middle School for the site of this study. First, as the Assistant Principal, I was directly intertwined with the building, teaching staff, and instruction. The second reason for the site selection is that the student population was diverse; however, most teachers in the building were White females and had never participated in training focused on teaching students with diverse backgrounds. Although the research primarily focuses on White teachers, teachers of color need professional

development. In addition, although teachers of color may racially mirror students in their classrooms, their cultures and ethnicities may differ.

Participants and Sampling

The sample population involved five teachers at Hasborough Middle School who were chosen to participate in this study. The participants taught different subjects, which aided in the validity and reliability during cross-case analysis. Because I was the administrator at the purposefully selected site, I was able to easily interact with the five participants.

Three of the five participants were White, and two were Black. Their pseudonyms, degrees, age, sex, years in education and ethnicity can all be viewed in Table 3.2.

Table 3.2

Teacher Participant Demographics

Participant Names	Grade	Age	Sex	Ethnicity	Race	Highest Degree	Years in Education
Sara Winton	7 th	41	Female	Caucasian	White	Masters	18 years
Lia Nathans	7 th	35	Female	Caucasian	White	Masters	10 years
Britni Goth	9 th	30	Female	African American	Black	Masters	2.5 years
Kasie Bins	7 th and 8 th	39	Female	African American	Black	Masters	14 years
Ali Smith	8 th	43	Female	Caucasian	White	Bachelors	4 years

All five participants were the only teachers at Hasborough Middle School to take part in cultural responsiveness professional development. The participation of these five teachers only, in one questionnaire, one interview which can be seen in Appendix A, three brown bag luncheons, and had two forty-five minute classroom observations conducted in their

classrooms, would yield findings that could later be used for a larger population. However, the five participants had never engaged in professional development focused on culturally responsive teaching or in a teacher education program centered explicitly on culturally responsive teaching.

Data Collection

Data collection for this study included multiple sources, including one pre-professional development questionnaire, one 45-minute semi-structured interview, two 45 minute observations of each participant's classroom, and three brown bag luncheons. Using various sources enhances qualitative research's credibility (Yin, 2003). The data collection process began in September 2020 and ended in December 2020. All data collected adhered to the school district and guidelines of the IRB.

Questionnaire

The three-question pre-professional development questionnaire inquired if the participants had ever taken part in CRT professional development, were aware of their implicit bias, and what they knew about culturally responsive teaching. After asking participants if they have ever exhibited implicit bias and noticing that some participants were not fully aware of what implicit bias was, I defined it for them. After defining implicit bias I asked them the same question again, "Have you ever exhibited implicit bias? Yes or No? In what ways?," to understand the participants' knowledge level better and guide the creation and structure of the professional development. Surveying the teachers' level of knowledge on the content helped me to identify if they had to start from the basics or if they could use what knowledge teachers already had if correct and build

on it. Lastly, the questionnaire showed what the participants knew before participating in professional development.

Interviews

Data collected from one semi-structured interview, which can be seen in Appendix A, with each participant supported the study. Interviews are a way to collect data that one cannot observe directly. Yin (2003) states that interviews are “targeted, focused directly on the case study topic and insightful, provides perceived causal inferences” (p.86). I conducted a 45-minute semi-structured interview with each participant in their classrooms during their planning times and recorded their responses by hand. Participants did not want to be audio recorded, but they agreed to review my written recording to verify accuracy and reliability. These interview questions provided information on teachers’ backgrounds, culturally responsive teaching, and responses to professional development implementation. The interview questions were open-ended primarily so the participants could specify their experiences and the impact of their involvement in professional development on their culturally responsive thinking and practice. These semi-structured interviews took place between September 2020 and December 2020. One round of interviews post participation in professional development provided the adequate information needed for the study.

Observations

I conducted two direct classroom observations of each participant to explore their implementation of culturally responsive explicit thinking and practices. The two observations were 45 minutes each and conducted during the fall semester of 2020. During observations, I was interested in understanding how teachers employed cultural

responsivity in the classroom with their students. The observations occurred in two non-consecutive 45-minute class periods. I utilized an observation protocol to guide my observations. The protocol template included the participant's name and date of the observation as well as three columns; a column for descriptive notes, a column for reflective notes, and notes on how the descriptive and reflective notes aligned with culturally relevant pedagogy. An example of the template used can be found in Appendix C.

Brown Bag Luncheons

During the brown bag luncheons, I sat, listened, and took notes as the five participants dialogued about personal and student changes due to implementing what they learned from participating in professional development. Questions did not guide these luncheons, and participants could discuss whatever they wanted. However, I wanted to note any challenges and the positive things they encountered during implementation, individually and cross-case, and note anything said outside what participants answered in the interview questions or observed during classroom observations.

This study took place over one semester (see Appendix G). Throughout this study, I collected data from a questionnaire, semi-structured interviews, classroom observations, and brown lag luncheons. The multiple data sources allowed for triangulation, aligning all types of data collected to see patterns and trends for validity and reliability (Creswell & Poth, 2018).

Qualitative Data Analysis

Data analysis is interrelated with data collection and reporting (Creswell & Poth, 2018). To analyze the qualitative data in this study, I utilized the steps in the data analysis

spiral (Creswell & Poth, 2018), which can be seen in Figure 3.1. Below I describe each step in more detail.

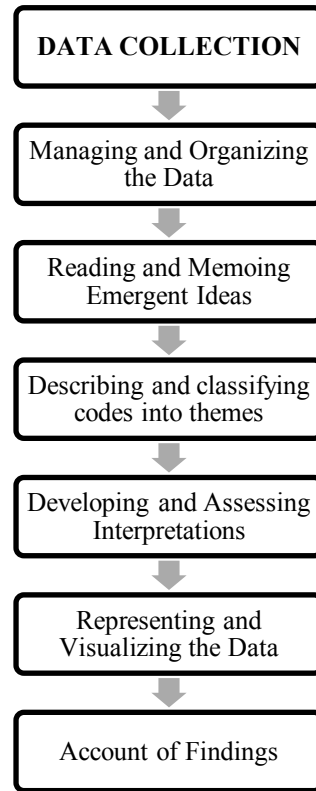


Figure 3.1. Adapted from Creswell and Poth's (2018) Data Analysis Spiral.

Managing and Organizing the Data

Managing and organizing data (Creswell & Poth, 2018) is the first step in the data analysis process. During this stage, hand-written notes from interview questions were labeled, scanned into the computer, and organized by answers to questions from participants. Organizing data helped ensure the saving of hand-written notes and tracing for practical analysis (Creswell, 2018). Next, the data collected is analyzed thoroughly by hand.

Reading and Memoing Emergent Ideas

Reading and memoing are essential in the analysis process because it provides a holistic picture of the data (Creswell & Poth, 2018). As I wrote descriptive notes from observations and answers to the interview from the participants, I then categorized each participant's data by 1) level of knowledge before professional development, 2) change in thinking after professional development, and 3) change in practice after professional development.

Summarizing the records was a vital part of the analysis at this step. Multiple data sources and reflections on the data were analyzed, and notes across participants were made during the reading and memoing phase. As I read the field notes, phrases or abstract ideas that emphasized and derived meaning were noted (Creswell & Poth, 2018).

Describing and Classifying Codes into Themes

The third phase in the data analysis spiral involves describing and classifying codes into themes. During this phase, I moved away from reading to make interpretations of the data (Creswell & Poth, 2018). I employed an inductive process to code the interpretations into themes. Inductive coding also allowed me to break up and sort the data into themes and patterns (Creswell & Poth, 2018). Coding also helped me understand the participants' experiences and perspectives about the culturally relevant professional development impact on their thinking and practice. Eventually, I had a small codebook of codes describing my collected evidence. This "codebook is beneficial for assessing inter-rater reliability" (Creswell & Poth, 2018, p. 190). Several codes emerged from the five individual participant cases.

Developing and Assessing Interpretations

Next, I employed the fourth stage in the data analysis spiral, developing and assessing interpretations. This stage involved relating categories and themes to the theoretical framework and literature (Creswell & Poth, 2018). I first conducted separate within case analysis to explore the impact professional development on cultural responsiveness had on each teachers' practice and thinking. Emerging themes were then identified for each of the participant's cases. Then I conducted a cross-case analysis using the five principles of culturally relevant pedagogy: identity and achievement, equity and excellence, developmental appropriateness, teaching whole child, and student-teacher relationships. The themes revealed were linked to the five principles of Brown-Jeffy and Cooper's theoretical framework to make sense of the patterns and guide the research from the collected data

Representing and Visualizing the Data

The last phase of the data analysis spiral is visualizing and representing data. In this phase of the data analysis spiral I visually presented clarity in themes and patterns prior to professional development and after professional development. Creswell and Poth (2018) discuss this phase as a way to visually compare raw data collected for a study. I took the data I had gathered and analyzed and represented it visually on themes generated prior to professional development and post professional development. I also chose to display the data in this table because it allowed for easier understanding of a large part of collected data. This table also allowed for ease in finding patterns and themes across case. This visual of individual case themes analyzed before and after professional development can be seen in Table 3.3.

Table 3.3

Individual Case Themes Analyzed Before and After Professional Development

Case	Prior Themes	Post Themes
Case 1: Sara (gave her definition of CRT)	<ul style="list-style-type: none"> • Demonstrated implicit bias • Did not demonstrate intentional CRT practices 	<ul style="list-style-type: none"> • Critical awareness—to her belief, culture, experiences • Needed to change mindset • Pulls from students' prior knowledge • Makes cultural connections • gave a choice in learning • Fosters positive connections
Case 2: Lia (gave her definition of CRT)	<ul style="list-style-type: none"> • IB framework was implemented • awareness • intentionality in thinking and planning 	<ul style="list-style-type: none"> • Incorporation of student cultural perspectives • The classroom library incorporated multicultural text (diverse texts) • celebrating student cultures and being open-minded • Connection and engagement
Case 3: Britni (gave her definition of CRT)	<ul style="list-style-type: none"> • Uncomfortable for her to discuss culture • Shy away from it • She was going to teach the intended curriculum with the intended textbooks • Not effortless • Avoided controversy or discussion • Implicit bias-unaware of the impact it had on her and her students • Unintentional with her practices • Made some connections by building on prior knowledge • Figured students would either learn or wouldn't 	<ul style="list-style-type: none"> • Change in mindset - it is not an additional thing teachers have to do • Critical consciousness • Used students' funds of knowledge intentionally posing questions and planning assignments • Used student prior and past learning and knowledge • Builds positive relationships with students • Incorporating home language • Reading literature and comparing it to students current lives and things happening around the world • Connecting learning to students' cultures
Case 4: Kasie (gave her definition of CRT)	<ul style="list-style-type: none"> • Held implicit bias • Knew it was essential to use students' culture but did not • She got to know her students because that is what she was taught in teacher ed. classes 	<ul style="list-style-type: none"> • Awareness of implicit bias • Reflection and continued CRT dialogue • Providing equal access to content • Connecting and incorporating student cultures and backgrounds • Fostering real-world applications • Building meaningful relationships with students
Case 5: Ali (gave no definition)	<ul style="list-style-type: none"> • Always had student success at the forefront of instruction • Thinking and practice were not intentionally inclusive or culturally responsive 	<ul style="list-style-type: none"> • Gain cultural consciousness • Building meaningful and positive relationships • Incorporation of culture • Equal access to learning • Cultural identities validated

Trustworthiness and Validity

Data analysis must be approached and assessed critically (Bergin, 2018). A study's findings must be valid not to impede the accuracy of the study's results. Creswell and Poth (2018) discusses eight strategies for ensuring the validity of qualitative research, including member checking, prolonged engagement or observation in the field, collaborating with participants, enabling external audits, generating a thick, detailed description, peer review or debriefing of the data, triangulation, and clarifying researcher bias. The validity and reliability of data in a research study help to improve the study's credibility. I utilized triangulation, thick and rich description, prolonged engagement, and member checking in this study to ensure validity.

The first strategy I employed was data triangulation. Bergin (2018, p.29) states that "triangulation is the application of different data analysis methods, different data sets, or different researchers' perspectives to examine the same research question or theme". In this study, triangulation occurred through multiple participants and types of data. There were five participants and four types of data, a questionnaire, an interview, classroom observations, and brown bag luncheons. These various data collection methods enhanced the study's validity and reliability.

The second strategy I utilized was providing a thick, rich description of data from one interview and questionnaire, two observations, and dialogue during brown bag ongoing professional development luncheons. I first gathered background information on all my participants to provide background and relevance to the study. I used participants' voices in writing up results, captured and described as much of their understanding and experiences as possible. Then I compared the data to aid in the confirmation of the results of the study.

The third strategy I employed was prolonged engagement to increase validity. As I spent ongoing time in the participants' environment, I gained a better understanding of their thinking and changes in their behaviors. This extended period also allowed participants to begin to trust me. Being embedded in the participants' school all day for a lengthy period also allowed me to collect more data instead of scheduling the time and going back and forth to participants' locations.

Lastly, I utilized member checking. Member checking was essential in ensuring data and reliability, as it allowed me to ensure that I did not misrepresent participant's data (Creswell & Poth, 2018). Member checking was conducted after the observations to debrief participants and ensure the data collected and interpretations accurately reflected the participants' intention. I prepared the data from the questionnaire, interview, notes from classroom observations, and notes from brown bag luncheons and sent them out to the participants. They had the opportunity to review it and return it to me within one week with any comments or corrections. This process also aided in solidifying that no bias on my part occurred. The four validation strategies, triangulation, thick and rich description, prolonged engagement, and member checking, were conducted to ensure the validity of this study. The implementation of these strategies aided in ensuring success in legitimacy with minimal threats.

Ethical Considerations

It is important to consider any ethical issues that could arise during qualitative research and work to minimize these issues throughout the study (Creswell & Poth, 2018). In June 2020, a district consent form (Appendix B) was submitted and approved. I also submitted a request to the Office of Research Compliance for review and received an

exempt determination. Protecting the participants' anonymity in this study was of utmost importance so no repercussions of any kind with the district or colleagues would transpire. Teachers willingly agreed to participate, and when school started, they filled out a participant consent form (Appendix D). I ensured compliance with current regulatory requirements set forth by Baylor University for the IRB, ensuring every participant's human rights were protected and no danger came to them. To sustain my participants' protection, I sent out a consent form for participation in the study to obtain their signatures to be observed and interviewed. The consent form detailed that their names remain anonymous and assigned pseudonyms.

As the researcher, I worked in the same environment where I collected data. I played many roles. I was a campus administrator which included developing and implementing the culturally responsive professional development, observing participants classroom instruction, and organizer of the brown bag luncheons. During the collection and analysis of data, I worked to be transparent. Tuval-Mashiach (2017, p.143) states that transparency "refers to the researcher's responsibility to disclose what, how and why they what they did, but not what he did not do, or what he did not report". As the researcher, it was my job to be honest with my participants as I conducted the research and unveiled the findings.

I was a participant observer (Creswell & Poth, 2018) in the research study. I was fully engaged with the participants and the research; they knew I was observing and annotating. I avoided falsifying evidence and data and disclosing evidence that could harm a participant and break confidentiality. I ensured that all participant permissions were adequately collected and produced accurate and trustworthy results.

Limitations and Delimitations

This study had several limitations. The first limitation centered on my role as an Assistant Principal at the study site. The dual relationship of evaluator and researcher was a significant limitation. The participants in this study are teachers that I evaluate through the Arkansas teacher support system. This relationship could cause bias on the participant's part because I am their supervisor. Questions regarding implicit bias and observations not aligned with culturally responsive practices could cause the participants, especially within the interviews sway their views to that they are not looked at in a bad light. The second limitation was that I only collected reflection data from participants after professional development. Although I asked participants to reflect on their behaviors and thoughts before and after professional development, data was only collected after professional development for participants. A third limitation was the impact of the COVID-19 pandemic on the data collection process. The uncertainty of traditional face-to-face classes was high. Teacher practices and knowledge gained throughout professional development were not explicitly taught to be transferrable to any learning platform. Virtual learning has complications to overcome without applying new instructional strategies. School closures and quarantines also affected the in-class dynamics of implementation and caused varying levels of culturally responsive demonstration and growth with students.

Delimitations are choices that I made to limit the scope of my study purposefully. For this study, the first delimitation was the place of the study. The study took place in a town that I lived and worked in. Another delimitation was that the study was conducted with five teachers from one middle school. I made this choice because I would be able to easily access the participants. I worked at Hasborough Middle School and I knew that I

could access the participants with ease as compared to if they were located elsewhere. A third delimitations was the time frame of the study. The study was bounded by a ten-month window for collecting data from August 2020 to the Spring of 2021. The final delimitation was choosing to do a qualitative multiple case study and including semi structured interviews and observations into my study.

Conclusion

Many teachers struggle to see beyond their cultural experiences and the White dominated culture taught in present day classrooms and have minimal training to effectively teach a diverse student population. This chapter discussed the researcher's perspective, research design, site selection, participants and sampling, data collection, analysis and validation, ethical considerations, limitations, and delimitations of this culturally responsive-centered professional development in the middle school classroom. The theoretical framework that guided this study was Brown-Jeffy and Cooper's (2011) five principles of culturally relevant pedagogy. As stated earlier, Brown-Jeffy and Coopers' principles of culturally relevant pedagogy framework illustrate a model for addressing current teacher thinking and practice as well as impacting change in teacher thinking and practice by allowing for the consideration of the intersectionality of race and learning during the instruction of content. This study was a multiple-case study that detailed five individual cases and then conducted a cross-case analysis generating emerging themes. Hasborough Middle School was purposefully selected because of the student-teacher demographics and because I was employed there. The five participants taught different subjects and had never engaged in professional development constructed around culturally responsive teaching. Data collection included a questionnaire and

interview with each participant, two classroom observations for each participant, and three brown bag luncheons. Data was analyzed using the data analysis spiral (Creswell & Poth, 2018), and validated through triangulation, providing thick, rich descriptions from the questionnaire, interviews, observations and luncheons, prolonged engagement, and member checking. Finally addressed in this chapter were limitations and delimitations of my role as principal and any ethical considerations in my role as researcher and assistant principal of Hasborough Middle School. The next chapter will discuss the results and implications of this study. Chapter Four will also describe each of the five cases in detail, cross case analysis and emerging themes.

CHAPTER FOUR

Results and Implications

Introduction

This qualitative multiple-case study examined how involvement in professional development, centered on culturally responsive teaching, influenced teachers' thinking and practice. The study answered the research question: How does participation in professional development focused on culturally responsive teaching influence teacher thinking and practice in the classroom?

Table 4.1 visually represents the participant information previously presented in Chapter Three. For this study, the participants and school setting were given pseudonyms.

Table 4.1

Teacher Participant Demographics

Participant Names	Grade	Age	Sex	Ethnicity	Race	Highest Degree	Years in Education
Sara Winton	7 th	41	Female	Caucasian	White	Masters	18 years
Lia Nathans	7 th	35	Female	Caucasian	White	Masters	10 years
Britni Goth	9 th	30	Female	African American	Black	Masters	2.5 years
Kasie Bins	7 th & 8 th	39	Female	African American	Black	Masters	14 years
Ali Smith	8 th	43	Female	Caucasian	White	Bachelors	4 years

In this chapter, I describe the within case analysis for each of the five cases. Then I describe the themes that emerged from cross-case analysis framework analysis, seen in

Figure 4.1. I then discuss the findings and implications of the study. Finally, this chapter concludes with suggestions for future research.

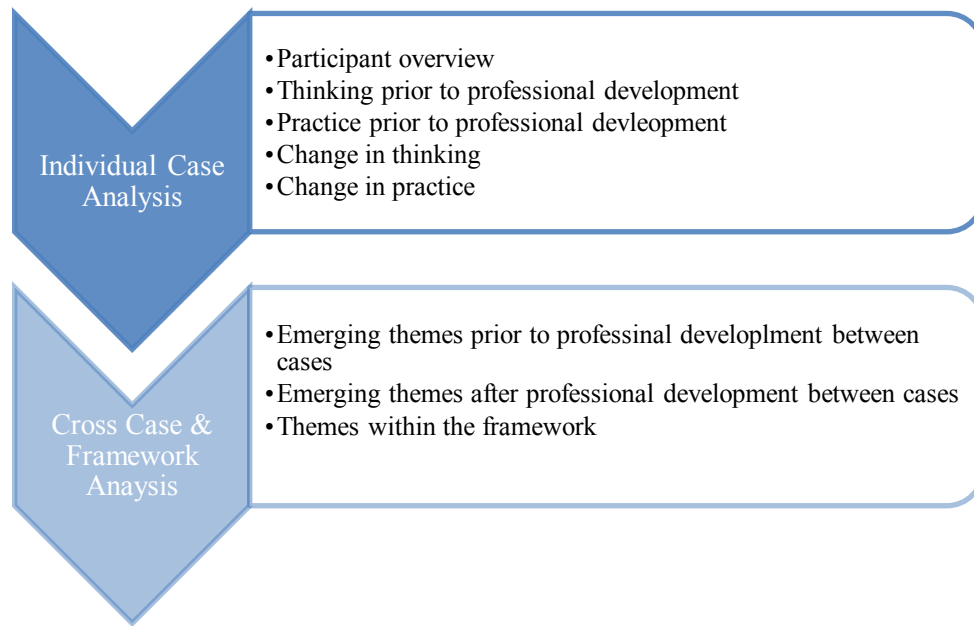


Figure 4.1. Data analysis phases.

Within-Case Analysis

With a multiple case study, several cases are examined to illustrate the issue under study—in this case, the influence of professional development centered on cultural responsiveness on teacher thinking and practice (Creswell & Poth, 2018). This study involved five participants, each representing a separate case. Each participant participated in professional development centered on culturally relevant pedagogy in August 2020 and in ongoing professional development and dialogue during the Fall 2020 semester. In the following section, I provide the results from the within case analysis of each of the five participants. Each within case analysis is structured by first providing an introduction of the participant, then a description of the participant’s thinking and practice prior to

professional development, and finally, the changes in the participant's thinking and practices after participating in the professional development.

Case 1: Participant Sara Winton

Sara Winton is a 41-year-old, White female from England, Arkansas, who began her teaching career in secondary education eighteen years ago. After a few years, she decided to move to elementary education and began teaching 5th-grade math. In August 2017, she moved back to secondary education and became a seventh-grade math teacher at Hasborough Middle School. As a highly qualified teacher, Sara holds a bachelor's in education and a master's degree in educational leadership. In her teaching career, the diversity in student demographics has varied at the various schools she has taught. However, the students Sara currently teaches at Hasborough Middle School are the most culturally diverse group she has taught.

Thinking prior to professional development. Sara openly discussed her understanding of CRP and her implicit bias prior to participation in professional development. When asked about her thinking she stated,

CRT is an all-encompassing set of behaviors, not just one action a teacher performs. CRT considers the cultures and backgrounds of students and makes connections to the content. A culturally responsive classroom engages students and builds classroom culture.

Sara clarified that she had not championed training for herself or her colleagues but sees the importance and relevance of CRT with increased diversity in present-day classrooms. She reflected on her implicit bias and stated, "I had low expectations of my students because of prior academic failures, and I assumed they could not meet proficiency on current benchmarks, which made me have low expectations for them and of them." She

expressed that her unconscious beliefs limited the academic ability of her students and made assumptions without giving students a chance to demonstrate their learning.

Practice before professional development. When asked what culturally responsive practices she exhibited prior to professional development, Sara openly stated,

My practices were based on what I learned in my teacher education program. Teach, assess, collect data and intervene or extend, then start the process again. The focus was never on maximizing opportunities for cultural responsiveness or implementing culturally responsive practices.

Ms. Winton expressed that if she had intentionally used the little knowledge, she held with CRT, connecting students' culture and background to the content might have had a substantial impact on student achievement.

Change in thinking. Sara spoke about her critical awareness and recognition of implicit bias have reformed due to participating in culturally responsive professional development. When asked about her change in thinking Sara stated,

Understanding that I did not have to plan or create a lesson but allow students to express and empower themselves while being the facilitator of student-to-student learning on topics relating to cultures, injustices, and beliefs was eye-opening. Critical awareness was crucial to my awareness as well as students' awareness. Gaining this understanding was significant in our productivity as citizens in a diverse society.

Sara understood the importance of critical awareness and its significance in student learning. However, the ability to teach students the essential concept of awareness would be a continued challenge.

After participating in the professional development, Sara realized that she exhibited implicit bias, and her increased awareness of her bias was evident during my

interview with her. When asked if she ever showed implicit bias, she immediately said no and changed her answer to yes after second-guessing herself. With hesitancy, she said,

My thinking comes out unconsciously in action with my expectations. When I think a student won't do a particular task because they can't understand x, y, and z, it does a disservice to the student and myself. I do not give the student the chance to show what they know or what stage they are at in their thinking, and the student does not get taught grade-level standards, and I must take extra time, which is already limited, to reteach.

Sara expanded her thinking with an example. She stated if the grade level objective for seventh-grade math is for students to master multiplying and dividing rational numbers, the prerequisite skill students must possess is an understanding of multiplying and dividing fractions. She knew which students struggled with the prerequisite skill, and instead of teaching everyone the grade-level standard, she lowered the expectation for those students so they could grasp that concept first before moving on. Sara spoke on how her bias limited the rigor and work of her special education students,

When I sit back and reflect, I notice that what I believe and have seen in the past or experienced plays a major role in my behaviors. For example, I have seen special education students as severely deficient academically, which is not always true. Special education students can have emotional and behavior issues academically at grade level or above.

Ms. Winton's bias was not of ill will. Still, she knew that her special education students were at a disadvantage, and her mindset played out in her behaviors with the modification of content rather than the equitable accommodation of content.

Change in practice. Sara's semi-structured interview and one unscheduled 45-minute classroom observation detailed the changes in her practices. Sara indicated that she now intentionally pulls from students' prior knowledge and experiences when instructing and planning activities for her lessons. She stated, "Using prior knowledge

engages my students and allows me to establish better relationships with them.” During the classroom observation, Ms. Winton utilized a KWL graphic organizer with her students. The acronym KWL stands for what students already know, what they want to learn, and what they have learned during the lesson. KWL is student-centered and allows for engagement, benefiting the teacher while guiding instruction and student learning. Her math lesson centered on reflecting a geometric shape on a quadrant grid is another example of activation of prior knowledge.

As the students read the problem, many of them struggled with reflection. As I surveyed students’ work, I saw students replicating the shape but not reflecting the shape. Sara tried to work on another example. More students caught on, but most were still struggling with the concept of reflection. Sara stopped the class and asked them what they thought when they looked in the mirror and what their observations were. Students answered by saying themselves. Then, she asked them to be more specific and tell her what they saw. They responded with answers like themselves, their bodies, and their face. Sara asked, “Does anyone see the back of their head when they look in the mirror?” Students gave strange looks and began to laugh and said no. Sara then went on to connect the lesson to their real-world experiences of their reflections in the mirror. She now sees the impact that these experiences have on student engagement.

Making cultural connections to content for students across subject areas was another practice that Ms. Winton began to implement. Sara collaborated with her grade-level colleagues aligning the novels students read in literacy within her math classroom and created activities aligned to state standards. Louis Sachar’s *Holes* is a text that Ms. Winton utilized to support foundational skills of coordinate planes. The students read the

book in their literacy class, and when they arrived at Ms. Winton's class, they were provided with a detailed synopsis of how the book's theme relates to them and their learning. Sara's involvement in professional development aided in her realization that it is essential to incorporate her students' cultures into the content and not just the dominant culture. Asked if she thought that her participation in culturally responsive professional development had affected her students' success and achievement, Sara stated,

My students started understanding the content better and were more engaged with the lesson when I used some strategies I learned. They were more successful when I made my students the center of the learning by incorporating something they like to do, who they are culturally, or using my resources to help meet their specific needs. They began to learn from each other and learn about each other.

Sara discussed that using word walls, translation programs for English Language Learners, and incorporating families into the classroom positively affected students' achievement and success. Ellevation is an online program that provides equitable access to the educational demands of English language learners (Cavanagh, 2016). Sara used this program with her ELL students to gain strategies that helped connect her ELLs to the content and increased their overall achievement.

During the observation I conducted in Sara's classroom, there were instances where student motivation and engagement were at an all-time high and moments where student motivation was not evident. For example, during one class period, students had a chance to create their own math questions. Student choice in the learning process empowered the students to develop their own personal and cultural questions. Still, it was a method of engagement and connection to the content. I heard students incorporating video games, sports, television shows, and music, all things they were interested in, which motivated them to get their classwork done and aided in their learning process.

Although Sara did engage students through this activity, she struggled to get all students engaged during the direct instruction portion of her lesson. A few of Sara's students took notes, some just looked at Sara while she was teaching, and one of her students was asleep.

Fostering intentional positive connections with her students was another practice that Sara implemented in her classroom. I observed Sara greeting her students at the door and having small conversations about things students were doing outside the classroom. For example, as she greeted one of her students at the door, she said, "Good morning, Raymond. I saw you score eighteen points in the game last night. Great job!" There was also time set aside to build positive relationships with each other at the beginning of class to talk about any good things they wanted to share with their peers. Sara stated,

After professional development, I became reflective and conversed with the other participants. I made a conscious effort to become more intentional with utilizing cultural responsiveness in the classroom for myself and students to learn about each other and the world around us.

The camaraderie that ignited from students sharing their experiences helped students learn more about each other. Additional culturally responsive strategies and practices I observed in Sara's class included calling the students by their chosen nicknames, asking students to explain their thinking instead of telling them the answer they came up with is wrong and praising them for being risk-takers and participating. Not only did Sara build relational capacity with her students, but with her participant cohort, she stated,

I began to feel a close bond with my peers, I felt like we all learned knowledge that opened our eyes to not only our student's cultures, but to each other's cultures, values and identities the luncheons allowed me to learn and understand other teachers' struggles and it was a good feeling to know that I was not the only one experiencing them.

For Sara, the collaborative brown bag luncheons brought the participants closer together, discussing the good things happening in the classroom and what could be better as a team.

Overall, Sara noticed that awareness of her beliefs, culture, and experiences had made her who she is and is the foundation of her mindset and perception. This awareness aids Sara's guidance in the classroom in her role as a change agent for her students.

Changing years of the same habits in the classroom was not an easy transition for Sara. She admitted,

Cultural responsiveness was not easy for me to implement, with years of teaching experience under my belt but never intentionally or consistently using what the students brought to the table to form instruction and aid their learning posed many thoughts of inadequacy.

She continues to make strides in helping her students with critical awareness so they can analyze and recognize situations they encounter inside and outside of the classroom to increase their achievement and success. The significant change in her practice was the intentionality regarding optimizing students' prior knowledge, experiences, culture, and opportunities to build meaningful relationships. Sara said, "Within a short period, I have seen the impact CRT has made in my classroom and how students have become more engaged." Sara believes that continued professional development and fidelity to implementing CRT will impact the quality of instruction that students of color receive and create meaningful connections and experiences for increased academic achievement.

Case 2: Participant Lia Nathans

Ms. Lia Nathans, 35 years old, is a White female who taught in both an elementary and secondary setting for the last thirteen years. She is a team player and a

lifelong learner, continuing to personally enroll in many professional development opportunities through her city's local educational cooperative. During her teaching career, Lia taught in three different school districts. Ms. Nathans was consistently graded proficient through Arkansas's teacher evaluation system and demonstrated a focus on student success and achievement. Lia holds a Bachelor's degree in education and a Masters of Arts in teaching. Lia is an International Baccalaureate (IB) teacher and teaches 7th graders in the Middle Years Programme (MYP). Lia's first time participating in professional development focused solely on culturally responsive teaching was through this study. Lia's responses to the pre-professional development questionnaire revealed that she was more knowledgeable about culturally responsive pedagogy than the other participants before the professional development. This knowledge might be attributed to her IB knowledge and training. Lia's participation in this study, however, did prompt changes in her thinking and practices regarding conscious intentionality.

Thinking before professional development. When asked about her knowledge of culturally responsive teaching prior to professional development, Lia stated, "Through culturally responsive teaching, teachers are intentionally aware and responsive to the cultural backgrounds of their students. They understand that these backgrounds shape each student's perspective and thus their learning." Lia and her students used the IB middle years program framework in her classroom to think about how different people and events affect the world around them. Her thinking was based on this framework, and she facilitated the students' learning from the framework as well.

Practice prior to professional development. When asked what prior culturally responsive strategies and techniques she incorporated into her instruction and classroom, Lia stated,

Training and experience as an International Baccalaureate (IB) teacher provided me with strategies for incorporating students' cultures into the content and discussions within the classroom. The IB program helps students understand different cultures and explore and construct personal and cultural identities.

Using strategies aligned with IB was an added tool Lia had in her tool belt to build a more inclusive and equitable classroom. In addition, she understood the importance of culture in learning and student identity.

Change in thinking. When asked about her change in thinking, Lia unveiled there was a shift in the intentionality of her thinking.

I do not feel that my thinking changed based on professional development. Instead, I think my foundation as an educator is rooted in the philosophies of the IB program, which centers itself upon being culturally responsive. However, I do think I need to be more intentional in the awareness of situations that allow me the opportunity to seamlessly incorporate culture in the classroom as a daily occurrence.

After professional development, Lia realized that she was aware of the importance of culturally responsive teaching. Intentionality in terms of standing up for and implementing what she had already believed—using students' funds of knowledge in learning content and fostering collaboration and student discussions in the classroom was vital.

Change in practice. Lia openly discussed changes in her teaching practice after participating in professional development. Utilizing diverse texts, incorporating students' cultures into daily learning, fostering respectful talk, and creating connection and

engagement were changes in practice evident in Lia's interview and classroom observations. Ms. Nathans specified during the interview that "removing systemic barriers for students and bringing their cultures and beliefs to the forefront of learning has a greater impact on student achievement."

Lia's classroom library was composed of books that included characters with diverse backgrounds and experiences. She utilized various texts as a way for marginalized students, who may not have had as many or the same type of experiences as the dominant culture, to be able to connect to content. Lia's use of these diverse texts helped her to align content to her students' experiences and needs to increase students' connectedness and engagement with the curriculum.

During our interview, Lia spoke about incorporating her students' cultures into daily learning. She stated,

I do not force myself to incorporate cultures into the classroom instruction daily, as that is not always applicable. However, since my participation in professional development, I am getting more familiar with the culturally specific needs of my students to support them better.

Lia believed when students' cultures are explored and celebrated, students become more open-minded, and teachers can better align instruction and content to increase achievement. Ms. Nathan did begin to foster cultural responsiveness in the classroom. However, there were opportunities missed. In my observation of Ms. Nathans, a student asked why they needed to know what they were learning. Instead of seizing the opportunity to communicate with the student how learning the content applied to a real-life situation, Ms. Nathans said, "Because you need it for the test." Knowing it for the test is true, but communicating it in a way that engages the student could be a more

productive learning experience. The intentionality she knew she needed to have at this moment was not evident.

During her interview, Lia spoke about fostering respectful talk at all times in the classroom, which was evident during my observation. As different discussions unfolded in the classroom during my observation, I noticed that they were orderly, and everyone had a chance to speak. No student put down anyone else. Lia was prepared for classroom discussions by having what she called a social contract in place. The contracts listed behaviors of how students want to be treated by the teacher, how students want to treat the teacher, how they want to treat each other, and how they should treat each other when there is conflict. Everyone had a voice, and their opinions were valued. These social contracts were the centerpiece of the classroom's culture.

The first observation in Ms. Nathan's class was for 45 min. I observed several things during this time which are detailed below. First, I observed connection and engagement in the lesson with the students. The class was reading the book *Fever*. The book is about a fever that breaks out, and sickness is everywhere. Students made a real connection to the character Mattie in the book and their lives because of COVID-19. In my second observation, students were reading excerpts from the book *The Hate You Give*. This book is about a girl who sees her friend get shot by the police. It addresses racial tensions between the police and communities. Students were highly engaged when discussing this topic because many real-life experiences played out in their communities this year. Due to the social seriousness of this topic and real-life connection, I witnessed many students expressing their perspectives. Both observations happened to be during the discussion of relevant issues. These topics affected each student in the classroom in

different ways. Some were emotional because of losing loved ones, and others were affected first-hand. Connecting learning to students' real lives allowed them to share their experiences. It also allowed for students' engagement through the creation of meaning and, in turn, increased their achievement.

Of the five participants in this study, Lia had the most background in culturally responsive teaching, although she did not specifically think or plan alignment to culturally relevant pedagogy. Participation in the culturally responsive professional development helped Lia to learn new things, formalize her understanding of culturally relevant practices, and use her IB instructional practices as a foundation for incorporating diverse literature into the classroom, connecting students' experiences to content, and promoting respectful talk. Lia continues implementing culturally responsive practices and meets with her professional development cohort throughout the year. She stated, "intentionality with a group of 28 students is harder than it looks, the flow of the classroom is different daily, so planning specific culturally responsive practices and anticipating student answers is not realistic." The ability to generalize practices to connect students' cultures and content stems from constant awareness and knowledge of students. During those times, Lia seized the opportunity to provide a meaningful framework for student learning which was essential to their achievement.

Case 3: Participant Britni Goth

Britni Goth is 30 years old and is the youngest of the participants in this study. She has been in education for two and a half years, fewer years than any other participant. Ms. Goth holds a Bachelors and Masters Degree in Teaching. Britni is single and does not have any children of her own. She dedicates most of her time to her students and

coaches basketball and volleyball for Hasborough Middle School. She is an African American female whose first participation in any culturally relevant professional development was through this study. Hasborough Middle School is the second school in the district where Britni has been employed as a teacher. She previously taught fourth and sixth grade. At the time of the study, Britni was teaching ninth-grade English language arts at Hasborough Middle School.

Thinking prior to professional development. Britni discussed her understanding of culturally responsive teaching and its importance before professional development, saying:

I know that it is essential that all cultures are represented in the learning environment, and the same level of respect and voice should be given to all represented. However, I do not know how to make sure all cultures are represented effortlessly. It always seems like when a topic is brought up that is a bit uncomfortable for me to discuss, I shy away from it or redirect students into thinking in a different manner. I notice that I choose topics or direct conversations strategically to avoid the unknown.

Britni believed that cultures played a part in learning and that all cultures should be voiced and celebrated, but she shared that she shied away when the culture was not hers, or it was a culture that was unfamiliar. Her implicit bias deterred many needed conversations in the classroom from adding value to students' horizons as they learn and look at the world. Before professional development, Ms. Goth was unaware of the impact her implicit bias had on her students and herself.

Practice prior to professional development. Before professional development, Britni discussed using a couple of culturally responsive practices, but the practice was not intentional, nor could it be pinpointed explicitly to cultural responsiveness. Britini

explained, “Before training, when I would teach, I would build on the knowledge that students already had to teach new concepts.” Building on students’ prior knowledge was Britni’s way of engaging with her students and making connections. “I feel it always necessary to make connections when students are learning to give them perspective and aid in personal understanding.” This was a culturally responsive practice, even though she was unaware of it. Britni spoke about her lesson preparation before professional development. She stated, “Before professional development, I never spent time to intentionally connect and draw in all of my students, I figured either they would understand the content or they won’t.” Again, Britni was unaware of the impact of culturally responsive instruction.

Change in thinking. When I asked Britni about her thinking after participating in the professional development, she spoke about changing her mindset. “There must be a mindset change in thinking, right now, it feels as though culturally responsive teaching is an additional thing that we as educators have to do in the classroom.” As the interview continued, Ms. Goth spoke about critical consciousness. She stated,

I am more aware of the bias that can be created, and I am more intentional about what I do and how I do it to avoid my bias toward one group or another. I also take time to evaluate situations better before passing judgment or making decisions. At times I feel I may still display bias from time to time but overall, I feel as the training has made me less biased and more aware.

Ms. Goth knew her students and how they learned, and she used this knowledge as she posed questions and structured assignments for her students. However, as Britni talked with her colleagues during brown bag luncheons, she realized that sometimes knowing her students may cause her unhealthy bias. Her knowledge of her students’ past learning and achievements hindered their success because she would over-accommodate when she

believed they could not master the teaching. Participating in the professional development encouraged her to understand her implicit bias, allowing her to think more carefully about modifying her teaching practice to create access and equity for all students.

Change in practices. Participation in professional development helped Ms. Goth change her instructional practices. During her post-interview, Ms. Goth provided examples of these changes and how she began incorporating other cultures into her classroom. In addition, Ms. Goth described changes in her teaching practice, including how she plans lessons, connects to students' cultures, builds positive relationships with students and staff, and fosters equity in her classroom. I described each of these changes in more detail below.

After professional development, when she planned her lessons, Britni intentionally began to draw in her students and connect the content to familiar things. Britni stated, "With my students, I realize when I connect the content to something they have experienced or is familiar to them, their engagement level increases, and they are more successful in learning the content." To be more successful in the overall educational trajectory of students, Ms. Goth said, "I need additional training to continue to develop us into a group that is more aware of the bias decisions, and incorporation of various cultures and the effect it has on our students and one another." The need for continuous learning was prominent for Britni because sustaining this change would not happen from one professional development and three brown bag luncheons.

In connecting to students' cultures, Ms. Goth described incorporating students' home language into learning by using Spanish instead of English words to better connect

with her English language learners. I observed this practice in her classroom as she labeled different items with Spanish words, including the clock, pencil sharpener, classroom door, smart board, and her classroom library. She also included a diversity of cultures during her literacy and social studies instruction. For example, Ms. Goth assigned her students to compose an argumentative essay using the TOSEEC model, arguing for or against their chosen topic. The topic students could have chosen were the effect rap music has on teens or to be for or against cancel culture. Students were also encouraged to submit music they liked listening to for the classroom playlist played during the day as they entered the classroom, had downtime, or worked independently.

During one of my observations in Ms. Goth's classroom, I listened to a discussion on the book that the students were reading titled *Code Talkers*. This book discussed using the Navajo language as a military code because it provided a fast and secure line of communication by telephone and radio during World War II to transmit codes under extreme conditions. This code eventually helped win the war. Some of the students engaged in the class discussion fully, and for those who were not interested, Ms. Goth engaged them by asking the class to think about their own lives and how what the code talkers did and created during World War II was relevant to them. Students started talking about sports, plays, siblings, hiding stuff from parents and telling stories but not wanting people around to know what you are talking about. Ms. Goth took content and learning and made it relevant to students and their personal lives.

Participation in this study impacted Britni's relationships with her students and colleagues. Regarding her students, Britni stated,

Much of what was discussed during professional development I kept associating back to experiences with my students in class, it is difficult to relate to content

when you have never been exposed to some of it. Teaching content as it is in textbooks can really hinder learning, academic and social relationships, and overall student success.

Ms. Goth said that she has seen students and teachers get frustrated when learning is not taking place. Connection is vital to the success of students and their achievement.

As I observed Ms. Goth, she greeted students at the classroom door with greetings unique to their style while the student-designed playlist was playing. The greetings were personalized handshakes, gestures, or sayings. She also built relationships with students by getting to know them through something called “good things” day. On this day, I observed Britni asking students to tell her one good thing that happened to them over the past week. Getting to know students and letting them share their stories is essential to making them feel valued. Ms. Goth built relationships with students through celebrations. Even though she had a Christmas tree in her classroom because she celebrated Christmas, she also had other symbols representing how her students did not observe a traditional American Christmas. Ms. Goth displayed symbols such as a menorah and Kwanza candles, representing her students’ diverse cultures and ways of celebrating the holidays. Students who celebrated another holiday besides Christmas could talk about how their family celebrates holidays and even bring in their family to speak on how they celebrate the holidays. Discussions like this allowed students to be open-minded and see how different people celebrated other holidays. Her involvement in culturally responsive professional development and continued lunch discussions with other participants allowed Ms. Goth to self-evaluate her teaching practices and encouraged her to be more open-minded, tolerant, and inclusive. Regarding peer relationships and dialogue Ms. Goth said,

I think there are still barriers personally for me to undo about previous experiences and biases that may have been formed. I realize this is one reason I may struggle to establish relationships with some of my peers. However, I think the relationships that I have been able to form with peers are with those like me that have genuinely opened themselves up and let their guards/ biased opinions about my culture down. In return, I have as well, and we have formed a bond. The ability to be tolerant is a significant characteristic to possess.

When Ms. Goth began to examine her own biases, she understood that other cultures were as essential and benefitted her classroom. Cultural tolerance, the ability to be open to different cultures, was critical for student learning and producing productive citizens.

It was evident in Ms. Goth's classroom that she had an equitable student environment. During my observations, Britni ensured that all students had the opportunity to have a voice and that their questions were answered. She walked around while students were working in shoulder partners and facilitated, responded to questions, and gave students immediate feedback. In another observation, I observed as Ms. Goth waited until a student translated the question for the non-English speaker so he could know what was being asked and have a chance to answer. Although, Ms. Goth's practice changed after participating in professional development, she has more work to do to ensure all students are represented in her classroom literature, examples, and stories.

Ms. Goth played an active role in the teacher's brown bag luncheons. However, she knew the need for ongoing professional development to rethink traditional teaching practices and implement cultural responsiveness in the classroom daily.

Case 4: Participant Kasie Bins

Kasie Bins is a 39-year-old African American female. She has taught in Hasborough School District for the last 14 years. Out of the five participants, she was the second most experienced teacher. Kasie taught at the Kindergarten level for 11 years

before moving to 7th and 8th Grade Social Studies. With her Master's degree in teaching, Kasie also held her Masters in Educational Leadership and obtained her administrative licensure. Kasie incorporated many of the elementary strategies she implemented in her Kindergarten classroom at Hasborough Middle School. Many middle school teachers liked to visit her classroom to observe her instructional strategies because her students were constantly engaged and motivated. She also incorporated techniques that helped build relationships with her students and aided in her classroom management. Kasie had not participated in a focused professional development dedicated to culturally responsive teaching in her teaching career, and participating in this study was her first opportunity. Participation in the culturally relevant professional development experience influenced Kasie's thinking by helping her uncover her implicit bias and change her instructional practices in the classroom as she worked to validate students' cultures and identities during learning.

Thinking prior to professional development. Before Kasie participated in professional development, she explained what she thought culturally responsive thinking was. Kasie wrote, "I know it is about more than color or race. I know that every educator needs to be culturally responsive to the students in the classroom." When interviewed, I asked Kasie to expand on what she meant by the phrase "culturally responsive to students" she explained, "Knowing students' culture and the ability to accept and respond to them." Though she may not have known the true definition of cultural responsiveness, she held a baseline understanding that encompassed getting to know her students and their cultures. Kasie also held implicit bias regarding her students' abilities prior to

professional development. The explicit behaviors and practices manifested from Kasie's implicit bias are discussed in the section below.

Practice prior to professional development. During Kasie's interview, she explained how she creates independent activities for her students as well as how she pairs students for group activities. She stated, "When I create independent work for students, I differentiate because some students will not be able to master the learning target." Kasie grouped her students based on their prior academic performance. When planning an activity for a lesson, "I would think about which students struggled on preceding standards and which students excelled, and I would automatically think that is how they are going to perform in the current lesson." This thinking would cause Kasie to lower her students' academic expectations and her rigor in instruction by not teaching grade-level standards.

Change in thinking. Kasie's awareness of her implicit bias arose from professional development participation. She stated,

I realized I held implicit bias when it came to thinking about her students and their abilities. I did not purposefully want them to feel any different or less than any other student in the classroom. I just think we all have some type of implicit bias, it is hard not to. I know sometimes I group or stereotype people because of what I have seen from others or heard growing up.

Her culture and background provided her with experiences and a mindset that affected her thinking and teaching. Kasie was very structured in her learning. Her learning progression was based on mastering one concept before moving on to the next. This process of mastering targets, she believed, was the same for everyone. Without the opportunity to master grade-level concepts, the disparity in the achievement gap will

never close, so it was vital to ensure all students had a viable and guaranteed curriculum. Reflection and continuing dialogue with her cohort was a significant discovery from participation in professional development for Kasie.

Change in practice. Kasie spoke about changes in her teaching practices due to professional development. These changes included providing students equal access to content, connecting content by incorporating students' cultures and backgrounds into the learning process, fostering real-world applications, and building meaningful relationships with students. Kasie began to provide her students equal access to content and instruction after participating in professional development. For example, Hasborough Middle School was a 1:1 technology campus, but Kasie knew some students did not have internet in their homes. Therefore, Kasie championed for the district to use special funding available due to COVID-19 to find to provide students with access to the internet and computers. In addition, she suggested the district provide another Chromebook to students for at-home use and a Wi-Fi hotspot. In another example of providing equitable access, Ms. Bins worked with her English language learners (ELLs) to show them how to utilize Google Translate to translate course material and engage with the content in their native language. Although Ms. Bins had used bilingual dictionaries previously, she incorporated the google translate resources after attending professional development. Finally, Ms. Bins recognized her students' cultural and learning differences. As a result, they worked to make their learning environments equitable by meeting each student where they were and teaching their learning styles to maximize understanding and engagement.

After participating in culturally responsive professional development, Ms. Bins became more intentional with helping her students make connections between the

curriculum and real-world experiences. She seized opportunities to bring events from the past to the present day to foster critical thinking and connect learning to students' current experiences. In one lesson I observed, Kasie taught about the Civil Rights Movement. After the lesson, she asked the students, "If Martin Luther King was still alive today, how would he feel about the state of our society, and what would he say? Has his 'dream' come true?" Students became vocal and began to talk about their backgrounds and families. Ms. Bins' intentionality in relating content to students' backgrounds sparked motivation and engagement with her students. She said she now takes advantage of the district's ELL facilitator and implores guest speakers representing students' cultures in her classroom. During a brown bag luncheon, Kasie told her peers about her experience bringing in a guest speaker, she stated,

I brought in a guest speaker who discussed a little about his tumultuous background and how he became a policeman. One of the students that had a behavioral challenge made a connection with the speaker, whom I so knew personally, and he kept in contact with this student. I won't say it ended his disruptive behavior, but I feel it curbed it and gained an accountability partner.

Guest speakers become assets to student learning, and connections are made when students see themselves as leaders and can look outside the classroom to connect to learning and their lives.

Ms. Bins started using websites that engaged students, like Facebook and Snapchat, for extension activities. She was uneasy using this resource because she thought students would start playing around on social media, but she set strict parameters and expectations. However, Kasie knew that these were sites that students used daily for engagement outside the classroom, and she needed to bring them into the learning for engagement. For example, students designed a Facebook page of a Civil War personality

of their choice. The same formula that students would use if they were creating their own personal Facebook page would be used. If a student, for example, has Robert E. Lee, then the student would need to list his Friends, like Stonewall Jackson and Jefferson Davis. This activity drew motivation and engagement and allowed students to use something familiar to their everyday lives while connecting learning.

Building intentional relationships with her students was another culturally relevant practice Ms. Bins employed. Though she may have greeted her students at the door before, Ms. Bins made an effort to greet her students at the door every class period. Professional development addressed that making a positive connection with students before they entered the classroom helped build rapport. As a result, students were more likely to do what was asked of them. As they sat down, the students began to share their good things, and Kasie asked follow-up questions to let the students know that she was interested in what they had going on in their personal lives. Soliciting students' voices and allowing them to have a platform to speak added value to the classroom and empowered her students. Kasie said participation in professional development had challenged her to interact more with her students and use their skills and knowledge to improve her instructional practice. She noted that when she worked with students, her ability to put herself in their shoes and reflect daily on how she interacted with them was important. I asked Kasie how she incorporates other cultures into the classroom. She stated, "I try to make sure that I ask the opinions of all students and that I have books that promote all types of cultures and traditions." Looking around Ms. Bin's classroom, I saw items labeled in Spanish for her Spanish-speaking students, bridging the home and school community. Though using Spanish in the classroom was a practice for professional

development because IB students take Spanish as an elective, Kasie was still aware of its importance in cultural responsiveness and used it more often. Still, the visuals were also a way to connect students who spoke Spanish to their home language. Kasie utilized student notebooks to incorporate student cultures into the classroom. She allowed students to personalize their notebooks and decorate them with family photos and things that the students valued. Kasie hoped that when they looked at their notebook, the work they did inside would be their best work and effort because it was of value to them.

During her post-professional development interviews, Kasie talked about the importance of understanding the cultural nuances between herself and her students. She reflected on every aspect, from student achievement, relationships, and interactions, incorporating culture and inclusion of perspectives to understand cultural differences. Like the other participants, she stressed the need for continued participation in professional development centered on culturally responsive teaching and having open dialogue to remain open-minded about others' ideals and beliefs.

Case 5: Participant Ali Smith

Ali Smith, 43, is a White female who taught for five years during her early twenties before taking time off to raise her three girls. Her first five years of teaching were in Hawaii, and she was the only teacher in the participant group to teach in another state besides Arkansas. At the time of the study, Ali had been back in the classroom for four years. She taught 8th Grade Science at Hasborough Middle School and coached girls' soccer in 7th–12th grades. Participation in the study was Ali's first time in a structured professional development about culturally responsive teaching.

Thinking and practice prior to professional development. When filling out the pre-professional development questionnaire, Ali answered clearly and honestly when asked about her knowledge before the culturally responsive teaching professional development. She wrote,

I know that might seem horrible, but I do not know anything about it. I could break down the word and analyze it, but it would not be something I have applied or thought about when teaching.

During the study's classroom observations, it was evident that Ali had student success and achievement at the forefront of her instruction, seen in student goal setting, student objectives, and high expectations. However, her practices and thinking were not intentionally inclusive or culturally responsive prior to participating in the professional development.

Changes in thinking. Ali's thinking changed after she participated in professional development. The professional development helped her gain cultural consciousness. She stated, "I need to ensure that my students' experiences and cultures are explored in our learning." Ali's focus strategy was to get to know her students better and use their perspectives and real-life experiences to help them engage with the content. Ali also realized that she had to consider her students' cultures and know her beliefs and identity. When asked how she planned for instruction after participating in the professional development, Ali stated,

I am more aware of making all students feel like they have something of value to bring to the learning. Therefore, I ensure all students can bring their skills and ideas to the classroom activities and discussions. Though it is a daily struggle, I make a concerted effort not to react to students based on my experiences or beliefs because I want them to know that we are a classroom community and their voices should be as valuable as mine.

There were many times that Ali could not empathize with some of the experiences of her students of color. Still, she knew that her awareness of her identity aided her relationships with her students and their achievement. Knowing her beliefs helped in not projecting her ideals onto other people. Her cultural awareness also allowed Kasie to understand and empathize with others' cultures and beliefs. This change in thinking and awareness affected her practices.

Changes in practice. Change in practice was evident for Ali. Ms. Smith's practices transformed by incorporating more student culture into her instruction, increasing her intentionality in building meaningful positive relationships with her students, and ensuring her classroom was equitable.

When asked about learning the practice of incorporating culture in instruction after professional development, Ms. Smith believed other cultures helped students understand one another and the world around them. Ali stated,

I try to get to know my students and provide a safe environment for them to understand each other. Because we all bring our culture to the classroom, the more we relationally work with each other, the more we experience and empathize with others not like us.

During my observations of her classroom, Ms. Smith conducted bell ringers at the beginning of class. These bell ringers had questions that included students' culture, such as student names, things that interested them, perceptions, and places in their community. For example, one bell ringer asked students how teachers would respond to several questions regarding the music students listened to, what things are important to students, and how they think teachers would respond to the same questions. This bell ringer was an excellent way for students and teachers to build relationships and tolerance. Another bell

ringer involved a scientific graph. The bell ringer used a student's name in class and talked about his love for basketball. It listed different velocities of a basketball thrown, and students had to graph them. They needed to find the velocities' mean, median, and mode. With the example above, using students' names gave students a connection and value as a person in the classroom community. When students feel like they are part of something, it makes learning more engaging. For example, during one of the participants' brown bag luncheons, Ali said,

Through this intentionality and sustaining PD, we have built positive relationships as a class. Some of the content has been easy to connect to the students, and some I need to spend more time figuring out how I can, but this has been life-changing for not only myself but our students as well.

It is evident from research that when teachers incorporate culture into their instruction, learning is more meaningful and effective, increasing their chance of proficiency (Gay, 2010; Ladson-Billings, 1994).

Creating meaningful relationships was another practice that Ali deliberately initiated in her classroom. She has noticed that these positive relationships have significantly impacted her students' achievement. Ali stated, "When students feel respected, valued, and loved, I believe they will want to be there more, work harder, engage more, and therefore learn more." After professional development, Ali began to understand her students and genuinely relate to them to find the best practices and strategies to increase their achievement and success. Like the other four participants, Ali Smith greeted her students at the door to create that positive interaction before the start of class, as well as shared good things. In addition, Ali and her students created hand claps to address various students' good things. For example, if a student is saying something good about a sports-related topic, the class does a "boom boom clap," if a student says

something good about a general topic, they rub their hands together five times and snap their fingers three times. Recognizing their peers' good things builds a positive and inclusive classroom culture and fosters positive relationships.

Equal access to learning was a theme that emerged from Ali's interview and in my observations of her teaching. She knew her students learning styles and made sure students were aware of the expectation of mastery by posting visible learning targets and verbally referring to them. Before and during the lesson, Ms. Smith referred to the learning target to help all students understand what learning needed to be mastered by the end of the lesson. She also reviewed with the students how the activity aligned with the learning objective and expectations for mastery. Ms. Smith also had virtual students that logged on to her class through the zoom platform. These students were not given less of an education than the traditional student. Instead, they had the exact expectations of taking notes, working in groups, asking questions, and answering questions.

Ali made a conscious effort to make sure that all students felt validated in their cultural identities. Though every student may not have had the opportunity to speak or share out every day, Ali's participation in professional development fostered her understanding of the significance of students' funds of knowledge and cultural experiences. Students began to understand learning expectations consistently, and Ali's content instruction strived to be equitable, demonstrating her commitment to fostering a culturally responsive classroom.

The individual cases expanded on participants' thinking and practice before and after professional development centered on culturally responsive teaching. Through a questionnaire, an interview, and classroom observations, detailed participant experiences

emerged. The themes that emerged from each case are analyzed across cases in the next section.

Cross-Case Analysis

I utilized within-case analysis to analyze the data from the five participants, including a questionnaire, interview notes, and observational field notes that detailed how participants thinking and practice changed as a result of participation in professional development centered on culturally responsive teaching. In addition, the within-case inductive analysis revealed general categories in the individual participant data. I then conducted a cross-case analysis to examine the patterns and themes that emerged across all participants.

Several themes emerged from the cross-case analysis of the five participants relating to changes in their culturally responsive thinking and practice in the classroom before and after professional development. Two themes emerged related to the participants' thinking and practice before the professional development: 1) participants' lack of professional development centered on culturally responsive teaching and 2) participants' implicit bias. Three themes emerged related to participants' thinking and practice post-professional development: 1) increased awareness of implicit bias, 2) incorporation of cultural connections, and 3) building positive relationships with students. The following sections explore the cross-case themes that emerged before and after teachers participated in professional development experiences.

Pre-Professional Development Emerging Themes

Analyzing participant responses from the questionnaire and interviews helped me better understand where participants were in their knowledge and experience with

culturally responsive teaching (CRT) before participating in the professional development. Below, I describe the two themes of the participants' which will later in the chapter show the trajectory of change in teachers' thinking and practice.

Participation in professional development. All five participants revealed that they had not experienced any prior professional development centered on culturally responsive teaching and did not practice culturally responsive teaching in their classrooms. However, four out of the five participants did provide their definitions of culturally responsive teaching.

Implicit bias. Another cross-case theme that emerged across all cases before professional development was that all participants held implicit bias. All teachers marked "no" when answering the questionnaire on if they held implicit bias. During the interviews, when asked if they had demonstrated implicit bias, three of the four participants changed their answer as I elaborated on the question giving them the definition of implicit bias. Sara's low expectations and unconscious beliefs about students' performance could potentially daunt her students' academic abilities. Britni's fear of addressing culture in her classroom other than hers deterred many conversations that could have aided in student success. Britni's lack of addressing opportunities to connect students' home lives to the classroom might have discouraged students' success and achievement, especially for students of color that are already at a disadvantage with European White dominant based textbooks and content. Kasie's implicit bias about students' past proficiency on content and assessments forced students to be labeled as

underachieving and placed into remediation groups for future lessons that did not necessarily build on prior knowledge.

Cross-case analysis revealed that the participants had no prior professional development centered on culturally responsive teaching, and many held implicit biases about their students. Participating in professional development and brown bag lunches helped teachers recognize their lack of knowledge surrounding culturally responsive teaching and identify strategies to combat their biases.

Post Professional Development Emerging Themes

This section details cross-case themes related to changes in participants' thinking and practice after participation in professional development centered on culturally responsive teaching. These themes emerged from the five individual cases. Below implicit bias, cultural connection, and relationships will be detailed.

Implicit bias. Participants' increasing awareness of their implicit bias after participating in the professional development was another theme that emerged from the cross-case analysis. During the post-professional development interviews, four of the five participants noted some change in their own implicit bias during the interviews. Participants indicated that their implicit bias yielded uncontrollable explicit behaviors regardless of suppression. After professional development, all four participants realized how they, in some form, exhibited implicit bias. Though it was not to be spiteful or vindictive, they understood how their preferences did not align with culturally responsive practices or increased student achievement.

Cultural connection and incorporation. Regarding teachers' practice, another theme that emerged was incorporating students' cultures in the classroom, which participants stated had a significant impact on student engagement, motivation, and achievement. As a result, students of color often feel marginalized and disconnected because the curriculum does not reflect their lived experiences leaving them to struggle academically. During observations of participants' classrooms, I noted that when students were encouraged to bring their voices into the classroom, they could make personal connections to the content. For example, Lia Nathans used the literature her class was reading to engage students and connect students' cultures and lived experiences to the content. Lia used the COVID-19 pandemic and current racial tension issues to link the content to students and bring about discussions. She also fostered a platform for students to speak and an environment for their voices to be heard, which engaged many, even the students, who would not usually participate in the learning. In case 3, Britni Goth used various students' cultures and races when giving examples in her classroom instruction. She sometimes used Spanish instead of English words to connect with her Latino students. She allowed students to use choice in the platform they used when doing assignments. When reading literature, Britni always brought the learning back to what a student is currently doing in their personal lives to connect to what is discussed in the literature. This incorporation created engagement for students and allowed an understanding of content concerning students lived experiences. Kasie Bins, in case 4, also incorporated culture into her instruction and classroom. She had a classroom library that reflected different cultures so her students could feel included and valued. She also solicited the opinions of all her students when making decisions. She has items in her

classroom labeled to represent the different languages of the students she teaches. Ms. Bins also incorporated culture into the classroom when she assigned students to bring pictures from home that represented themselves to put on the front cover of their journals. She indicated that when she incorporated students' names into the bell ringers and exit tickets or included places that students frequented, they were always more engaged and ready to work because they felt valued and a part of the classroom community and connected to what was asked. She also talked about giving students an open forum to talk about their cultures and backgrounds, to get to know her students, and for them to get to know each other. Although I observed some instances of cultural incorporation, participants acknowledged the difficulty in changing their long-engrained mindsets and practices. They experienced missed opportunities to incorporate students' cultures during discussions and classroom discussions.

Responding to ethnic diversity was evident in several cases. When students have representation in the classroom and a voice, the mesh between culture and content creates ease of understanding. Incorporating their lived experiences and culture into the content is meant for learning socially, academically, and emotionally. Integrating culture into the classroom and content has proven to meet these psychological needs from the evidence of emerging themes.

Relationships. Another emerging theme that unfolded from this study between all five participants was the relationships between student and teacher and student to student. During classroom observations, teachers greeted students at the door, talked about their performances at after-school activities, and gave them a chance to have a voice and choice in their classroom. Participants spoke about making students feel valued.

Participants also noticed acknowledging students' opinions and calling on them to pronounce their names correctly gained students' respect. One participant was Black and found that her race and some of her experiences aided her relationships with her students of color. They instantly made connections with her. All five participants also used "good things" before beginning their lessons but asked specific questions based on knowledge gained from students so that all students' participation occurred throughout the week. "Good things" help create connectivity between students, aiding in creating positive and strong relationships by getting to know one another through dialogue.

During the brown bag lunches, participants discussed how culturally responsive professional development challenged them to interact more with their students. Communication is vital in building positive relationships, and the participants worked to have open lines of communication with each of their students. Student-teacher relationships encompass the interactions between the teacher and the students. Participants stated their interactions with students increased in trust and engagement. Observation of teachers in the classroom showed that they valued students by incorporating students' hobbies and lived experiences into the classroom to foster positive relationships. Participants stated that demonstrating caring and building learning communities was essential to building relationships.

In conclusion, data for this study was generated from a questionnaire, interview notes, observational field notes and brown bag luncheons that detailed how participants thinking and practice changed as a result of participation in professional development focused on culturally responsive teaching. A within-case inductive analysis revealed general categories in the individual participant data and cross-case analysis to examine

the patterns and themes that emerged across all participants. Two themes emerged related to the participants' thinking and practice before the professional development: 1) participants' lack of professional development centered on culturally responsive teaching and 2) participants' implicit bias. Three themes emerged related to participants' thinking and practice post-professional development: 1) increased awareness of implicit bias, 2) incorporation of cultural connections, and 3) building positive relationships with students.

Discussion

This qualitative study explored the impact professional development centered on culturally responsive teaching had on teachers thinking and practice in the classroom. Five participants participated in the study, and each participant answered a questionnaire and was interviewed and observed in their classroom. In addition, each case generated data, which was cross-analyzed between the five cases to find emerging themes. The theoretical framework of Brown-Jeffy and Cooper's (2011) culturally relevant pedagogy informed the study and Table 4.2 align the emerging themes to the components of Brown-Jeffy and Cooper's theoretical framework.

Table 4.2

The Connection between Emerging Themes and Framework

Brown-Jeffy and Cooper's Framework	Implicit Bias	Cultural Connections	Relationships
Student Teacher Relationships			✓
Teaching Whole Child		✓	
Developmental Appropriateness		✓	
Equity and Excellence		✓	
Identity and Achievement	✓		

Through several emerging themes, research findings highlighted the influence of teachers' participation in culturally responsive-centered professional development. The study also illustrated the need for professional development centered on culturally responsive teaching for educators to meet the needs of a diverse student population in present-day classrooms. Research shows that teachers are unprepared to meet the diverse needs of students (Brown-Jeffy & Cooper, 2011). Therefore, teachers entering the profession and teachers who are currently in the profession could benefit from participating in professional development focused on culturally responsive teaching to meet these challenges so that the disparity in the achievement gap does not continue to widen.

This study answered the central research question: How does participation in professional development on culturally responsive teaching influence teacher thinking and practice? The following sections details the three main findings from this study: (a) teachers' awareness of their implicit bias, (b) connection of culture to content, and (c) positive teacher-student relationships.

Teachers' Awareness of Implicit Bias

Research has shown that for teachers to foster cultural responsibility, they must first understand their own culture and implicit bias (Delpit, 1995; Delpit, Dowdy & Kilgour, 2002; Gay, 2018; Ladson-Billings, 1994). The demographic divide between teachers and students contributes to the achievement gap. Classrooms in the 21st century have a racial and cultural mismatch between students and teachers. Even in classrooms with no racial mismatch, the education system rests on the dominant culture (European Americans), and teachers were and remain educated by this dominant curriculum.

Therefore, teachers must understand their culture before effectively leading a culturally responsive classroom. Brown-Jeffy and Cooper's (2011) culturally relevant pedagogy framework discusses the principle of identity and achievement. This principle rests on the notion that if individuals address their culture, define and express it, others can see themselves through these lenses (Brown-Jeffy & Cooper, 2011). Therefore, teachers must be aware of their cultural identities to understand the difference and similarities in the cultures of their students. As a result of teachers being educated in a system primarily rooted in White dominated cultural beliefs and perspectives (Sleeter, 2001), teachers need to participate in professional development centered on culturally responsive teaching to uncover their own implicit bias. While it is true that addressing implicit bias may not solely close the academic achievement gap, it does, however, provide support in building classroom community, understanding other cultures, implementing an expectation of cultural responsiveness in the classroom, and aid teaching a diverse student population and academically meeting students of color's needs, which in turn will benefit student's achievement (Hammond, 2014).

Connection of Culture to Content

The connection of culture to content was a significant theme that emerged across all cases after teacher participation in professional development. Acknowledging students' cultural heritage and ethnicity is part of culturally responsive teaching (Gay, 2018; Hammond, 2015). Gay (2018) discussed the importance of culture and how it influences a person's thinking and communication. Although there may be a slight risk of alienating some individuals or cultures, the relationship between culture and content will demonstrate higher achievement in students when it is appreciated, understood, and

talked about (Bonner et al., 2018). Brown-Jeffy and Copper's theoretical framework contains three principles that are the foundation to support connecting culture to content. These principles teach the whole child equity, excellence, and developmental appropriateness. Teaching the entire child expounds on the meaning of not only teaching academics but teaching to a child's social, emotional, and psychological self. Children enter school with beliefs and perceptions that are formed from their cultures. Teaching the whole child often requires professional development centered on cultural responsiveness to gain strategies to understand cultural behaviors in students. Brown-Jeffy (2011) argues that equity in excellence means giving students what they need to succeed, and that incorporating culture helps students see themselves in learning. This significant theme between cases begs for equity in education because all students are not the same, and we must give them what they need to succeed. Hammond (2014) talks about the importance of cultural relevance and the imperative in engaging and enabling the cognitive process of learning. This study suggests the importance of incorporating culture, allowing students to bring their experiences and skills to learning, and for teachers to foster cultural responsiveness in the classroom. Once again, demonstrating that when students see themselves in their curricular resources, they become engaged, empowered, and better at information processing (Hammond, 2014). Developmental appropriateness is the third principle that aligns with connecting culture to content. It is crucial to know where students are cognitively in their learning because it helps them think critically, build on prior knowledge, and problem solve. Culture plays a role in a child's development, and teachers should know what is culturally appropriate for students with diverse backgrounds (Brown- Jeffy & Cooper, 2011).

Positive Teacher-Student Relationships

To confront the racial mismatch (Boser, 2014) between students and teachers, a positive relationship needs to be fostered to gain trust. When teachers create connections with their students, positive relationships begin to form. Although some might argue that student achievement can increase with or without a positive teacher-student relationship, when these relationships develop, it creates a greater increase in students academically and emotionally (Gay, 2018). Positive relationships nurture students' cultural identity, empower learners, and build learning capacity. The racial mismatch cannot be prevented, but by participating in professional development teachers can learn to meet the needs of their diverse students. Culturally responsive teaching is "a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" (Ladson-Billings, 2009, p. 20). The relationships that students and teachers build will aid in their lives beyond their school years.

Implications

With this multiple case study, I detailed the impact professional development focused on culturally responsive teaching had on teacher thinking and practice. Given the results of the findings, this study has four implications for teachers, Hasborough School District, and teacher education programs.

The first implication is for teachers. Not only must state standards be taught, but teachers' must support teachers in learning at their highest potential. The implications of the study findings about the need for teachers to be aware of their implicit bias, work to connect student's culture to content, and build positive teacher-student relationships are important for teachers in all classrooms. This study has addressed the need for teacher

preparation in present-day culturally diverse classrooms. Specific professional development focused on culturally responsive teaching is something that every teacher should participate in, aiding in narrowing the achievement gap. Teachers should begin to gain this knowledge in teacher education programs and sustain it through additional professional development throughout their teaching career. However, if teachers do not get this training in their teacher education program they must receive it during teacher in-service week before the school year with follow up sessions throughout the year.

The second implication is directed to Hasborough School District. A mainly white teaching force in education yields a need for culturally responsive teaching professional development, essential for teacher connection and positive relationships with students, specifically students of color. The demographics of Hasborough School District are 35.5% Black, 33.9% White, 1% Asian or Asian/Pacific Islander, 19% Hispanic/Latino, and 0.4% American Indian or Alaska Native. Therefore, it is vital to conduct culturally responsive onboarding throughout schools in the district and to ensure that this professional development is ongoing throughout the school year for teachers to sustain culturally responsive practices and transform their mindset. Professional development can be conducted through an outside person coming in to meet the need or the district can hire a culturally responsive facilitator to provide this service yearly throughout the district.

The third implication focuses on teacher education programs. With an increase in student diversity in classrooms, teachers must be prepared to meet the needs of this cultural diversity before entering the classroom. It is critical that those who are designing curriculum for teacher education programs are aware of this study and research surrounding culturally responsive teaching. Classes focused on culturally responsive

teaching should be a mandatory implementation in every teacher education program. This to be further sustained by job embedded professional development centered on culturally responsive teaching yearly.

The last implication is concentrated on students and their achievement. Research shows that culturally responsive teaching is one solution to improving the academic achievement gap (Gay, 2018; Griner & Stewart, 2013; Hammond, 2014; Ladson-Billings, 2009; McKinley, 2010). The incongruence of students of color from white dominated classroom content and state standards is evident in academic performance. Studies like this one demonstrate the need for teachers to participate in professional development centered on cultural responsiveness for equity to occur. When students of color can have value in the learning environment and bring their fund of knowledge to the table and have a connection to learning then there is a direct impact to student achievement and success.

Recommendations

Based on data collected through interviews and observations, there are several recommendations for practice and future research. The first recommendation is to expand the culturally responsive teaching professional development to include all teachers in Hasborough Middle School. The data from the five participants revealed three critical themes that would be of benefit to all teachers in the school would be beneficial. These three themes, awareness of implicit bias, cultural connection and incorporation, and relationships, should be experienced by all teachers. These themes allow teachers to examine their biases and practices to impact their instruction.

The second suggestion is to gather and analyze the data from the first recommendation to measure the benefits of the larger group of participants, then decide

on making this professional development a mandated district initiative in the Hasborough school district. Focused professional development generated positive results on students and teachers that were positive about students' achievement, teachers' identity, and teachers' instruction of students. A larger group of participants would broaden the impact on teachers' instruction and student achievement. A larger group of participants would also generate data to support the credibility of my research.

Finally, the last suggestion would be to incorporate a more social-emotional connection to professional development to align with the academic strategies present primarily during this study's professional development. This component would delve into learning about how cultural diversity and experiences affect a child socially and emotionally and what strategies the teacher can learn to support culturally diverse students who are struggling in this way. Narrowing the achievement gap and changing the perspectives and thinking of teachers involves developing teachers with strategies to instruct in the classrooms and meet the needs of teachers and students emotionally.

Conclusion

The participants in this study were purposefully selected from teachers within Hasborough Middle School to explore the impact that professional development centered on culturally responsive teaching had on teacher thinking and practice. This study had variable influences on the participants. Participants had unique qualities and experiences that set them apart, but one commonality was the lack of professional development focused on culturally responsive teaching. The findings of this research study illuminated the need to develop teachers professionally for the diversity of present-day classrooms, as well as the significance of utilizing culturally responsive teaching to narrow the

achievement gap. It is important that all educators are trained in culturally responsive teaching because all students do not share the same cultures, beliefs, experiences, or perceptions as their teacher or the dominant culture, continually causing disparity in achievement.

CHAPTER FIVE

Distribution of Findings

Executive Summary

The cultural differences in K–12 classrooms increase yearly, leaving educators with dissimilar backgrounds and cultures from their students often unprepared to meet the academic needs of this diverse population of students (Brown-Jeffy & Cooper, 2011). While there is a steady increase in student cultural diversity in classrooms, there is a significant lack of teacher preparedness for teaching culturally diverse students (Castro, 2010; Ladson-Billings, 2009; Prater & Wilder & Dyches, 2008; Sleeter, 2001). Often, educators do not receive the necessary training to meet diverse students’ individual needs and experiences. Furthermore, teachers lack training in “cultural synchronization and responsiveness, which inhibits student achievement” (Gloria Ladson-Billings, 2009, p. 19). Many preservice and seasoned teachers lack the cultural responsiveness to teach in diverse classrooms effectively (Hammond, 2014; Yoon & Martin, 2019). The mismatch between the teaching force and diverse student populations impacts teacher-student relationships, student connection to the content, and student academic achievement (Bonner et al., 2018; Griner & Stewart, 2013; Young, 2010). The continuing absence of professional training centered on culturally responsive teaching for teachers will have lasting effects on public education. A shift away from instructional practices aligned primarily with White middle-class culture is imperative to meet the needs of diverse learners and work to close the racial and academic achievement gap. Teacher reflection and professional development centered on culturally responsive practices are essential for

teachers to instruct students who are culturally unrelated to them effectively. Participation in purposeful, professional development focused on culturally responsive teaching is one-way educators can gain the necessary skills, knowledge, and dispositions needed to engage in culturally responsive practices that address inequalities and disparities in achievement. Evidence suggests that culturally responsive teaching is one solution to the underachievement of students of color and may improve student academic achievement (Gay, 2018; Griner & Stewart, 2013; Hammond, 2014; Ladson-Billings, 2009; McKinley, 2010).

This qualitative multiple-case study explored the influence that professional development (PD) focused on cultural responsiveness had on teachers' thinking and practice. Many novice teachers come into the educational career field with little to no training on diversity and teaching in a culture different from the dominant European White Culture (Brown-Jeffy, 2011; Sleeter, 2001). With classroom diversity increasing yearly and the achievement gap showing no signs of narrowing, this study adds to research on intentional PD's influences on teachers' thinking and practice in the classroom. Teacher preparation and training are necessary to reach the diverse student population in present-day classrooms (Brown-Jeffy & Cooper, 2011; Sleeter, 2001). Hasborough Middle School has the most diverse student population of the seven middle schools in Hasborough County. Unfortunately, many teachers at Hasborough Middle School have not been adequately prepared during their teacher education program to meet the needs of students from different cultural backgrounds. Teachers should participate in culturally responsive professional development to impact the significant and persistent disparity in academic performance between white students and students of color.

Overview of Data Collection and Analysis Procedures

Five participants from Hasborough Middle School participated in this study. They taught math, Middle Years Programme literacy, social studies, and science. Data for the analysis was collected in the Fall 2020 semester and included one 45-minute semi-structured interview per participant, one 45-minute informal observation per participant, three brown bag luncheons, and a pre-professional development questionnaire. The interview questions centered mainly on the participants' understandings of culturally responsive teaching and their own implicit bias after they participated in the culturally responsive teaching professional development. The classroom observation focused on the participant's classroom practice, particularly their use of culturally responsive practices.

Data analysis consisted of within-case analysis to analyze the data from the five participants, including questionnaires, notes from participants as they conversed during brown bag luncheons, interview notes, and observational field notes of the participants that detailed how participants thinking and practice changed as a result of participation in professional development centered on culturally responsive teaching. General categories were revealed during individual participant data. A cross-case analysis was then conducted to examine the patterns and themes that emerged across all participants.

Each participant was treated as a separate case; as I coded the descriptive notes, I generated categories for the data from each participant. Then I took the categories from each participant and conducted a cross-case analysis to find the emerging themes. Finally, a discussion of the themes occurred through the lens of Brown-Jeffy and Cooper's culturally relevant pedagogy framework within the discussion section.

The use of triangulation through modes of data collection and data analysis allowed for the validity and credibility of the research study, along with debriefing with the participants to ensure the information from my handwritten notes was accurate.

Summary of Key Findings

This section summarizes the study's findings by examining the data through coding and cross-case analysis aligning Brown-Jeffy and Cooper's CRP framework. Three significant themes from five case studies answered the research question: How does participation in professional development on culturally responsive teaching influence teacher thinking and practice? The emerging themes were increasing awareness of implicit bias, developing cultural connections, and building relationships with students.

Awareness of Implicit Bias

Participants revealed that partaking in this study caused them to think about their culture and bias toward students, curriculum and classroom instruction. To foster cultural responsiveness, teachers must first understand their own culture and implicit bias (Delpit, 1995; Delpit, Dowdy & Kilgour, 2002; Gay, 2018; Ladson-Billings, 1994). In addition, some participants realized the power that experiences, ideals, and beliefs hold and how they place an essential role in shaping one's thoughts and actions.

Developing Cultural Connections

Connection between content and students' culture was a theme of the study. Research shows that cultural context in subjects is crucial, increasing student information processing and achievement (Bonner et al., 2018; Gay, 2018; Hammond, 2014). When

students are vested in their learning and know how it applies outside the classroom, they are more likely to succeed and increase achievement.

Building Positive Relationships

Finally, the third theme of the study was building relationships. As participants noted their different experiences, it was clear that when they took an interest in their students, they saw a better focus on content and a sense of pride in their work from students. Making student voices heard in the classroom and giving students an open forum to speak allowed for a more positive relationship between student and teacher. Gay (2018) supports this idea when she notes that students of color are seen, respected, and valued their growth emotionally, socially, and academically increases (Gay, 2018). In alignment with Brown-Jeffy and Coopers' (2011) culturally relevant pedagogy model, student-teacher relationships are strengthened, which prompts an increase in achievement.

Recommendations

From the findings presented in Chapter Four, I generated three recommendations for the district. The first recommendation is to conduct professional development focused on culturally responsive teaching for the entire staff during teacher in-service week before the school year. A qualified, culturally responsive trainer will schedule a specific training time with each district school. One requirement for teachers in the district as part of their contract is that they have four days of professional development during the summer. These four days present an opportunity to spend one day dedicated to professional development centered on culturally responsive teaching. This professional

development would begin the ongoing support teachers need to foster cultural responsiveness in the diverse classroom to meet the needs of students of color.

A second recommendation is to hire a culturally responsive facilitator for the Hasborough School District. With the high number of students of color that our district services and the high number of unprepared teachers for that diversity, a culturally responsive facilitator can continually host professional development for teachers throughout the year. Professional development would aid in awareness of teachers' own culture and implicit bias to foster openness to other cultural beliefs and ideas in the classroom.

A third and final recommendation would be for policymakers in the state of Arkansas to become more aware of best practices in culturally responsive practice. Twenty-first-century classrooms are increasing in diversity yearly. It is imperative that they are aware of the research in this study, because of the majority of policymakers lacking in familiarity of having taught in a classroom or with what is happening in schools. It is critical to share the findings of this study with policymakers to shed light on the racial mismatch between 21st-century classrooms and the academic disparity that exists.

Findings Distribution Proposal

The study's findings reveal the impact professional development focused on culturally responsive teaching can have on teacher thinking and practice. The following sections describe how I communicate to stakeholders who may benefit from this study's findings. In addition, the following sections describe considerations for the distribution of

the study's results, including target audience, proposed distribution method and venue, and distribution material.

Target Audience

Professional development offerings and time to conduct yearly sessions for the sustainability of culturally responsive implementation require many working parts. First, it is important to identify the individuals who will benefit from participating in the professional development centered on cultural responsiveness. These participants are all educators K–12 as well as human capital directors for school districts. Coordination with the administration on who will deliver professional development sessions at the beginning and throughout the year and to what schools must be determined. Second, participants need to understand the professional development process and timeline to be prepared to participate. Finally, the participation results should be presented to the superintendent, the school board, and the community so that the benefits of culturally responsive professional development are revealed, making it essential for implementation throughout the district.

Proposed Distribution Method and Venue

There will be several steps to the proposed distribution method. First, the data from the study will be disseminated to all the teachers at Hasborough Middle School. The goal of sharing the data with the whole staff will potentially create a commitment to participation if the superintendent approves implementation for the entire district. This presentation will be during the in-service week, when every teacher will be present and available to listen to the study's findings.

The second would be a presentation of data and findings to the superintendent, assistant superintendent, and curriculum coordinator. I will create a presentation and present it during a school board meeting. This presentation will be on the study's findings and the benefits it could bring to teachers and the district. I will also get current data from teachers if how professional development has aided in creating culturally responsive classrooms. I will talk about the possibility of making professional development centered on culturally responsive teaching a district intuitive. I will talk about the benefit of this specific type of professional development based on the findings and demographics of the district.

Distribution Materials

I will create a poster presentation of this study to impact the goal of narrowing the academic achievement gap by providing culturally responsive professional development to teachers to influence their thinking and practice. I will also provide an electronic presentation of the study's problem, data, and findings. Lastly, I will make a video presentation where participants narrate the process and discuss the results from their point of view.

Conclusion

Twenty-first-century schools in the United States continue to increase in diversity and have a teacher workforce that does not mirror the same increase in the student body. In addition, teachers' cultural backgrounds, experiences, and beliefs are vastly different from the students they serve. Therefore, new and veteran teachers must participate in professional development to adopt strategies, awareness, and knowledge to enrich the lives of students of color.

With this study, I sought to answer the question: How does participation in professional development on culturally responsive teaching influence teacher thinking and practice? Although there needs to be more extended initial professional development aside from one day and sustained throughout the year, the study revealed that culturally responsive teaching changed teachers' thinking and practice in three significant ways. The first change was in thinking of participants' increased awareness of their implicit bias. The second change was in the teacher's practice of connecting content to culture. Finally, the last emerging theme was positive relationships between teachers and students. Participants detailed their experiences before and after their involvement in professional development.

The racial mismatch between students and teachers and cultural diversity in present-day classrooms are increasing yearly (Boser, 2014). This mismatch between students and teachers contributes to the achievement gap. The research findings support the need to implement professional development centered on culturally responsive teaching as a contributing factor to narrowing the achievement gap

APPENDICES

APPENDIX A

Interview Protocol Procedure

This interview provides data on how professional development focused on culturally responsive teachers impacts their thinking and practice. The objective of one 45-minute interview with each participant is to find teachers thinking and practicing before and after participating in professional development. The interview questions guide the study, and open-ended questions give the ability for answers to be reflective. This study gains knowledge on the impact of professional development, focused on culturally responsive teaching, on teachers thinking and practice. All handwritten data was accurately written and coded. I also used member checking with the interview answers for the most accurate results.

QUESTIONS

1. Have you ever been to culturally responsive training? Yes or No?
2. Have you ever exhibited implicit bias? Yes or No?
3. What do you know about culturally responsive teaching?
4. How do you now incorporate other cultures into the classroom daily after PD?
5. How has your thinking changed based on the PD?
6. What outside resources do you now use to connect learning to other cultures in the classroom?
7. How did participation in culturally proficient professional development influence your perception of student learning and achievement?
8. Did you prepare for your students of different cultures daily before training?

9. Have your practices changed based on your participation in PD?
10. How did participation in culturally proficient professional development influence your instructional practice?
11. Describe the influence of participating in culturally proficient professional development on your other teaching practices.
12. Did the culturally proficient PD change how you establish peer relationships? Why or why not?
13. Did the culturally proficient PD change how you establish relationships with your students? Why or why not?
14. Do you currently use students' funds of knowledge (skills and knowledge that have been historically and culturally developed to enable an individual or household to function within a given culture) in the classroom?
15. Before training, use students' funds of knowledge (skills and knowledge that have been historically and culturally developed to enable an individual or household to function within a given culture) in the classroom?
16. How would you describe the influence of teacher professional development, focused on cultural responsiveness, on student achievement?

APPENDIX B

Request to Conduct Research



[REDACTED]
School District

REQUEST TO CONDUCT RESEARCH

Please submit the completed request form along with IRB Application/ Approval letter* or and data collection instrument (if applicable) to: [REDACTED]

Name of person making the request: Kyria Wilson

HSSD employee: yes: X no:

Contact information: Kyria_wilson1@baylor.edu

Name of University or organization sponsoring your research: Baylor University

In order to consider your request, the following information is required:

What is the purpose of your research proposal?

The rising cultural differences of K-12 classrooms significantly increase yearly, and most educators find themselves unprepared to meet the needs of this diverse population. A mixture of cultures, beliefs, values, genders, religions, and economic backgrounds are changing the one size fits all classroom, where educators can teach using one specific strategy that reaches every student in their classroom. Within the classroom, increased diversity must be met with full inclusion and open-mindedness from the teacher and students within the learning environment to begin to establish a culturally responsive environment and address cultural inequity. Teachers have the responsibility to intentionally align standards and curriculum to meet the needs of all students. Teachers in education programs and career teachers are mostly unprepared to teach a diverse group of students that have cultural beliefs and identities outside of what they know.

The purpose of this single instrumental exploratory case study is to develop five teachers' cultural responsiveness through the implementation of professional development and discover the impact it has on themselves and their students. With increasing diversity in middle school classrooms, educators need to gain the proper training to teach varying forms of content, engage

students, and foster positive relationships with students of different cultures towards successfully implementing culturally responsive strategies to create cultural equality and increase student achievement in their classrooms.

What data do you propose to collect in [REDACTED]?

Observations and interviews of five teachers at [REDACTED] The timeline will be from August 2020 through December 2020.

How do you plan to collect this data?

Below is a table of the timeline for data collection.

Date	Procedure	Notes
Late August 2020-September 2020	Contact Participants Acquire signed participants Share timeline and research intent and details Schedule and complete interviews and first round of observations with participants	Upon Approval from [REDACTED]
October 2020	Schedule and complete 2nd round of observations with participants	Data analysis from individual interviews will be conducted to determine themes and coding language
December 2020	Schedule and complete final interviews with participants if necessary.	Data analysis from 2nd interviews will be conducted if necessary
Spring 2021	Interpretation of results and writing of findings	Chapters 4-5

Principal & Participant Consent Required:

[REDACTED] principal and five teachers, grades 7-9.

How do you plan to ensure the confidentiality of the identity of participants?

I will have detailed written consent forms for the principal and participants to sign.

Have you received IRB approval from your university?

Yes, Baylor IRB has approved this research. I will provide [REDACTED] with the approval documentation.

Please provide the name, contact information, and signature of your university supervisor, below.

Name of University Supervisor: Dr. Brooke Earl Blevins

Contact information: Brooke_Blevins@baylor.edu

If approved, HSSD requests a copy of any report that utilizes the data from this agreement.

*IRB approval form/letter must be submitted to [REDACTED] prior to the start of your data collection process.

HSSD APPROVAL STATUS:

Consent Granted: ☒

Consent contingent on further details: ☐

WE are requesting:

Consent denied: ☐



Note: The emails and signatures have been removed for cyber security purposes and original signed documents are available upon request.

APPENDIX C

Observation Recording Form

<i>Observation: 45 Minute Class Period</i>		
<i>Teacher:</i>	<i>Date:</i>	
<i>Descriptive notes</i>	<i>Reflective notes</i>	<i>Culturally relevant pedagogy principles</i>

APPENDIX D

Informed Consent

Baylor University
Department of Curriculum & Instruction

Consent Form for Research

PROTOCOL TITLE: Teacher Participant Consent Form

PRINCIPAL INVESTIGATOR: Kyria Wilson, Doctoral Candidate, School of Education

SUPPORTED BY: Baylor University

Purpose of the research: Often, pre-service teachers and in-service teachers are not fully prepared to teach to the increasing diversity in classrooms presently. Teacher education programs may infuse a few courses to help pre-service teachers develop skills for working with a diverse student population, but there is often not a systematic focus on issues of diversity in teacher education programs (Sleeter, 2001). To attend to the lack of preparation in culturally relevant pedagogy that pre-service and teachers receive, intentional professional development about culturally relevant pedagogy in reoccurring cycles may help better prepare teachers for their present and future classroom diversity (Villegas & Lucas, 2002). Teachers are a critical part of student achievement, and their development of skills for working with diverse student populations is essential to students' of color success. On-going professional development on cultural responsiveness is a potential solution to help lessen the achievement gap. The purpose of this case study was to explore the influence that purposefully designed professional development focused on cultural responsiveness had on teachers' thinking and professional practice at Hasborough Middle School.

Study activities: If you chose to participate in this study you will answer a questionnaire regarding your level of knowledge on culturally responsive teaching. Also as a participant you will be asked to participate in a sixteen question interview and two 45 min classroom observations.

Risks and benefits: There are no risk to participants for taking part in this study. Benefits maybe gaining knowledge through participation in culturally responsive teaching centered professional development.

Confidentiality: The researcher avoided falsifying evidence and data and avoided disclosing evidence that could harm a participant and break confidentiality. The researcher ensured that all participant permissions were adequately collected and produced real and trustworthy results while ensuring that all audio-recorded interviews were stored only to use a code to open.

Compensation: Participants will not receive any form of compensation.

Questions or concerns about this research study: If there are any questions or concerns about this research our telephone numbers are listed below:

Kyria Wilson
Phone: redacted
Email: redacted

Or

Dr. Brooke Blevins, Faculty Advisor
Phone: redacted
Email: redacted

If you have any questions about your rights as a research participant, or wish to obtain information, ask questions, or discuss any concerns about this study with someone other than the researcher(s), you may contact the Baylor University IRB through the Office of the Vice Provost for Research at (254) 710-3708 or irb@baylor.edu.

Taking part in this study is strictly your choice. You are free to participate or stop at any time for any reason. There will be no penalty or loss of benefit. If you decide to part and not complete the study, the data already gather will be kept confidential. Information and data already collected will not be deleted.

By signing below, you provide consent.

Signature of the Subject

Date

APPENDIX E

Pre-Professional Development Questionnaire

1. Have you ever been to culturally responsive training? Yes or No?
2. Have you ever exhibited implicit bias? Yes or No? In what ways?
3. What do you know about culturally responsive teaching?

APPENDIX F

Timeframe for Research Design

Table F.1

Timeframe for Research Design

Date	Procedure	Notes
Late August 2020-September 2020	Contact Participants Acquire signed participants Share timeline and research intent and details Schedule and complete first interviews with participants	Upon Approval from [REDACTED]
October 2020	Schedule and complete 2nd round of observations with participants	Data analysis from individual interviews will be conducted to determine themes and coding language
December 2020	Schedule and complete final interviews with participants if necessary	Data analysis from 2nd interviews conducted if necessary
Spring 2021	Interpretation of results and writing of findings	Chapters 4–5

APPENDIX G

Timeline of Dates for Research Study

Table G.1

Timeline of Dates for Research Study

Type of Professional Development	Sara Winton	Lia Nathans	Britni Goth	Kasie Bins	Ali Smith
Participation Request	8-12-20	8-12-20	8-12-20	8-12-20	8-12-20
Pre-Professional Development Questionnaire	8-17-20	8-17-20	8-17-20	8-17-20	8-17-20
Professional Development	8-20-20	8-20-20	8-20-20	8-20-20	8-20-20
Interviews and 1 st Round of Observations	9-23-20	9-23-20	9-24-20	9-24-20	9-24-20
2 nd Round of Observations	10-21-20	10-21-20	10-21-20	10-22-20	10-22-0
Brown Bag Luncheons	9-23-20 10-28-20 11-18-20	9-23-20 10-28-20 11-18-20	9-23-20 10-28-20 11-18-20	9-23-20 10-28-20 11-18-20	9-23-20 10-28-20 11-18-20

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