EXAMINING THE IMPACT OF DIVERSITY TRAINING TO CREATE EQUITABLE

CLASSROOMS

A Dissertation

Presented in Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

With a

Major in Educational Leadership in the

Department of Graduate Education

Northwest Nazarene University

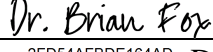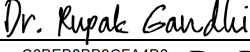
by

Abigail B. Chandler

May 2024

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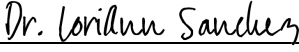
AUTHORIZATION TO SUBMIT

DISSERTATION

This dissertation of Abigail Chandler, submitted for the degree of Doctor of Philosophy with a major in Educational Leadership and titled "Examining the Impact of Diversity Training to Create Equitable Classrooms," has been reviewed in final form. Permission, as indicated by the signatures and dates given below, is now granted to submit final copies.

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To our two beautiful boys, thank you for supporting this work. William, I hope that although I was not as available to you as I would have preferred for the last two years, you know that my love for you will always be my first priority. Watching you grow into a thoughtful, responsible, successful, respectful young man is my greatest joy. Although he is grown and living on his own, Tristan sent me encouraging text messages anytime he knew I was up against a daunting deadline.

Thank you to my mom, my sisters, and my brother for allowing me to talk too much about my dissertation at each family dinner. Thank you for your willingness to help with William as needed and for inspiring me to be the best human and educator I can be to ensure our schools and our world are safer for our children.

I have spent the last 8 years serving as the principal at Carson Elementary School. These are some of the best people I know. Our office team, my assistant principal Dr. Mary-Elizabeth

Gendreau, our nurse Dr. Humphrey, and the whole staff have encouraged me, supported me, and inspired me to become Dr. Chandler. Thank you to my mentors Bill Wyant, Dr. Yeomans, and Dr. Lowney who modeled strong leadership and supported my endeavor to become a mentor to others.

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DEDICATION

This work is dedicated to my children and my mother.

When my oldest son, Tristan, was a 7th grader, he came home from school in tears. His social studies class had been learning about the historically appalling treatment of Native Americans by the US government. "Mom, what if my classmates find out I am Native American and decide to treat me badly too?" Schools can be used as weapons to try to extinguish an entire culture through the guise of assimilation.

In 1st grade, our youngest son, William, shared that he had been learning about Martin Luther King. "Mom, if I was alive during that time, where would I have gone to school?" I didn't understand the question, "What do you mean, where would you have gone to school?" He replied, "There were schools for white kids and schools for Black students, I'm not white or Black, where would I have gone to school?"

My mother, Bonnie, grew up on a wheat farm in a small town in eastern Washington. In 1966, after graduating from high school, she attended the University of Puget Sound (UPS). She was the first of her four siblings to attend college. During her sophomore year, she met and fell in love with a soldier from the Army stationed nearby at Fort Lewis. Bonnie left UPS in 1968, married my dad, and became the mother to two little girls. Three months after I was born, my dad, William G. Chandler, was killed in action on August 6, 1972. My mother spent the next 40 years navigating the loss of her first love, caring for her children, and taking one class at a time until, at the age of 64, she earned her Doctor of Ministry. She inspired a love of learning and a commitment to overcome any obstacles that might stand in the way of finishing my education.

My sons' inquiries and experiences underscore the ongoing challenges of ensuring equitable access to education for all students, regardless of race or background. Inspired by the

resilience and determination of my mother, who overcame immense personal challenges to pursue her education, I am committed to creating inclusive educational spaces where every individual can thrive and fulfill their potential. This work is dedicated to my most important teachers, my family.

ABSTRACT

This study delved into the professional development strategies employed to enhance novice classroom teachers' grasp of culturally responsive teaching and pedagogy and their subsequent impact on cultivating equitable classroom environments. The research question guiding this investigation was: What specific components of culturally responsive professional development impact the implementation of culturally competent instruction into classroom practice? An explanatory sequential mixed-methods approach was utilized to explore the effectiveness of equity and diversity training components for educators in fostering culturally responsive teaching practices. Quantitative classroom observations using the Culturally Responsive Instruction Observation Protocol (CRIOP) were conducted once in September 2023 and again in January 2024 with a cohort of 14 first-year teachers. Five participants demonstrating significant growth were selected for qualitative one-on-one semi-structured interviews. Analysis of the observational data unveiled notable improvement among seven members of the cohort, providing insights into the efficacy of the professional development activities. Qualitative interviews aimed to discern the training elements contributing to the enhanced implementation of equity-based professional practice. Through thematic analysis, five key themes emerged: Feedback and Reflection, Content Focus, Modeling and Active Learning, Coaching and Expert Support, and Collaboration and Peer Support, emphasizing the importance of multifaceted support structures in fostering pedagogical growth. Qualitative data analysis through the lens of andragogy revealed the presence of all six tenets: learner's need to know, self-concept, prior experience, readiness to learn, orientation to learning, and motivation to learn. This holistic approach to analyzing the data provided a comprehensive understanding of the impact of culturally responsive professional development on novice teachers' instructional practices. This study sheds light on the pivotal role

of targeted equity and diversity training in promoting culturally responsive teaching practices

and fostering equitable classroom communities. The identified components can inform future

professional development initiatives aimed at enhancing teacher effectiveness and promoting

inclusivity in educational settings.

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Chapter I: Introduction

Donte Robinson and Rashon Nelson walked into a Philadelphia-based Starbucks on Thursday, April 12, 2018. The two 23-year-old men sat down to wait for a local businessman to discuss a possible real estate deal. A barista approached their table to ask if they wanted to order a drink, they explained to her they were there for a business meeting. A few minutes later, three police officers walked in and headed toward Robinson and Nelson, who were taken away in handcuffs. A video of the men's arrest, shared on the internet, gained national attention and sparked outrage across the country (ABC News, 2018; CBS News, 2018).

Days later Starbucks announced that they would close more than 8,000 stores on May 29 for a "racial bias education day" to address the unconscious bias that caused two Black men to be arrested for simply sitting and waiting for a potential business partner. This move, shutting down for an afternoon at a loss of up to $12,000,000 in profit, would not make much of a difference in the long term. One-time corporate diversity training programs do not produce substantial or long-lasting results and can even drive backlash among employees. Such sessions cannot change inherent biases and may only focus on legal issues rather than interpersonal ones, thus having a limited impact on the workforce. Instead, continuous reinforcement of diversity messages and lessons throughout an employee's career is necessary for lasting change (Calfas, 2018; Dobbin & Kalev, 2017). To achieve lasting change, organizations should prioritize diversity recruitment, implement job-embedded mentoring, provide ongoing voluntary training sessions throughout employees' careers, and uphold social accountability (Dobbin & Kalev, 2017). Equity-based transformation requires organizations, companies, and schools to commit to diversity, equity, and inclusion as a core component of their mission, systems, and policies as modeled,

implemented, and reinforced by organization leaders (Calfas, 2018; Haddix, 2017; Juvonen et al., 2019).

Two years later, on May 25, 2020, videos of George Floyd, being arrested and then murdered while a police officer kneeled on his neck, sparked a call to action. In the following weeks, as Black Lives Matter protests swept across the nation, the United States witnessed the largest number of participants in a racial justice movement since the Civil Rights Era (Buchanan et al., 2020; Ferguson et al., 2021; Silverstein, 2021). Large companies, colleges, and school districts created committees and task forces to examine and address racism and inequity, knowing that only a significant commitment to restructuring systems and policies could impact historical racial injustice (Bergner, 2021; Devakumar et al., 2020; Love, 2021).

While diversity training may raise awareness, it does not necessarily translate into behavior change or increased diversity in leadership positions. To effectively foster diversity and inclusion, organizations need to go beyond symbolic gestures and engage in structural changes, rigorous evaluation, data collection, accountability, and leadership commitment. These changes may include initiatives like mentorship programs, sponsorship systems, diverse hiring practices, and transparent measurement of diversity outcomes. By adopting evidence-based approaches and focusing on systemic transformation, organizations can strive for meaningful diversity and inclusion (Kalev & Dobbin, 2020). Just as the business world has responded to the need for greater training and mentoring, schools need to follow this example and implement coaching and modeling as key components of their commitment to diversity and inclusion (Abu-Tineh & Sadiq, 2018; Acquah & Szelei, 2020; Acquah et al., 2020; Darling-Hammond et al., 2017; Gladney et al., 2021; Skerrett et al., 2018).

Statement of the Problem

American public schools have an opportunity and an obligation to identify and eliminate the systems of racial and ethnic inequality responsible for the opportunity gap among historically marginalized students (Brownsword, 2019; Chu, 2019; Riordan et al., 2019; Williams, 2018). Many researchers have focused on the impact of inequality in schools (Allen & FitzGerald, 2017; Ladson-Billings, 2021a; Prieto et al., 2018; Shores et al., 2019), the components of effective professional development (Darling-Hammond et al., 2017; Eun, 2021; Skerrett et al., 2018; Verdon, 2020), and the need for culturally responsive teachers and classrooms (Abaciogu et al., 2020; Gay, 2015; Hammond, 2015; Ladson-Billings, 2021b; Samuels, 2018; Verdon, 2020). To prepare the teaching force to effectively implement culturally responsive teaching practices and instructional strategies (Banks, 2006; Gay, 2018; Villegas & Lucas, 2002), universities need to deeply examine the content of their multicultural and multidisciplinary courses (Brownsword, 2019; Bybee et al., 2021; Cavendish, Perez et al., 2021; Clark, 2020). Furthermore, educational stakeholders should ensure the provision of recurring professional development opportunities, as well as ongoing coaching and mentoring, for current teachers (Acquah et al., 2020; Bybee et al., 2021; Darling-Hammond et al., 2017; Gladney et al., 2021). Beyond providing quality, effective, professional learning opportunities, school districts must identify and utilize measurement tools to determine if an educator's desire to become a more culturally responsive teacher translates into a more equitable classroom community (Cardona-Moltó et al., 2018; Chu, 2019; Ragins & Ehrhardt, 2021; Riordan et al., 2019). There is a gap in the literature regarding the measurement of equity-driven adult learning activities' impact on changing professional practice and creating lasting improvements in the educational

environments of historically marginalized students (Cardona-Moltó et al., 2018; Chu, 2019; Ragins & Ehrhardt, 2021; Riordan et al., 2019).

Background and Theoretical Framework

In 2015, the United States Congress passed the *Every Student Succeed Act* (ESSA), with a greater commitment to promoting equity and a focus on the opportunity and achievement gaps between White students and historically marginalized students than the 2002 *No Child Left Behind Act* (Choi & Lee, 2020; Chu, 2019; Every Student Succeeds Act, 2015; Williams, 2018). One of the primary goals of ESSA is to hold schools accountable for providing a quality education for all students, specifically identifying the need to improve academic outcomes for historically underserved students of color, who are living in poverty, have a disability, or come from a home where English is not the primary language (Chu, 2019; Williams, 2018). Each state educational agency (SEA) developed its own definitions of equity as well as policies, principles, priorities, and strategies to reduce equity gaps (Chu, 2019; U.S. Department of Education, 2016). Although almost all 52 plans included a vision of educational equity, fewer than half specifically addressed an equity-based outcome (Chu, 2019).

Following Civil Rights Era efforts to desegregate schools, educators began to recognize the importance of teaching students from diverse backgrounds more effectively (Gay, 2018; Harmon, 2012; Mayfield & Garrison-Wade, 2015; Reardon et al., 2019). When students of color experience a school environment that feels unfamiliar, and hostile and does not value who they are or where they come from, they may struggle with concentration and educational tasks, thus negatively impacting their academic success (Allen & FitzGerald, 2017; Gay, 2018; Mayfield & Garrison-Wade, 2015; Reardon et al., 2019). Researchers have widely documented the academic achievement gap between different racial and ethnic groups in the United States

(Cardichon et al., 2020; Feliz, 2020; Lewis Chiu et al., 2017; Paschall et al., 2018; Reardon et al., 2019; Shores et al., 2019). According to data from the National Assessment of Educational Progress (NAEP), significant achievement gaps exist between White students and students of color, particularly Black and Hispanic students, in both reading and math at all grade levels. A report by de Brey et al. (2019) found that these gaps can be attributed to a variety of factors, including poverty, discrimination, and lack of access to high-quality education. The report also highlighted the need for targeted policies and interventions to address these underlying issues to close the achievement gap and promote educational equity for all students.

Studies point to minimal progress toward improving educational equity over time regardless of educational policy attempts to reduce the gaps (Ladson-Billings, 2021a; Paschall et al., 2018; Shores et al., 2019). Opportunity gaps stem from a lack of exposure to experienced teachers, a lack of ongoing relevant professional development for educators, attendance at schools with limited funding sources, a lack of access to nutritious food and comprehensive health care, and lowered academic expectations (Cardichon et al., 2020; Chu, 2019; Ladson-Billings, 2021b; Mayfield & Garrison-Wade, 2015; Shores et al., 2019). According to data from the National Assessment of Educational Progress (NAEP), significant achievement gaps exist between White students and students of color, particularly Black and Hispanic students, in both reading and math at all grade levels (de Brey et al., 2019). The National Center for Education Statistics (NCES) reported that in 2019, among fourth-grade students, the average reading score for White students (217) was higher than the average scores for Black students (197) and Hispanic students (206). Similar disparities existed at the eighth-grade level, with average reading scores of 260 for White students, 240 for Black students, and 251 for Hispanic students. In mathematics, the average score for fourth-grade White students (240) was higher than the

average scores for Black students (215) and Hispanic students (222). At the eighth-grade level, the average mathematics score for White students (283) was higher than the average scores for Black students (253) and Hispanic students (266) as reported by de Brey et al. (2019).

Since the early 1980s, researchers have examined and illustrated the importance of multicultural education, introducing terms such as culturally appropriate, culturally responsive, culturally compatible, and culturally congruent (Aronson & Laughter, 2016; Harmon, 2012). Two primary concepts have emerged from this body of research, Geneva Gay (2018) coined the term culturally responsive teaching and Gloria Ladson-Billings (1995) introduced the phrase culturally relevant pedagogy. The common theme interwoven in this work is a commitment to creating classrooms as a central location for social change and the necessity of social justice education (Akman, 2020; Aronson & Laughter, 2016; Byrd, 2021; Canli, 2020; Dover, 2015). Educational institutions, particularly the classroom, can serve as a platform for promoting social justice and bringing about positive change in society (Akman, 2020). Various scholars argue that education, as tool, can challenge power imbalances and systemic inequalities (Aronson & Laughter, 2016; Byrd, 2021). Social justice education aims to address and challenge social inequalities and injustices and promote equality and fairness for all individuals and groups (Canli, 2020). Achieving true social change and fostering a more just and equitable society necessitates social justice education (Dover, 2015).

Culturally responsive teaching has emerged as a vital approach to education, aimed at addressing the diverse needs of students in today's increasingly multicultural classrooms. Gay (2018) laid the foundation for understanding the effectiveness of culturally responsive teaching through her argument for the incorporation of skills, knowledge, and attitudes necessary for implementing this approach. Culturally responsive teachers strive to achieve six key principles

according to Gay (2018), including setting and maintaining high expectations for all students; employing the cultural experiences, knowledge, perspectives, and practices of their students; building connections between the home and classroom; striving to educate the whole child; identifying and utilizing a student asset-based model, and critically examine and question oppressive school systems and practices. She highlighted the potential of culturally responsive teaching in improving the academic success of ethnically diverse students. In 2015, Gay further emphasized the importance of culturally responsive teaching by examining international mandates, challenges, and opportunities. Her work underscores the relevance of this approach in promoting educational equity and meeting the diverse needs of students in various educational contexts worldwide. Recent research further supports Gay's assertions by demonstrating that comprehensive preparation in culturally responsive teaching equips teachers to meet the needs of diverse student populations, resulting in increased engagement, motivation, and academic achievement (Johnson-Smith, 2020). Teachers who engage in culturally relevant praxis, such as integrating culturally diverse content, building learning communities centered on care, and adapting instructional activities to accommodate diverse learning styles create inclusive learning environments and effectively address the needs of ethnically diverse students (Aronson, 2020).

Ladson-Billings (1995) conducted a study on eight classrooms that showed success in Black student achievement, contrasting the dominant focus on Black student failure in education research. This research contributed to the creation of a culturally relevant pedagogy centered on three pillars: teachers view the importance of their role and the contributions of each student to the classroom community; supportive relationships built on equity and reciprocity fostering collaboration and mutual responsibility; learning is an active process, facilitated by teachers, incorporating multifaceted assessment strategies. After nearly 35 years

of work on a framework of culturally relevant pedagogy, Ladson-Billings (2021b) recently expressed concern that workshops, certifications, and institutes have been designed based on the popularity of culturally responsive, relevant, and sustaining pedagogies. Frequently these attempts lack theoretical grounding and may provide specific sets of behaviors that are in contrast with actual culturally responsive practices. Teacher preparation programs also fall into the habit of assigning readings related to multicultural education. Yet, they rarely model or demonstrate these practices, resulting in novice teachers' inability to translate the theory into classroom practice (Ladson-Billings, 2021b).

The inclusion of diversity instruction and pedagogy in education is currently disjointed and superficial, with many teacher educators failing to develop a systematic approach to incorporating multicultural issues throughout the curriculum. To rectify this, teacher educators must take a proactive stance in creating, communicating, and implementing a comprehensive vision for multicultural education that permeates all aspects of instruction (Dixson, 2021; Griffin et al., 2016; Holliday, 2021; Villegas & Lucas, 2002). Culturally responsive teachers possess several key characteristics that enable them to effectively instruct students from diverse backgrounds. They recognize multiple ways of perceiving reality based on cultural background and use this understanding to design instruction that is inclusive and culturally relevant. These teachers may incorporate indigenous knowledge systems, for instance, or use examples from the cultural backgrounds of their students to make academic content more relatable (Brown-Jeffy & Cooper, 2011; Gay, 2018; Ladson-Billings, 1995; Milner, 2011; Paris & Alim, 2014; Villegas & Lucas, 2002). Culturally responsive teachers hold supportive views of students from diverse backgrounds. They employ culturally responsive language instruction to help support English Language Learners and involve families and communities in the education process through

community-based participatory research (Brown-Jeffy & Cooper, 2011; Gay, 2018; Milner, 2011; Paris & Alim, 2014; Villegas & Lucas, 2002).

Teachers who embrace their role as agents of change envision themselves as catalysts for creating more equitable school environments. They may engage in the study of critical race theory to analyze the impact of race and racism on their students' education and actively work toward mitigating any detrimental consequences (Dixson, 2021; Gay, 2018; Ladson-Billings, 1995; Paris & Alim, 2014; Villegas & Lucas, 2002). Culturally aware educators recognize how learners construct knowledge and actively foster the process of knowledge development, employing a culturally responsive framework for curriculum design and instruction that recognizes the cultural background, linguistic and socio-economic status of their students and promotes high expectations and success for all students (Gay, 2018; Ladson-Billings, 1995; Paris & Alim, 2014; Villegas & Lucas, 2002). These educators possess insights into their students' lives including their cultural and linguistic backgrounds, family structures, and community resources. Utilizing this knowledge, they design instruction that builds upon students' prior knowledge while extending their learning beyond familiar contexts. They may use this knowledge to provide culturally responsive support services or to design instruction that is sensitive to the unique needs of their students (Brown-Jeffy & Cooper, 2011; Gay, 2018; Ladson-Billings, 1995; Milner, 2011; Paris & Alim, 2014; Villegas & Lucas, 2002).

It is not realistic to expect preservice teachers to emerge from their university experience fully prepared with the complex and vast skill set and pedagogical knowledge of a culturally responsive teacher (Brownsword, 2019; Cardona-Moltó et al., 2018; Moore et al., 2021). With time, experience, and a commitment to grow their professional practice based on a clear vision of the characteristics of an equity-focused social justice educator, novice teachers could be expected

to adapt their teaching to diverse students and populations (Aronson, 2020; Byrd, 2021; Carter et al., 2019; Dover, 2015). Regular and ongoing meaningful interactions such as observing, collaboration, and guided feedback with seasoned culturally responsive teachers, firsthand opportunities to serve in diverse school communities, and facilitated guided reflection all provide valuable support on the journey to cultural competence (Álvarez Valdivia & González Montoto, 2018; Anderson & Fees, 2018; Aronson, 2020; Cormier, 2021; Johnson et al., 2021). Additionally, in-service teachers need to be provided ongoing professional development opportunities that incorporate active learning strategies, small group discussions, and collaboration (Acquah & Szelei, 2020; Álvarez Valdivia & González Montoto, 2018; Cavendish, Barrenechea et al., 2021), ongoing modeling and mentoring, and time for feedback and reflection (Acquah & Commins, 2015; Darling-Hammond et al., 2017; Kishimoto, 2018; Muñiz, 2020).

Darling-Hammond et al. (2017) conducted a review of 35 studies and identified several key frameworks for successful professional development. These studies revealed that effective professional development models exhibit common characteristics, including a focus on content-specific instruction, utilizing active learning strategies, fostering collaboration with peers, providing modeling from respected practitioners, offering coaching and support, and encouraging feedback and reflection (see Figure 1).

Figure 1

Design Elements of Effective Professional Development
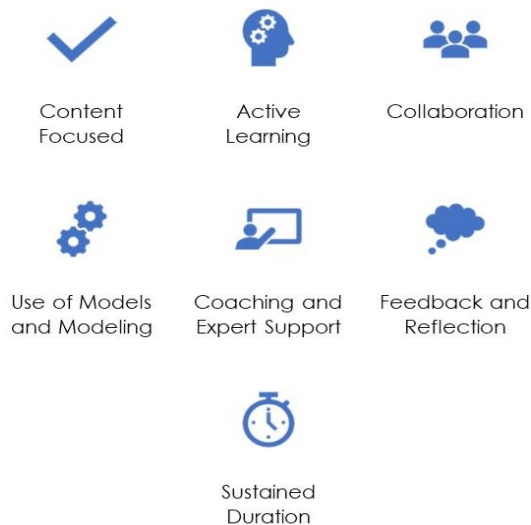
Note: Data from Darling-Hammond et al. (2017).

Active learning strategies play a crucial role in effective professional development, where teachers actively design and implement teaching strategies (Riordan et al., 2019). This hands-on approach allows teachers to experience the same style of learning they aim to foster in their students, leading to deeper understanding and improved instructional practices (Darling-Hammond et al., 2017). Collaboration with peers is an essential characteristic of effective professional development, enabling teachers to share ideas and learn from one another (Knowles et al., 2020; Riordan et al., 2019; Skerrett et al., 2018). Collaborative learning environments foster the exchange of expertise and diverse perspectives, enhancing teacher learning and promoting a sense of collective efficacy (Darling-Hammond et al., 2017).

Modeling from respected practitioners is identified as a key element of effective professional development, providing teachers with clear models of effective practice (Acquah &

Szelei, 2020; Acquah et al., 2020; Riordan et al., 2019; Skerrett et al., 2018). Learning from experienced practitioners enables teachers to deepen their understanding of best practices and enhance their instructional strategies (Darling-Hammond et al., 2017). Coaching and support are crucial components of effective professional development, addressing individual needs and sharing expertise on content and evidence-based practices (Desimone & Pak, 2017; Gladney et al., 2021; Holliday, 2021; Shorb, 2021). This personalized support assists teachers in implementing new strategies effectively and fosters continuous improvement (Darling-Hammond et al., 2017). Feedback and reflection are integral to effective professional development. Teachers need time to reflect on their practice, receive input, and make improvements. This reflective process, coupled with timely and constructive feedback, supports continuous growth and encourages teachers to refine their instructional practices (Darling-Hammond et al., 2017; Knowles et al., 2020; Skerrett et al., 2018; Young et al., 2018).

A final common element of effective professional development includes the importance of sustained duration. Professional development should be ongoing and not a one-time event. The professional development opportunities must be spread out over time so that the participants have enough time to integrate new knowledge and skills into their practice. This allows for the development of a deeper understanding and the ability to apply new information to real-world situations. Repeated exposure to culturally relevant teaching concepts is crucial for allowing participants to reflect on their learning, apply it to their practice, and make necessary adjustments to improve their instruction. This helps to create a culture of continuous improvement and learning among teachers which can lead to a positive impact on student success (Darling-Hammond et al., 2017; Skerrett et al., 2018).

Based on the observations and findings of Riordan et al. (2019), for professional development to be effective in promoting the transfer of equitable practices to classroom communities, it is essential to create a culture of examination and commitment to deeper learning within the professional development setting. This means providing opportunities for participants to engage in critical self-reflection and to explore the underlying assumptions and biases that may shape their teaching practices (Cavendish, Barrenechea et al., 2021; Parkhouse et al., 2019; Riordan et al., 2019). Additionally, the inclusion of students' voices and perspectives in the professional development process is crucial for recognizing the impact of professional learning on students, and for promoting the implementation of culturally responsive teaching (Gaias et al., 2019; Giraldo-García et al., 2021; Riordan et al., 2019). The inclusion of both equity-focused content and opportunities for engagement and active learning is beneficial to move professional learning intended to impact practice to the actual implementation of culturally responsive teaching (Riordan et al., 2019).

Andragogy, a theory of adult learning, was developed by Malcolm Knowles in the 1970s as a response to traditional models of pedagogy, which were centered on the teacher as the primary source of knowledge and focused on the transmission of information to passive learners (Knowles, 1975). In contrast, andragogy emphasizes the self-direction and autonomy of adult learners, recognizing that they bring a wealth of life experience and prior knowledge to the learning process. This perspective acknowledges that adults have different learning needs and motivations than children and adolescents and posits that they are more receptive to learning when it is problem-centered, relevant to their lives, and linked to their personal goals and interests (Knowles et al., 2020). The focus of andragogy is on the learner, not the teacher, and on creating a learning environment that is supportive, engaging, and empowering for adult learners

(Knowles et al., 2020). In practice, andragogy often involves participatory teaching methods, such as discussion, problem-solving, and hands-on activities (Chan, 2010).

The Cultivating Equitable Educator (CEE) new teacher induction training and mentoring program began in 2017 in a large Western Washington suburban school district. New to the profession or new-to-district teachers participate in professional development series conducted once a month and receive one-on-one support with one of four instructional coaches during twice-per-month classroom visits. Classroom visits, which continue during the first three years of teaching, include lesson demonstrations, guidance on instructional strategies, assistance with lesson planning, and learning-focused conversations. The CEE Commitment to Equity statement reads:

> We are committed to building knowledge, skill, awareness, and advocacy for untapped (oppressed) groups to diminish the marginalization of undocumented students and students of color. We encourage our educators to use Culturally Responsive Pedagogy that challenges students and provides an opportunity for them to draw on their own cultural fluencies to reach the goals for successful learning. Culturally Responsive Pedagogy required us to regularly consider, in the most meaningful ways, how our own values, biases, strengths, and limitations can potentially affect our effectiveness with students of diverse backgrounds. New educators will be exposed to crucial conversations around race, gender, and cultural identity and be asked to use high leverage, equitable instructional strategies as a first step in minimizing unconscious bias. (Harris School District, 2022b, slide 3)

This induction program has a stated commitment to equitable practices geared toward creating culturally responsive classrooms yet has not identified a consistent measurement of the

implementation of previously identified culturally responsive instruction in the classroom (Harris School District, 2022a).

Research Question

This study investigated the professional development activities and strategies employed to increase novice classroom teachers' knowledge and understanding of culturally responsive teaching and pedagogy and the impact of these practices to create equitable classroom communities. The following research question guided this study:

1. What specific components of culturally responsive professional development impact the implementation of culturally competent instruction into classroom practice?

Description of Terms

The following terms are directly related to this paper and its research and are used throughout.

Achievement gap. The underperformance of one group of students categorized by demographics such as race/ethnicity, gender, or economic status as compared to another group in terms of assessment measures and high school graduation (Feliz, 2020).

Andragogy. A theoretical framework for adult learning that emphasizes self-directed and learner-centered approaches (Hayes, 2022).

Cognitive coach. A skilled facilitator who fosters self-directed learning and continuous professional growth through a reflective, nonjudgmental, and developmental model (Costa & Garmston, 2015).

Cultural competence. A set of corresponding attitudes, behaviors, and policies that come together to empower a professional, agency, or system to work effectively in cross-cultural situations (Cross, 2012).

Cultural competence continuum. Levels of cultural competency include cultural destructiveness, cultural incapacity, cultural blindness, cultural pre-competence, and advanced cultural competence. Progressive growth along the continuum is fostered by multiple factors in an organization such as a change in practice, policies, and attitudes (Cross, 2012).

Culturally responsive teaching. Designing learning experiences relevant and effective for ethnically diverse students incorporating their cultural knowledge, prior experience, frames of reference, and performance styles (Gay, 2018).

Culturally responsive pedagogy. Identifying and incorporating students' cultural backgrounds, strengths, and experiences to create meaningful and effective learning experiences in a classroom (Acquah et al., 2020).

Historically marginalized populations. Women, non-white racial/ethnic groups, people who identify as LGBTQ, immigrants, individuals with disabilities, and those living in poverty (Tate et al., 2014).

Intercultural competence. The ability to adapt appropriate and effective communication and behavior in intercultural situations (Deardorff, 2011).

Opportunity gap. The disparity in access to educational resources, opportunities, and support can affect academic outcomes between white students and students of color (Feliz, 2020).

Self-efficacy. A personal belief in one's ability to achieve a goal or succeed in specific situations (Bandura, 1997).

Social justice leadership. Leadership focused on the importance of social justice to identify, examine, and remove the historical and current barriers that impact the academic and social success of students in schools (Canli, 2020).

Significance of the Study

Previous studies on multicultural education have greatly depended on quantitative surveys to measure teacher perception and rarely include observational tools to verify the connection between a teacher's willingness to include culturally responsive teaching strategies and the actual inclusion of these methods in the classroom (Abu-Tineh & Sadiq, 2018; Acquah et al., 2020; Cardona-Moltó et al., 2018; Clark, 2020; Spiess & Cooper, 2020). This study will add to current research through the combination of both quantitative classroom observations and qualitative teacher interviews to examine if the perceived improvement in understanding of culturally responsive pedagogy results in a change in professional practice. Organizations, businesses, universities, and schools invest billions of dollars per year in diversity training (Agovino, 2020), in many cases without a clear and accurate way to measure the lasting impact of this financial commitment. This research will investigate adult learning opportunities (Knowles, 1978; Knowles et al., 2020) through both quantifiable observational data and follow-up qualitative interviews to gain specific feedback about the teaching and coaching methods to analyze which factors had the most significant impact.

Overview of Research Methods

This study employed an explanatory sequential mixed method design (Creswell & Guetterman, 2019) to evaluate the impact of various components of equity and diversity training for educators to support the implementation of culturally responsive teaching in the classroom. The explanatory sequential mixed method design first gathers quantitative data to illustrate an overall picture of the research problem, followed by qualitative data collection to deepen the general quantitative information (Creswell & Guetterman, 2019).

Beginning with quantitative classroom observations, this study identified and measured increased implementation of culturally competent practices over time. This structured phase provided an empirical foundation for exploring the relationship between professional development components and teaching practices. The subsequent qualitative phase, consisting of interviews with first-year teachers, enriched the findings by capturing subjective experiences and insights. By combining the strengths of both quantitative and qualitative methods, this approach ensured a holistic examination of the research question. The explanatory sequential design allowed for a nuanced understanding of how the identified components align with andragogical principles, contributing to a robust exploration of the complex dynamics involved in integrating culturally competent instruction into classroom practice.

This research explored a new teacher orientation model focused on cultivating equitable educators within a large Western Washington suburban school district. The induction series supports more than 100 new educators annually and was developed through collaboration between the district-level Executive Director of Equity and Professional Learning and a team of district-level instructional coaches. The yearlong, monthly training series for new teachers placed a strong emphasis on culturally responsive teaching practices, equity, and social justice. As part of this model, novice teachers and those new to the suburban school district are paired with district instructional coaches who regularly visited their classrooms to model instructional strategies, observe teaching practices, and provide valuable feedback. All newly hired teachers in the district receive comprehensive training in coherent instruction, effective communication with students, discussion and questioning techniques, engaging students in learning, adaptability, responsiveness, and the use of assessment in instruction (Harris School District, 2022a). To recruit participants for this research, the researcher visited the new teacher orientation in August

2023. During this visit, an informative overview of the research procedures and purpose was be shared. A follow-up email, with a three-minute presentation, and a link to the informed consent (see Appendix E) was sent to determine participant interest and willingness to participate in the study.

Non-evaluative quantitative classroom observations were collected at the beginning of the school year and again four months later by district instructional coaches using the Culturally Responsive Instruction Observation Protocol (Powell et al., 2017) to measure the growth of culturally responsive teaching practices from September 2023 to January 2024. Culturally Responsive Instruction Observation Protocol (CRIOP) employs a five-point Likert scale: never, rarely, occasionally, often, and consistently to indicate the implementation of specific instructional strategies related to five major elements. These domains encompass classroom relationships, assessment practices, instructional practices, discourse/instructional conversation, and critical consciousness/diverse perspectives (Powell et al., 2017).

After reviewing the pre- and post-observational quantitative data gathered with the CRIOP tool, teachers who demonstrated the most growth in their operationalization of culturally responsive teaching practices were invited to identify the training components that impacted the increased implementation of equity-based professional practice. This qualitative information provided a more robust understanding of the professional development strategies that lead to culturally responsive teaching implementation (Creswell & Guetterman, 2019). One-on-one open-ended semi-structured qualitative interviews (Creswell & Guetterman, 2019) were conducted via Microsoft Teams.

Research measuring the effectiveness of professional development on culturally responsive teaching often relies on participants' self-reported level of confidence or

understanding (Brownsword, 2019; Doran, 2017; Dwyer & Smith, 2020; Kimanen et al., 2019; Miller, 2012; Moore et al., 2021). A less-studied area examines the transformative impact of these experiences on improving professional practice to create more equitable classrooms (Cardona-Moltó et al., 2018; Chu, 2019; Ragins & Ehrhardt, 2021; Riordan et al., 2019). The incorporation of observational data and the exploration of correlations with andragogical principles in relation to the impact of professional development on culturally responsive instructional strategies will contribute insights to the current body of literature.

Chapter II: Review of the Literature

Both state and national data point to educational inequality for historically underserved populations as illustrated by a lack of academic success (Feliz, 2020; Paschall et al., 2018; Reardon et al., 2019). Patterns of systemic racism embedded in the practices and policies of schools and society have contributed to this inequality (Banks, 2006; Feliz, 2020; Priest et al., 2021). Educational leaders must commit to identifying and dismantling the barriers that hinder the educational attainment of marginalized groups (Banks, 2006; Canli, 2020; Williams, 2018). Educators need effective diversity, equity, and inclusion training on how to facilitate the full participation of even our most vulnerable and disenfranchised students and families.

Education plays a pivotal role in equipping individuals with the knowledge, skills, and attitudes necessary to thrive in a rapidly evolving global society. As educational leaders design adult learning activities, their overarching goal is to facilitate lasting and meaningful improvements in professional practice (Darling-Hammond et al., 2017; Knowles et al., 2020; Merlin-Knoblich & Dameron, 2021; Riordan et al., 2019). Within the field of education, three interconnected constructs have emerged as essential in enhancing teaching and learning effectiveness: andragogy, culturally responsive teaching (CRT), and models of professional development (Darling-Hammond et al., 2017; Gay, 2018; Knowles et al., 2020). It is imperative for educators striving to create inclusive and effective learning environments for diverse adult learners to possess a comprehensive understanding of these concepts. However, a critical gap in the literature pertains to the measurement of the effectiveness and impact of equity-driven adult learning activities on transforming professional practice and establishing enduring improvements in the educational experiences of historically underserved and marginalized students (Cardona-Moltó et al., 2018; Chu, 2019; Ragins & Ehrhardt, 2021; Riordan et al., 2019).

To address this gap, there is a need for research that examines the transfer of equity-focused professional development to the practical implementation of culturally responsive teaching strategies in classroom settings, specifically through the utilization of observational data. Existing studies primarily rely on self-assessment surveys to gauge participants' self-perceived confidence and competence. This limited reliance on self-assessment measures fails to provide a comprehensive understanding of the actual integration and impact of culturally responsive instructional practices. Furthermore, the literature lacks sufficient exploration of the connections between the six assumptions of andragogy and professional development programs targeting diversity, equity, and inclusion for teachers. By bridging these gaps, educators can gain valuable insights into the efficacy of equity-driven adult learning activities and their potential to bring about sustained improvements in the educational environments of historically underserved and marginalized students (Cardona-Moltó et al., 2018; Chu, 2019; Ragins & Ehrhardt, 2021; Riordan et al., 2019).

Theoretical Framework

Effective teachers in diverse education environments continue to develop and benefit from adult learning opportunities that provide opportunities for life-long learning (Karakoc, 2021; Knowles et al., 2020). Andragogy emphasizes the psychological, social, and cultural characteristics, previous life-experience, and unique needs of adult learners (Karakoc, 2021; Knowles, 1977). Knowles popularized the term andragogy over 40 years ago in contrast to the term pedagogy, arguing that the former is the art and science of leading children and the latter is the art and science of leading adults (Aubrey & Riley, 2019; Houde, 2006; Knowles, 1978; Vandevort, 2021). Pedagogy is based on the foundation that learners are dependent on their instructors, andragogy on the other hand places a high value on the independence of the learners

and provides opportunities for self-directed education (Knowles, 1977). When adult learning

opportunities move from a pedagogical stance to one of andragogy, learners are more motivated

to learn (Aubrey & Riley, 2019; Houde, 2006; Knowles, 1978; Vandevort, 2021). Adult learners'

identities are shaped by their experiences, in contrast to children who have experiences

happening to them (Knowles et al., 2020). This understanding calls for responsive practices that

cater to adults' preferences and learning styles.

  Knowles' point of view and theoretical framework continued to evolve throughout his

life, starting with four key assumptions of andragogy and eventually expanding to six (see Figure

2). The first assumption highlights the importance of creating a sense of why the learning is

valuable to adult learners. Adults need to understand the relevance and applicability of the

knowledge being presented to their current life objectives. The second assumption focuses on the

self-concept of adult learners. As adults mature, they develop a sense of self-direction and

responsibility. They want to be treated as capable individuals who can make their own decisions.

The third assumption recognizes the significant role of prior experience in adult learning. Adults

bring a wealth of diverse backgrounds and experiences, which can be harnessed as a valuable

resource for learning. Engaging participants in both teaching and learning activities can enhance

the learning process. The fourth assumption relates to the readiness of adult learners to learn.

Adult learners have a clear understanding of what they need to learn and can identify content and

tasks that are relevant to their personal and professional lives. The fifth assumption highlights the

orientation to learning in andragogy. Adult learners are more focused on life-centered, problem-

solving, and task-based application rather than the subject matter itself. They prefer learning that

is immediately applicable to real-life situations. The sixth assumption revolves around the

motivation of adult learners. While external factors such as salary advancement or job

promotions can be motivating, internal factors such as self-respect and quality of life are more powerful drivers of adult learners' motivation (Aubrey & Riley, 2019; Karakoc, 2021; Knowles et al., 2020; Mews, 2020).

Figure 2

Andragogy: Core Adult Learning Principles
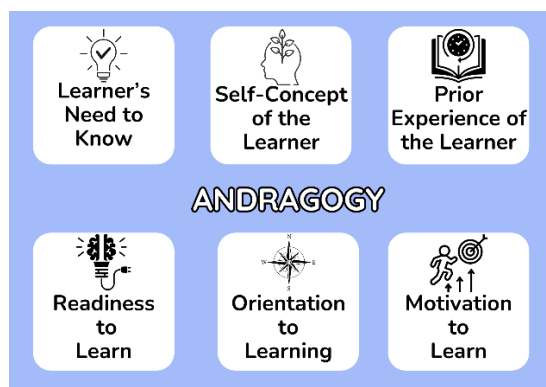
Note: Data from Knowles et al., 2020

One common theme in the literature is the application of andragogy in educational settings to bridge the education gap and promote effective learning. Bloom's taxonomy of educational objectives is highlighted as a framework to guide instruction and foster higher-order thinking skills among adult learners (Aheisibwe et al., 2021). Teacher preparation programs benefit from the integration of andragogy with working adult professionalism, recognizing the need to align educational practices with the expectations of adult learners (Anderson & Boutelier, 2021). Tailoring instructional approaches to enhance intrinsic motivation plays a foundational role in culturally responsive social-emotional and academic learning, effectively engaging adult learners from diverse cultural backgrounds (Duff, 2019; Ginsberg & Wlodkowski, 2019). Scholars discuss various interpretations and understandings of andragogy, acknowledging its complexity and diversity (Loeng, 2018). Andragogy encompasses a process that surpasses instructional strategies, actively involving the creation of inclusive and engaging

learning environments that cultivate a profound sense of belonging and community among adult learners (Note et al., 2021). Leading through andragogy actively empowers individuals, encourages collaboration, and cultivates a culture of continuous learning (Mews, 2020).

Invitational Andragogy

The emerging teaching philosophy of Invitational Andragogy focuses on creating an inclusive and supportive learning environment for adult learners. Tipton and Wideman (2021) explore the concept of Invitational Andragogy and articulate its principles and implications for the andragogic classroom. Traditional teaching approaches often fail to acknowledge the unique characteristics and needs of adult learners. Invitational Andragogy aims to address this gap by emphasizing the importance of creating a welcoming and supportive environment that recognizes and respects the autonomy of adult learners. This approach aligns with the principles of Invitational Education Theory, as well as the concepts of autonomy and self-determination proposed by Self-Determination Theory (Moss, 2018; Tipton & Wideman, 2021).

Invitational Andragogy promotes learner-centered instruction and encourages active participation and self-directed learning. Adult learners are seen as active agents in their learning process, and instructors act as facilitators and guides rather than mere transmitters of knowledge. The philosophy also recognizes the significance of fostering positive interpersonal relationships and establishing a sense of belonging and trust within the learning community (Tipton & Wideman, 2021). This resonates with the findings of Allen and FitzGerald (2017), who highlight the influence of care, equity, and inviting practices in creating a supportive classroom environment.

The implementation of Invitational Andragogy includes creating opportunities for meaningful dialogue and collaboration, encouraging learner autonomy and choice, providing

timely feedback and support, and promoting a culture of respect and inclusivity to empower

adult learners to take ownership of their learning and enhance their engagement and motivation

(Tipton & Wideman, 2021). The value of prior classroom experience in shaping a teacher's

identity, as discussed by Martin (2020), also intersects with Invitational Andragogy. Instructors

who have a deep understanding of the challenges and experiences of being a learner can draw

upon their own classroom experiences to create a more empathetic and supportive learning

environment for adult learners (Martin, 2020; Tipton & Wideman, 2021).

Trauma-informed Andragogy

Trauma-informed andragogy, a framework that acknowledges and addresses the impact

of trauma on adult learners, is a crucial approach in adult education. This approach recognizes

the diverse effects of trauma on cognition, learning, and emotional well-being. By creating a safe

and inclusive learning environment, educators practicing trauma-informed andragogy aim to

support the unique needs of learners who have experienced traumatic experiences (Davidson,

2021; Housel, 2020). Trauma-informed care includes five fundamental principles: safety, trust,

choice, collaboration, and empowerment (Davidson, 2021).

The first principle of trauma-informed care is safety, which entails creating an

environment free from harm and danger. It involves providing physical safety, as well as

emotional safety. The concept of safety has been critiqued, as an overemphasis on it may

suppress emotions and hinder genuine engagement (Davidson, 2021). Educators must prioritize

the establishment of a safe and supportive space for learners. This includes setting clear

boundaries, maintaining confidentiality, and fostering a culture of respect and empathy to create

an environment where learners feel physically and emotionally secure, enabling them to engage

in the learning process with confidence (Davidson, 2021; Note et al., 2021; Tipton & Wideman, 2021).

Trust must be developed over time in a trauma-informed classroom. Teachers should establish trust through consistent and reliable actions, clear instructions, and authentic interactions (Davidson, 2021; Dunn et al., 2021; Ginsberg et al., 2021). Providing adult learners choice empowers individuals through decision-making (Davidson, 2021; Housel, 2020). In trauma-informed professional development, providing participants with options in assignments, due dates, and learning formats allows them to build and maintain a sense of control (Davidson, 2021; Dewsbury & Brame, 2019; Hobbs et al., 2021). Including opportunities for collaboration, the fourth principle, recognizes that trauma survivors may have experienced situations where their choices were taken away, making collaborative decision-making essential (Davidson, 2021; Housel, 2020). In a trauma-informed learning environment, students can actively participate in shaping the learning experience by contributing to discussions, providing feedback, and suggesting modifications to assignments (Davidson, 2021; Ginsberg et al., 2021; Longerbeam & Chávez, 2021). Empowerment plays a crucial role in trauma-informed andragogy, promoting self-efficacy and belief in one's capacity to overcome challenges. Empowerment is fostered through reflection, praxis, liberative approaches to education, and recognizing the strengths and contributions of learners (Davidson, 2021).

Culturally Responsive Pedagogy

To transform instructional practices and improve outcomes for adult learners, it is crucial to shift from a deficit model thinking to a strengths-based approach such as Culturally responsive pedagogy (Housel, 2020). Culturally relevant pedagogy (CRP), as originally formulated by Ladson-Billings (1995), consists of three fundamental propositions: academic

achievement/student learning, cultural competence, and socio-political/critical consciousness. All three elements must be present for an approach to be considered culturally relevant pedagogy. Academic achievement/student learning serves as the core of teaching and learning. It goes beyond a mere focus on content coverage or performance on standardized tests. CRP emphasizes students' academic growth throughout the academic year, measuring the progress made between their initial knowledge and abilities when they enter the classroom in the fall and their knowledge and abilities when they leave in the spring. The goal is to foster genuine student learning and progress (Ladson-Billings, 2021a).

Cultural competence represents a crucial but often misunderstood aspect of CRP. Many educators mistakenly believe that including superficial aspects of diverse cultures is sufficient to demonstrate cultural competence. True cultural competence requires students to feel secure in their understanding of their own culture, including histories, language, traditions, and more. Students should develop fluency and familiarity with at least one other culture, typically the mainstream culture for minoritized students. Cultural competence is not limited to minoritized students; all students need to develop this competence as they will inevitably engage with a diverse and multicultural world (Ladson-Billings, 2021a).

The socio-political/critical consciousness element of culturally relevant pedagogy is often neglected or overlooked. Culturally relevant teachers empower students to challenge existing power structures, utilize their cultural background to derive meaning from the curriculum, and relate their personal experiences to broader societal concerns. By adopting a problem-centered approach to learning, CRP encourages critical thinking and discourages the assignment of disconnected busy work. Teachers should consistently incorporate CRP strategies and practices

in their classroom instruction to create a learning environment that is attuned to students' race, ethnicity, and culture (Ladson-Billings, 2021a).

Culturally relevant pedagogy aligns well with andragogical strategies, allowing educators to base classroom instructions on adult students' lived experiences and prior knowledge. By leveraging the positive aspects of learners' life experiences, culturally responsive educators can enhance their learning. An innovative approach to preservice training and in-service professional development for educators of adult learners could involve combining CRP with andragogy. This combined approach can promote teachers' feelings of self-efficacy in differentiating instruction and implementing student-centered andragogical practices (Housel, 2020; Knowles et al., 2020; Ladson-Billings, 2021a).

Culturally Responsive Teaching

Culturally responsive teaching (CRT) has been defined by numerous scholars over the years. One of the primary scholars, Gay (2018) defined CRT as "using the cultural knowledge, prior experiences, frames of reference and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them" (p. 31). Culturally responsive pedagogy (CRP) focuses on identifying and incorporating students' cultural backgrounds, strengths, and experiences to create meaningful and effective learning experiences in a classroom (Acquah et al., 2020; Allen & FitzGerald, 2017; Gay, 2018; Ladson-Billings, 2021b; Shorb, 2021; Villegas & Lucas, 2002). Currently, there is a disjointed and superficial inclusion of diversity instruction and pedagogy in the field of education, teacher educators must create, communicate, and implement a systematic vision of incorporating multicultural issues throughout the curriculum (Villegas & Lucas, 2002). It is not realistic to expect preservice teachers to emerge from their university experience fully prepared with the complex and vast

skill set and pedagogical knowledge of a culturally responsive teacher. With time, experience, and a commitment to grow their professional practice based on a clear vision of the characteristics of an equity-focused social justice educator, novice teachers can adapt their teaching to diverse students and populations (Byrd, 2021; Chang et al., 2019; Dover, 2015; Kelly & Djonko-Moore, 2022; Longerbeam & Chávez, 2021; Villegas & Lucas, 2002). Regular meaningful interactions such as observations, collaboration, and guided feedback from seasoned culturally responsive teachers, firsthand opportunities to serve in diverse school communities, and facilitated guided reflection all provide valuable support on the journey to cultural competence (Villegas & Lucas, 2002; Young et al., 2018).

Cultural competence is a set of corresponding attitudes, behaviors, and policies that come together to empower a professional, agency, or system to work effectively in cross-cultural situations (Álvarez Valdivia & González Montoto, 2018; Anderson & Fees, 2018; Cross, 2012; Williams, 2018). As educators progress toward a more open and accepting view of the diversity of the students they serve, often there are struggles along the Cultural Competence Continuum as outlined by Cross (2012). At one end of the continuum is cultural destructiveness or the desire to eliminate or destroy the culture of another (Cross, 2012). For others, there may be an unwillingness to support minority communities or cultural incapacity (Cross, 2012). As people move toward a cultural blindness level, they may have an ethnocentric, deficit view of others that encourages assimilation (Cross, 2012), a concept sometimes referred to as being colorblind (Annamma et al., 2017; Aragón et al., 2017; Brown-Jeffy & Cooper, 2011; Mitchell, 2020). With adequate training and support, educators can become fully prepared to support students of color through progression to the final two points on the continuum, cultural pre-competence, which involved demonstrating respect and acceptance of differences and ultimately, advanced cultural

competence, which entails holding different cultures in high regard and seeking to deepen understanding of others, resulting in educational equity (Cross, 2012).

In their 2019 study, Chu examined the content of the 2015 *Every Student Succeeds Act* (ESSA) plans from 52 approved state educational agencies and discovered that only seven states provided a definition of "equity," most of which focused on equitable opportunity and access to necessary educational resources needed to experience school success. This lack of common understanding about equity in education could contribute to a state-by-state, school-by-school continuation of the structural opportunity gap for students of color, English learners, and families experiencing poverty (Allen & FitzGerald, 2017; Cardichon et al., 2020; Chu, 2019; Kirksey et al., 2020; Williams, 2018). States should utilize the autonomy provided by ESSA to research and implement community-initiated research-based programs to recruit, train, and retain a more diverse workforce, resulting in more equitable learning experiences for students (Chu, 2019; Dobbin & Kalev, 2017; Paschall et al., 2018).

Redesigning College Level Coursework

Over the last few decades, promising theories, and pedagogical paradigms such as culturally responsive teaching, multicultural education, and social justice, have emerged, and become a critical component of teacher education programs (Longerbeam & Chávez, 2021; Ukpokodu, 2020). Based on the increasing diversity of the population in the United States, the achievement disparity between demographic groups of students, the cultural and ethnic incompatibility between teachers and the students they serve, and the necessity to prepare highly culturally competent teachers, professional groups, and educational scholars have promoted these conceptual frameworks (Banks, 2013; Gay, 2018; Howard, 2019; Ladson-Billings, 2021b; Ukpokodu, 2020). There is an ever-growing global interest in better preparing classroom

teachers to serve in classrooms that are becoming more culturally and linguistically diverse
(Brownsword, 2019; Cardona-Moltó et al., 2018; Moore et al., 2021). When teachers are
equipped with the motivation, confidence, and tools to create equitable and inclusive classrooms,
students from marginalized communities demonstrate higher levels of academic achievement,
motivation, self-confidence, and self-efficacy (Acosta & Duggins, 2021; Allen & FitzGerald,
2017; Barnett, 2020; Parkhouse et al., 2019). Teacher preparation programs do not have a
consistently applied educational model for how this work might be effectively implemented
(Acosta & Duggins, 2021; Anderson & Fees, 2018; Cormier, 2021; Moore et al., 2021;
Parkhouse et al., 2019). Despite the increase in the quantity of diversity-focused coursework,
researchers need to further investigate the long-term impact on teaching practices and student
outcomes (Parkhouse et al., 2019). Redesigned university-level, teacher certification curricula
should include active learning, opportunities for collaboration, reflection, and feedback, to
ensure equity and inclusion (Villegas & Lucas, 2002; Williams, 2018).

Cultural Contexts

An international study conducted by Cardona-Moltó et al. (2018) examined to what
extent preservice teachers are given the opportunity to gain experience in how to implement
inclusive instructional practices to serve the needs of culturally diverse classrooms. Brownsword
(2019) also conducted an international study to explore why preservice teachers did not feel
prepared to serve in ethnically diverse classrooms. The results of both studies emphasize the
importance of examining the cultural context of educational settings and the regional, state, or
national influence on the quality and quantity of impactful diversity and inclusion coursework
for preservice teachers (Brownsword, 2019; Cardona-Moltó et al., 2018). Participants suggested
that more information about specific cultures, nationalities, and religions likely to be present in

their school populations would better prepare them to serve in multicultural classrooms
(Brownsword, 2019; Cardona-Moltó et al., 2018).

Compositional Diversity

A college program or campus exhibits compositional diversity based on the number and
proportional representation of different racial and ethnic groups present (Milem et al., 2005).
Graduate schools are increasingly focused on enhancing compositional diversity through
recruitment efforts aimed at increasing the number of women, students of color, or people who
identify as part of the LGBTQ community (Perez et al., 2020; Sawyer & Waite, 2021). This
appearance of prioritizing diversity, equity, and inclusion efforts does not always transfer into
coursework or the treatment of individuals (Barnett, 2020; Kivlighan, 2008; Perez et al., 2020;
Sawyer & Waite, 2021). Graduate students experience limited discussions of equity, diversity,
and inclusion (EDI) in many academic departments beyond recognizing the need for expanding
compositional diversity (Perez et al., 2020). This lack of EDI engagement includes experiences
in courses, departmental gatherings, and interactions with faculty. The minimal demonstration of
EDI creates a sense of tokenization and marginalization (Perez et al., 2020; Sawyer & Waite,
2021). Graduate programs need to demonstrate and define a genuine commitment to EDI,
acknowledge and respect the social identities of diverse individuals, and to better develop
university-wide EDI processes, policies, and practices (Perez et al., 2020; Sawyer & Waite,
2021). Many graduate students choose to enhance their coursework through participation in
identity-centered student organizations or additional courses or programs (Dwyer & Smith, 2020;
Perez et al., 2020). Supportive departments and faculty play a critical role in advocating for and
supporting diverse students (Perez et al., 2020; Sawyer & Waite, 2021) just as the equity-based
leadership practices of building leaders have a positive impact that results in a clear school vision

and targeted support for teachers based on high-performance standards (Akman, 2020; Aragona-Young & Sawyer, 2018; Canli, 2020).

Multiculturialism

Multiculturalism may be discussed in teacher education programs, yet teachers often still feel uncertain and unprepared to effectively support cultural diversity in the classroom (Acquah & Commins, 2017; Acquah et al., 2020; Cantrell et al., 2023). Researchers have investigated the practices and impact of redesigning university-level curricula with a commitment to improving the education and training of K-12 school candidates with a focus on creating more culturally competent leaders prepared to serve in diverse contexts (Acosta & Duggins, 2021; Acquah & Commins, 2017; Acquah et al., 2020; Williams, 2018). A multiphase model of examining and improving college coursework focused on equity and diversity includes: organizing for collective work, examining capacity for cultural competence, defining cultural competence and key indicators, redesigning curriculum and pedagogy, and evaluating the impact of the redesign work (Williams, 2018). This need for ongoing opportunities for practice and collaboration around refining educator thinking about cultural competence emerged as a common theme in multiple studies (Cavendish, Barrenechea et al., 2021; Senyshyn & Martinelli, 2021; Szelei et al., 2020; Williams, 2018).

Pulling from a combination of previous experience, intuition, theory, and pedagogical practice recognized as effective in focusing on diversity with preservice teachers, Acquah and Commins (2017) designed a model for multicultural education during a 12-week elective multicultural education course. Their research explored the effectiveness of specific elements of a multicultural teaching model in developing the cultural competence of teacher candidates. This model incorporated instructional approaches and theoretical frameworks centered on previous

work on cultural competence (Banks, 2013; Gay, 2015; Ladson-Billings, 1995) as well as

transformative learning (Mezirow, 1997). By the end of this 12-week course, participants

indicated a substantial gain in knowledge about and experiences with issues of diversity

highlighting multiple beneficial instructional methods incorporated in the class, including small

group activities, course content and readings, lectures, and opportunities for reflection, which

challenge previously held biases and beliefs. Additionally, participants reflected that the

diversity of their classmates paired with the personal interactions and opportunities for dialogue

contributed to a deepened understanding of cultural competence (Acquah & Commins, 2017).

The incorporation of small group activities allowed participants to engage in collaborative

learning experiences where they could actively exchange ideas and perspectives with their peers.

Small group discussions promote meaningful interactions and deepened understanding of

complex topics (Cavendish, Barrenechea et al., 2021; Kimanen et al., 2019; Merlin-Knoblich &

Dameron, 2021).

Culturally Relevant Course Content

The use of culturally relevant course content was another key element in the instructional

design of the course in promoting cultural competence and enhancing students' understanding of

diverse perspectives (Acosta & Duggins, 2021; Bell et al., 2022; Carter Andrews, 2021). Self-

reflection was also identified as a beneficial instructional method in the course. Opportunities for

reflection allowed participants to critically examine their own beliefs, biases, and assumptions,

leading to a greater awareness of their own cultural competence (Acquah & Szelei, 2020;

Aragona-Young & Sawyer, 2018; Hudson, 2020; Johnson et al., 2021; Leckie & Buser De,

2020). The diversity of classmates and the personal interactions and dialogue within the course

contributed to the deepened understanding of cultural competence reported by the participants.

Cross-cultural dialogue benefits participants through interactions that foster cultural competence and promote understanding among individuals from diverse backgrounds (Abaciogu et al., 2020; Acquah & Szelei, 2020; Merlin-Knoblich & Dameron, 2021).

To promote student success in increasingly diverse classrooms, teacher preparation programs must increase the ability of preservice teachers to adapt their instructional practices related to various educational needs (Gay, 2002; Villegas & Lucas, 2002). Keppens et al. (2021) examined student teachers' professional vision of inclusive classrooms defined as the "ability to notice and reason about classroom events that are crucial for effective inclusive teaching" (Keppens et al., 2021, p. 1091). This research explored student teachers' professional beliefs about diversity and self-efficacy and specifically focused on two primary dimensions of successful inclusive classrooms: teacher-student interactions and differentiated instruction (Keppens et al., 2021). Participants demonstrated more proficiency in identifying differentiated instruction than knowledge about teacher-student interaction. Research findings indicate that student teachers demonstrated a less developed ability to accurately recognize inclusive teaching practices compared to more experienced educational practitioners. While participants exhibited a similar level of interpretation of classroom events related to teacher-student interactions and differentiated instruction as experts, suggesting a degree of preparedness from teacher education programs, their accurate identification of inclusive practices was not as advanced. These results, from the Keppens et al. (2021) study, support previous assertions made by Riordan et al. (2019) that primary education courses prioritize pedagogy over the specific development of inclusive instructional skills.

Professional Development for Teachers

Teacher preparation programs frequently fall short of adequately preparing future educators in the mindset and skill development required to address the achievement and opportunity gap experienced by historically marginalized students (Kwok et al., 2021; Riordan et al., 2019; Spiess & Cooper, 2020). In their extensive analysis of teacher preparation programs, Kwok et al. (2021) discovered a significant lack of emphasis on culturally responsive pedagogy, a critical component for effectively addressing the diverse needs of students from various cultural backgrounds. This gap in training can hinder future educators' ability to connect with and engage marginalized students, perpetuating the persistent disparities in achievement and opportunities. Although many teacher preparation programs provide theoretical knowledge on equity and social justice, practical strategies for closing the gap are insufficiently addressed (Riordan et al., 2019).

Without concrete skills and strategies to create inclusive classrooms and tailor instruction to the needs of marginalized students, teachers may struggle to make a meaningful impact (Cantrell et al., 2023). In line with these findings, Spiess and Cooper (2020) found that new teachers often felt unprepared to meet the needs of marginalized students due to deficiencies in their training, such as the lack of culturally responsive pedagogy and understanding of systemic inequalities. The absence of such preparation can impede educators' ability to promote equity and effectively close the achievement and opportunity gap for historically marginalized students. To effectively address these shortcomings, teacher preparation programs must integrate comprehensive and ongoing training that equips educators with the necessary mindset and skills to create inclusive learning environments and support the academic success of all students (Kwok et al., 2021; Riordan et al., 2019; Spiess & Cooper, 2020).

Professional development designed for practicing teachers may lack the content and engagement needed to support the advancement of social justice-minded educational leaders (Aronson, 2020; Byrd, 2021; Dixson, 2021; Lumadi, 2020; Riordan et al., 2019). Based on their observations and findings, Riordan et al. (2019) identified four critical components needed for effective learning in professional development: content focused on equity and critical pedagogy, modeled instructional with opportunities for active engagement, the creation of a culture of examination and a commitment to deeper learning, and inclusion of students' voice to determine the impact of the professional learning.

Intersectionality Framework

Several studies report the effective use of an intersectionality framework designed for teachers to address the dissimilarity between the ethnic and racial demographics of increasingly diverse student bodies and the cultural background of the primarily White teachers who serve them. This framework incorporated the matrix of privilege and oppression to analyze the current and historical power dynamics associated with race, gender, social class, language, and religion (Boveda et al., 2019; Croom, 2020; Leckie & Buser De, 2020; Pledger, 2018; Singh, 2022). The facilitation, creation, and sharing of individual cultural identity narratives of teachers has been effectively used to analyze educators' backgrounds and lived experiences to examine interpersonal relationships to positively influence teachers' work with ethnically and linguistically diverse students. The conversations around participants' experiences created connections, personal reflection, and implications for future professional practice. This deepened awareness of a participant's own privilege and oppression can build connections with others in similar situations, impacting decision-making for teachers working in diverse communities (Leckie & Buser De, 2020; Singh, 2022). After engaging in the self-reflection and identification

of one's cultural background and lived experiences, teachers are more likely to interact with increased cultural sensitivity toward individuals with diverse backgrounds and connect with the students they serve (Gay, 2018; Johnson et al., 2021; Leckie & Buser De, 2020; Singh, 2022).

Andragogy, the theory of adult learning, provides a relevant framework that aligns with the importance of self-directed learning and the integration of prior experiences (Knowles et al, 2020). It acknowledges that when developing cultural competence, introspection and reflection are essential tools for exploring issues such as race, privilege, and intersectionality, as well as identifying biases and areas for improvement (Acquah & Commins, 2017; Chávez et al., 2020; Knowles et al., 2020; Singh, 2022). Autobiographical reflection for an adult learner requires a subject to be reflective about previous experiences and learning that has led to bias that may need to be acknowledged to allow for new learning (Hayes, 2022; Knowles et al., 2020). Similarly, both Banks' (2006) and Acquah and Commins' (2017) investigations of effective curriculum multicultural interventions also pointed to the use of personalized stories about diverse racial and ethnic groups to reduce prejudice. Educators must be willing to engage in uncomfortable conversations, confronting topics like white privilege and racial discrimination, as a step toward dismantling historic systems of oppression (Dunn et al., 2021; Hudson, 2020; Sawyer & Waite, 2021; Singh, 2022).

Self-Efficacy

With the rapidly shifting demographics in our country, moving toward a more diverse school population, teachers must be prepared to instruct students who bring an increasing amount of cultural and linguistic backgrounds into the classroom (Cantrell et al., 2023; Clark, 2020). Within multicultural classrooms, the self-efficacy of teachers for supporting inclusive attitudes

and practices toward culturally responsive education may be significant antecedents in including specific teaching styles and influencing teacher behavior (Buzzai et al., 2022).

Educators' ability to perform their job effectively is greatly influenced by self-efficacy, which can be improved through professional development (PD), a key intervention that impacts educators' confidence in supporting and teaching diverse students (Buzzai et al., 2022; Choi & Lee, 2020; Clark, 2020; Lu et al., 2022; Pledger, 2018). In 2020, Clark focused on the self-efficacy level of preservice teachers regarding reading instruction and diversity/multicultural education. According to Clark (2020), PD programs that focus on building educators' skills and knowledge in specific areas can enhance their task-specific self-efficacy, while PD programs that address broader educational issues can enhance their general self-efficacy. The results showed that the participants felt most confident about their preparedness to implement specific reading strategies and resources, but less confident about adapting instruction for students with mixed abilities or special needs. The quality of coursework was identified as a key factor in enhancing preservice teachers' self-efficacy. In contrast, Buzzai et al. (2022) found that self-efficacy for inclusive practices significantly predicted positive attitudes toward multicultural education and effective teaching styles. These results suggest that educators with higher self-efficacy in inclusive practices are more likely to create learning environments supportive of multicultural students and their academic success. Both studies underscore the importance of teacher education programs in enhancing self-efficacy and effective teaching practices for diverse students. Clark (2020) highlights the significance of quality coursework in building preservice teachers' confidence in reading instruction and diversity/multicultural education, while Buzzai et al. (2022) highlight the importance of self-efficacy for inclusive practices in promoting positive attitudes toward multicultural education and effective teaching styles.

Duration of Time in Coursework

Educational researchers continue to grapple with determining the ideal length and content of effective diversity training (Darling-Hammond et al., 2017; Dwyer & Smith, 2020; Hudson, 2020; Johnson et al., 2021; Kumar & Lauermann, 2018; Sims & Fletcher-Wood, 2021). Although most colleges require students to participate in diversity training, this expectation does not necessarily correlate with the reality that the instructors of these courses have had previous specialized training to prepare them to effectively deliver content or create learning environments that will successfully mitigate the issues of inequity and racism (Dwyer & Smith, 2020; Hudson, 2020; Perez et al., 2020). University leadership must provide ongoing equity, diversity, and inclusion (EDI) training to department chairs, faculty, and staff and then evaluate the frequent implementation of this commitment to support the diversity of graduate students (Perez et al., 2020)

There are contradictory findings in the research about the optimal length of diversity training. A review of these studies highlights the importance of the content and structure of the training as a critical factor beyond the time spent learning about inclusionary practices. Dwyer and Smith (2020) examine the impact of a 75-minute mandatory workshop. Johnson et al. (2021) studied an intensive, month-long professional development experience, which incorporated collaborative workshops and discussions facilitated by leading scholars. Hudson (2020) explored the impact of a five-month comprehensive university faculty diversity training, Teaching Inclusion and Diversity Everywhere (TIDE). Kwok et al. (2021) looked at the impact of a teaching program over the course of three semesters and two studies examined the effectiveness

of 3-year university-based teacher preparation programs (Kumar & Lauermann, 2018; Senyshyn, 2018).

Dwyer and Smith (2020) explored the impact of a 75-minute, mandatory diversity and inclusion workshop designed for 189 full-time teaching staff at the university level. This introduction to diversity and inclusion included microaggression analysis, inclusive teaching strategies, and the use of racially charged classroom scenarios. Based on a comparison of the pre- and post-assessment responses and a follow-up survey sent a year after the workshop, data pointed to statistically significant improvement related to diversity-related terminology, conversely, the question about addressing racist interactions in the classroom showed the least progress. In the year following the workshop, participants maintained or experienced growth in their confidence to address racist language and implement more inclusive teaching practices. Based on only surface-level improvements to participants' vocabulary around diversity and lack of evidence related to measurable changes in instructional strategies, the results of this 75-minute training are in alignment with the findings of Cavendish, Barrenechea et al., (2021) that deepening educators' understanding of social and historical issues, as well as culturally responsive pedagogy (CRP), must take place in a richer context than a one-day workshop or pre-packaged curriculum (Dwyer & Smith, 2020). At the end of an intensive, month-long, residential cultural competence-focused training experience, hosted at three African American history museums, Johnson et al. (2021) wondered if there was such a thing as 'too long' for a fully immersive diversity training, possibly resulting in participant fatigue.

Hudson (2020) explored the impact of a five-month comprehensive university faculty diversity training, Teaching Inclusion and Diversity Everywhere. Sessions included topics focused on the need for diversity training in higher education, why teachers and students are

afraid to talk about race, reports from students of color about their negative experiences on campus, and personal social identity. Participants learned about microaggressions, colorblindness, White privilege, engaging in courageous conversations about race, and inclusive teaching behaviors and strategies. Follow-up meetings and trainings took place over the course of five months. The data from Hudson's (2020) research validates findings from multiple scholars indicating that repeated opportunities, over time, to learn about diversity, engage in implementing effective culturally competent teaching strategies, and collaborate with other educators through critical conversations and self-reflection can positively impact participants' commitment to equity-focused teaching (Acquah & Szelei, 2020; Aragona-Young & Sawyer, 2018; Darling-Hammond et al., 2017; Hudson, 2020; Johnson et al., 2021; Kishimoto, 2018; Leckie & Buser De, 2020).

Kwok et al. (2021) explored teacher candidates' understandings of diversity and equality, and how these beliefs changed over time and participation in a teacher preparation program. Participants expressed a deepening of their cultural awareness understanding upon completing their three-semester teacher education program. Further implications from the Kwok et al. (2021) study included the need to include diversity training across multiple courses and disciplines throughout teacher preparation programs as previously stated by Darling-Hammond et al. (2017).

Kumar and Lauermann (2018) focused on several key objectives including the connection between the amount of time and number of multicultural courses completed, including a required Social and Democratic Society course, preservice teachers' experience in a teacher preparation program, their beliefs about students with diverse backgrounds and their endorsement of instructional practices that support students' social and academic growth. Additionally, they looked at factors that may reduce bias and increase comfort when interacting

with individuals who are viewed as different from themselves. A significant finding from Kumar and Lauermann's 2018 research is the number of diversity-focused courses taken by a preservice teacher is related to instructional beliefs that support student success in culturally diverse schools. This confirmed research by others that multiple courses over several years provide repeated opportunities for teachers to confront and reflect on their own biases and belief systems (Brownsword, 2019; Cavendish, Barrenechea et al., 2021; Darling-Hammond et al., 2017; Kwok et al., 2021). Additionally, the more time preservice teachers participated in the teacher preparation program, the more likely they were to adjust their instructional practices to better meet the need of diverse learners and less likely to report discomfort in instructing and interacting with students they viewed as different from themselves. Further findings suggest that education students who express a biased view of minority students are less likely to feel a strong responsibility to develop cultural competence and adapt instruction to meet the needs of diverse students (Kumar & Lauermann, 2018).

Senyshyn's (2018) study outlined the results of a three-year project designed to create meaningful intercultural experiences for undergraduate education majors to interact with first-semester international students. As with several other studies, the content and structure of the coursework were more critical indicators of successfully improving the intercultural competence of future teachers than the length of time in the program. The claim that professional development must include sustained duration may need to be revised, the length of the training is not as important as repeated practice and multiple exposures to meaningful content (Sims & Fletcher-Wood, 2021).

Guided Support of Multicultural Education Development

As teachers transition from preservice to practicing, the support and mentorship of professors, cooperating teachers, and field supervisors are no longer easily accessible. Effective development of multicultural education requires comprehensive support systems for teachers, including mentoring, modeling, and coaching. These studies are similar in that they all focus on the concept of guided support in the context of multicultural education development. While each study approaches the topic from a unique perspective, they collectively contribute to the understanding of the importance of supportive systems in promoting inclusive educational practices (Abu-Tineh & Sadiq, 2018; Acquah et al., 2020; Acquah & Szelei, 2020; Butz et al., 2019; Bybee et al., 2021; Cavendish, Barrenechea et al., 2021; Holliday, 2021; Shorb, 2021).

Mentoring

Mentoring holds a crucial position within various educational contexts, and extensive research has been conducted to examine its effectiveness and identify the factors that contribute to successful mentoring relationships. Several common themes have emerged from these studies, underscoring the significance of cultural relevance, addressing diversity issues, and promoting anti-racism education in mentoring. These findings emphasize the need for mentors to be sensitive to the cultural backgrounds and experiences of their mentees, while also equipping them with the skills and knowledge necessary to navigate diverse educational contexts and address issues of racism and inequality. By implementing these principles, mentoring programs can foster inclusive learning environments that promote the educational and personal growth of mentees (Bergner, 2021; Burgess et al., 2022; Bybee et al., 2021; Clark, 2020; Garte & Kronen, 2020; Sánchez et al., 2021).

By aligning mentoring practices with the cultural backgrounds and experiences of the mentees, educational experiences can be enhanced, leading to a stronger sense of belonging (Abu-Tineh & Sadiq, 2018; Burgess et al., 2022; Cavendish, Perez et al., 2021; Garte & Kronen, 2020; Ragoonaden & Mueller, 2017). Incorporating cultural relevance into mentoring relationships increases the likelihood of success (Burgess et al., 2022; Cavendish, Perez et al., 2021; Garte & Kronen, 2020; Ragoonaden & Mueller, 2017). Garte and Kronen (2020) advocate for the implementation of culturally relevant pairing in mentoring relationships involving community college pre-service teachers. Their research emphasizes the active engagement of mentors in aligning their practices with the cultural backgrounds and experiences of the mentees. By doing so, mentors contribute to enhancing educational experiences and promoting a stronger sense of belonging for the mentees.

Studies by Ragoonaden and Mueller (2017) and Burgess et al. (2022) emphasized the importance of incorporating cultural relevance and decolonization in education, particularly related to Indigenous knowledge and experiences through a mentoring model. Burgess et al. (2022) concentrated on the decolonization of Indigenous education and the role of cultural mentoring in supporting the reproduction of Indigenous knowledge. This research highlighted the significance of mentoring relationships in fostering cultural continuity, supporting Indigenous students in reclaiming and preserving their cultural heritage. They argued that cultural mentoring provides a space for Indigenous students to connect with their identity, culture, and traditional knowledge systems within an educational context that historically marginalizes their perspectives. Their work stressed the importance of incorporating cultural relevance in mentoring relationships, specifically focusing on the cultural backgrounds and experiences of Indigenous students (Burgess et al., 2022; Ragoonaden & Mueller, 2017).

The exploration of addressing race, ethnicity, and cultural relevance in mentoring relationships is significant. Many mentors are extrinsically motivated to focus on these aspects, while others lack the motivation or ability to address them. This unwillingness or inability to acknowledge race or ethnicity may be perceived by trainees as a neglect of their identity or cultural experiences. These challenges are particularly salient in cross-cultural partnerships (Butz et al., 2019). Mentors play a crucial role in actively promoting diversity and combating systemic inequalities within educational settings (Bergner, 2021; Butz et al., 2019; Sánchez et al., 2021). Bergner (2021) examined the concept of "white fragility" and highlighted the role of anti-racism training in combating it. The study emphasized the importance of mentors possessing the necessary knowledge and skills to effectively address racism. Sánchez et al. (2021) focused on the importance of anti-racism education and training for adult mentors working with Black, Indigenous, and People of Color (BIPOC) adolescents. Mentors needed to possess a deep understanding of systemic racism, exhibit cultural competence, and be equipped with strategies to address racial inequalities in educational settings (Bergner, 2021; Sánchez et al., 2021).

Guided support, including undergraduate research experiences, culturally relevant pairing, and problem-based teacher-mentor education holds transformative potential (Bybee et al., 2021; Garte & Kronen, 2020; Hartman et al., 2018). They demonstrate the power of these approaches in fostering critical consciousness, empowering students through their cultural identities, and promoting collaborative and inquiry-based learning. Abu-Tineh and Sadiq (2018) indicated teachers perceived the mentorship of novice teachers through professional support provided by experienced teachers as the most effective model of professional development. Pre-service teachers' engagement with critical multicultural education, influenced by supplemental training beyond the required class format has been found as beneficial and necessary for gaining

a multicultural lens aimed at dismantling educational inequalities (Bybee et al., 2021; Civitillo et al., 2018). Pre-service teachers who participated as student co-researchers garnered a deepened sensitivity, investment, and awareness of social justice issues beyond what was presented in the introductory multicultural education course (Bybee et al., 2021). Education students supported by mentors committed to building a positive relationship, experience improved on-going and future cross-cultural personal interactions as well as a deepened appreciation and understanding of the critical need to commit to educational equity (Butz et al., 2019; Bybee et al., 2021; Ragoonaden & Mueller, 2017; Weisling & Gardiner, 2018). Preservice teachers' participation in student-directed multicultural education research projects encourages engagement in the larger community and an opportunity to extend their learning beyond the classroom walls (Bybee et al., 2021; Orellana & Chaitanya, 2020; Osai et al., 2021).

Modeling Culturally Responsive Teaching

Acquah et al. (2020) and Acquah and Szelei (2020) conducted studies that explored the significance of modeling culturally responsive teaching (CRT) and its impact on preservice teachers' learning experiences. These studies were complemented by research on coaching to address discipline disparities conducted by Bradshaw et al. (2018), Gladney et al. (2021), Pas et al. (2016), and Vincent et al. (2011). In the first study, Acquah et al. (2020) revealed that 63% of participants recognized and reflected on CRT modeling in a multicultural course, which positively influenced their personal learning and future practice as educators. The results highlighted how preservice teachers acquired a firsthand comprehension of a culturally responsive classroom environment, characterized by student support, empowerment, and the development of a sense of community (Acquah et al., 2020).

The second study conducted by Acquah and Szelei (2020) focused on the experiences of two preservice teachers to assess the impact of explicit CRT modeling on their personal and professional attitudes and commitment to effectively serving diverse students. The data analysis revealed three primary themes: self-discovery and a deeper understanding of diversity, reevaluation of previous experiences and knowledge, and the integration of new learning into future instructional practices. Participants emphasized the importance of modeling CRT through creating safe environments for self-reflection and open dialogue, engaging in group discussions and collaboration, participating in field experiences, studying relevant readings, and genuinely caring for students. These learning opportunities transformed the participants' perspectives on the role of teachers in education and solidified their commitment to implementing activities and curricula that emphasize a strength-based model of diversity (Acquah & Szelei, 2020). These findings highlight the effectiveness of andragogy in promoting preservice teachers' commitment to a strength-based model of diversity (Acquah & Szelei, 2020; Acquah et al., 2020; Knowles et al., 2020).

Coaching to Reduce Disparity

The discipline gap can be defined as the disproportionate number of disciplinary referrals as well as more significant consequences such as suspensions issued to students of color (Shores et al., 2019; Vincent et al., 2011). Exclusionary discipline practices such as office referrals, suspensions, and expulsions remove students from their learning environment and negatively impact their access to academic instruction and increase the risk of dropping out of school and encountering contact with the juvenile justice system (Bradshaw et al., 2018; Love, 2021; Shores et al., 2019). Exclusionary school discipline practices are disproportionately used with students of color, including both frequency and harshness of punishments, particularly for African

American children, and this problematic trend is on the rise (Bradshaw et al., 2018; Gladney et al., 2021; Love, 2021; Pas et al., 2016). Despite the potential of alternate disciplinary practices such as School-wide Positive Behavioral Interventions and Supports (SWPBIS) and the use of restorative justice, African American students continue to be excluded from their classroom more frequently than their White peers for less severe behavior (Gaias et al., 2019; Gladney et al., 2021; Larson et al., 2018; Swain-Bradway et al., 2014).

According to Gladney et al., (2021), instruction in explicit culturally responsive social skills and the use of culturally responsive classroom management strategies have the potential to reduce some of these racial and cultural inequities. Bradshaw et al. (2018) developed and assessed a preventative intervention called Double Check, a professional development and coaching model designed to complement SWPBIS and improve five core components of culturally responsive practices. These domains include curating meaningful relationships, creating cultural connections to the curriculum, reflecting on one's cultural and social background, effectively communicating with students with linguistically and culturally diverse backgrounds, and an awareness of students' culture and its alignment or misalignment with the behavioral expectations of school (Bradshaw et al., 2018). A significant number of teachers share that there is a lack of professional development opportunities around specific skill-based culturally responsive instruction (Bradshaw et al., 2018; Gladney et al., 2021; Pas et al., 2016). After a single professional development opportunity, teachers rarely implement new practices due to a limited conceptual understanding or a lack of confidence in the new skills or concepts (Gladney et al., 2021).

Gladney et al. (2021) examined the impact of multilevel coaching on the implementation of culturally responsive social skill instruction. Participants received professional development

on Gladney et al.'s (2021) Culturally Responsive Academic Framework for Teaching Social

Skills (CRAFTSS) training protocol designed to support the development of daily 10-15 minute

culturally responsive social skill lessons followed by individual coaching. After this professional

development, each participant received various levels of coaching based on their CRAFTSS

implementation fidelity score. At the end of the study, data was gathered through a teacher

questionnaire and student behavior incidence concepts (Gladney et al., 2021).

Participants initially demonstrated an implementation fidelity score of below 80% during

three of the five baseline sessions. After participating in multilevel individual coaching,

implementation fidelity scores rose to well above 90%. Student behavior data demonstrated a

change from high levels of noncompliance during baseline to an almost zero level of

significantly disruptive behavior after the implementation of CRAFTSS with fidelity.

Participating teachers strongly agreed that culturally responsive social skill instruction positively

impacted the behavior of their students (Gladney et al., 2021).

Comparison data examined by Bradshaw et al. (2018) after school-wide professional

development activities indicated increased self-efficacy and improved self-reported culturally

responsive behavior management for both coached and uncoached participants. Observational

data demonstrated higher levels of anticipation of student issues, more proactive behavior

management strategies, fewer student disruptions, and more cooperative student behaviors in

classrooms of coached participants. Findings indicate that although professional development

may positively impact the attitudinal self-reported outcomes of teachers, it may not affect the

behavioral outcomes (Bradshaw et al., 2018). Culturally responsive social skills instruction,

which acknowledges and incorporates the cultural norms and backgrounds of students, has the

potential to mitigate the disproportionality of exclusionary discipline practices experienced by

African American students. However, it is important to note that while this approach can be beneficial, some teachers may still require initial training to effectively implement it. Moreover, ongoing support and coaching may be necessary for other educators to ensure sustained positive outcomes (Bradshaw et al., 2018; Gladney et al., 2021).

Pas et al. (2016) conducted a study that centered on the utilization of coaching as a means to assist teachers in their growth and implementation of culturally responsive management strategies. The research focused on ensuring the fidelity, feasibility, acceptability, and dosage necessary to establish a strong foundation for the effective application of these strategies. By providing personalized coaching, educators were supported in addressing their specific needs and challenges in creating culturally responsive learning environments. This approach aligns with the principles of andragogy, which emphasize the importance of tailoring professional learning opportunities to meet the self-identified needs of educators (Knowles et al., 2020; Pas et al., 2016; Skerrett et al., 2018).

Teacher-led professional development places great emphasis on individual agency and autonomy in the learning process. It acknowledges the pivotal role of teachers in shaping their own professional learning experiences, empowering them to identify their unique areas of interest and needs. By actively involving teachers in the design and implementation of professional development activities, this approach fosters a sense of ownership and engagement. The principles of andragogy underscore the value of self-directed learning and recognize teachers as experts in their own professional growth. By embracing teacher-led professional development, educational institutions promote a culture of continuous improvement, where educators actively drive their learning and contribute to the advancement of their profession (Knowles et al., 2020; Pas et al., 2016; Skerrett et al., 2018).

Readiness for Culturally Responsive Teaching

Educational practices that consider and respond to the diverse languages and identities of students are necessary to support increasingly diverse classrooms. The pedagogical practices of teachers send strong messages to students, influencing how they see themselves and their future opportunities (Gay, 2018; Villegas & Lucas, 2002). Kimanen et al. (2019) examined the impact on pre-service and in-service teachers when they evaluate their readiness to successfully deliver specific culturally and linguistically responsive practices. Factors that impacted participants' orientation towards culturally and linguistically responsive pedagogy included current professional status, multicultural education training, and gender. Attendance in trainings geared toward cultural diversity resulted in a more positive identity-affirming stance (Hudson, 2020; Kimanen et al., 2019; Ragins & Ehrhardt, 2021). When teachers interact with students in a way that recognizes and validates the language, culture, and background that make up their identity, it is affirming and likely to lead to more school engagement and effort toward academic success (Banks, 2006; Kimanen et al., 2019; Spiess & Cooper, 2020). Experience as a small group instructor created opportunities for teachers to build a more intimate relationship with students leading to a higher orientation toward affirming identities. Teachers who view responding to the diversity of culture and language in their classrooms as a pivotal role in their job might have more confidence and motivation in their work (Kimanen et al., 2019; Knowles et al., 2020).

Teacher education programs must prioritize preparing graduates to work in increasingly diverse learning environments. Currently, the teaching force in the United States which is primarily White, female, middle-class, and English-speaking, does not accurately reflect the increasingly ethnically and linguistically diverse populations they serve, and they may be underprepared in both the skill and understanding needed to provide an effective multicultural

learning environment (Acquah & Commins, 2017; Moore et al., 2021). With this disconnect in

mind, Moore et al. (2021) examined the perceptions of undergraduate elementary (K-6)

education students in a dual certification program related to their professional and personal

readiness to implement culturally responsive teaching in both general and special education

classrooms. Zorba (2020) examined the level of personal and professional preparedness of in-

service English teachers to implement CRT resulting in similar findings to the work of Moore et

al. (2021). In both studies, data were collected using the Cultural Responsive Teaching

Readiness (CRTR) Scale to measure personal and professional readiness (Moore et al., 2021;

Zorba, 2020).

The data demonstrated that participants generally felt more personally than professionally

prepared to support students from culturally diverse backgrounds (Moore et al., 2021; Zorba,

2020). The results pointed to the need for additional training and professional development for

preservice and novice teachers to enrich their personal readiness and enhance their professional

readiness (Hudson, 2020; Kumar & Lauermann, 2018; Moore et al., 2021; Zorba, 2020).

Participants had a less favorable response to the survey questions about instructional materials

and curriculum utilized in their teacher education program to prepare them to serve in diverse

classrooms and communities (Moore et al., 2021). These courses should engage students in both

practical and theoretical multicultural education and CRT. Meaningful field experiences in

multicultural classroom environments are critical to bolstering the successful professional

preparation of teachers in increasingly diverse schools (Acquah & Szelei, 2020; Moore et al.,

2021; Senyshyn & Martinelli, 2021; Zorba, 2020).

Intercultural Competence

The awareness of the need for intercultural education in classrooms and the personal and professional readiness to change and implement instructional practices do not always align. Intercultural competence can be thought of as the ability to adapt appropriate and effective communication and behavior in intercultural situations (Deardorff, 2011). Two primary practices improve the intercultural competence of students, integrated curriculum and co-curricular activities that provide cultural immersion opportunities. As higher education institutions commit to graduating students ready to serve in an increasingly diverse world, it is necessary to assess intercultural competence as a learning outcome (Deardorff, 2011).

A study by Álvarez Valdivia and González Montoto (2018) focused on a group of eight elementary school teachers and explored their developmental level of intercultural competence. The assessed intercultural competence level was then contrasted with the focused small group discussion of their culturally diverse educational experiences. Research findings point to an overestimation of participants' level of intercultural competence as demonstrated by their emphasis on the importance of cultural similarities instead of recognition of the value of cultural differences. Teachers exhibited a lack of understanding of the critical need to expand their intercultural instructional strategies due to the small number of culturally and linguistically diverse students at the school (Álvarez Valdivia & González Montoto, 2018). The participating teachers did express an interest in learning more about cultural diversity, highlighting the importance of dialoguing with peers to co-construct meaning and build new knowledge, a frequently mentioned effective professional growth strategy (Acquah & Szelei, 2020; Álvarez Valdivia & González Montoto, 2018; Aragona-Young & Sawyer, 2018; Johnson et al., 2021; Merlin-Knoblich & Dameron, 2021).

Mindset

School success in the United States, as measured by on-time high school graduation rates, continues to show that African American and Latino/a students are falling behind compared to their White peers. The student population in the United States continues to get more diverse and yet, the predominately White female teaching force continues to demonstrate a need for training and support on how to effectively serve the needs of their students. Spiess and Cooper (2020) measured to what extent the demographic profile of teachers and their mindset and belief about knowledge predicted cultural proficiency. This study and multiple others suggest that current professional development on cultural proficiency may not be fully effective and would benefit from being more complete (Hudson, 2020; Kumar & Lauermann, 2018; Moore et al., 2021; Spiess & Cooper, 2020; Zorba, 2020). Training that includes information and activities related to building a growth mindset around cultural proficiency would better enable participants to examine their beliefs and knowledge level and encourage them to make more impactful changes in their professional practice in serving students from diverse backgrounds (Spiess & Cooper, 2020). Data also showed that the more certain participants were in their knowledge level and beliefs about human values were less advanced along the cultural proficiency continuum (Spiess & Cooper, 2020).

Collaboration

Teachers may engage in ongoing collaborative activities, such as participating in a professional learning community, study group, grade level team, or teacher network, which can be either formally or informally established (Akiba & Liang, 2016; McNeilly et al., 2022; Yang et al., 2022). Ongoing collaboration and support are vitally important as teachers engage in professional development focused on long-term changes in professional practice

(Brandisauskiene et al., 2020; Buxton, 2021; Dray & Brancard, 2017; Johnson et al., 2021; McCormick et al., 2013; McNeilly et al., 2022). As teaching and learning increasingly prioritize building collaborative communities, embedding, and supporting professional collaboration is a critical component of effective professional development (Darling-Hammond et al., 2017; Skerrett et al., 2018).

Small Group Discussions

As the demographic make-up of our student populations continues to get more diverse, our teacher training programs, both at the university level (preservice) and ongoing professional development for current educators (in-service) need to focus on multicultural competence (Abernethy & Eriksson, 2021; Carroll, 2022; Lewis Chiu et al., 2017; Lucey & White, 2017). A study by Merlin-Knoblich and Dameron (2021) sought to implement a possible intervention to build multicultural competence and then measure possible multicultural attitude changes as a result." This intervention, a diversity dinner dialogue (DDD), included inviting faculty and staff from both the elementary and university level to read a multicultural-focused book and then discuss the text over dinner to gauge if perceptions and practices serving diverse students were impacted. One of the key findings of this Merlin-Knoblich and Dameron (2021) study, and several others, suggests that diversity training may not significantly impact current teachers' multicultural attitudes or implementation of inclusion practices without additional professional development or support (Hudson, 2020; Kumar & Lauermann, 2018; Moore et al., 2021; Zorba, 2020). Engaging in training or dialogue around diversity and equity has the potential to trigger dissonance or disintegration phases of multicultural identity development (Merlin-Knoblich & Dameron, 2021). Merlin-Knoblich and Dameron (2021) caution that trainers ought to be aware of models of racial identity development to better prepare for the participants' experience and

process when learning about multicultural topics. Kwok et al. (2021) similarly mentioned the importance of being strategic about how to include concepts related to categorizing marginalized students.

Intercultural Relationships

Over the last 80 years, multiple studies of curriculum interventions have been performed to determine the impact of teaching lessons and units, multicultural materials, and role-playing on the racial perceptions and attitudes of students (Banks, 2006). Research indicates that multicultural teaching materials and structured cooperative teaching strategies designed to ensure equal status between interracial groups can increase empathy, self-esteem, and motivation, and have a long-term positive impact on racial attitudes and behaviors toward other ethnic and minority groups (Banks, 2006). Based on the documented need to prepare teachers to address diversity and equity in classrooms, many school districts provide professional development focused on creating culturally competent instructors empowered to cultivate learning environments designed to support their increasingly diverse student population (Thompson & Byrnes, 2011). A minimal number of studies have examined how these in-service and preservice opportunities impact student attitudes and academic success or the relationship between culturally competent teachers and the intercultural social connections between students (Mamas et al., 2019; Thompson & Byrnes, 2011).

Socially responsive classrooms and schools prioritize both academic achievement and social-emotional aspects of learning. These educational environments actively foster positive social interactions, nurture student well-being, promote friendships, and cultivate inclusive peer relationships. In these settings, educational leaders and teachers are committed to creating conditions that enhance positive social dynamics and continuously strive to improve the

inclusion and active participation of all students in the learning process. Socially responsive schools and classrooms have the potential to enhance students' learning outcomes, socioemotional well-being, and sense of belonging, and function as a protective factor against stress both inside and outside of school. These benefits extend to both the classroom and school levels. Despite the widely recognized significance of socially responsive classrooms and schools, researchers, as well as educational leaders and teachers, face challenges in effectively understanding and assessing students' social interactions, peer relationships, and other related factors (Mamas et al., 2019).

Carter et al. (2019) aimed to expand upon previous research on the connection between a diverse friendship network, perceived injustice, and willingness to engage in collective action. Their study examined how the ethnicity or race of close friendships formed during the first year of college impacted the students' perceptions of the relations between diverse groups of students on campus as well as their willingness to participate in social justice activities. Specifically, it investigated the factors that contribute to the majority group's (White students) participation in campus-based collective action and their ability to recognize perceived injustice toward minority groups (Carter et al., 2019).

Results demonstrated that, overall, the larger percentage of underrepresented minority friendships was positively associated with a heightened level of perceived injustice and willingness to participate in collective action. On the other hand, the greater the percentage of White friends, the less likely participants were to perceive injustice and engage in efforts to build an inclusive environment for diverse students. This research advises that a diverse close friendship network impacts perceptions and actions around social justice; therefore, opportunities

to build authentic, ongoing relationships between minority and majority student groups should be fostered and supported (Carter et al., 2019).

A study conducted by Mamas et al. (2019) introduced a social network analysis (SNA) toolkit that enables leaders, educators, and researchers to deepen their understanding of classroom social network dynamics. By bridging theory and practice, the authors provide theoretical and practical steps for designing and implementing SNA to study socially responsive classrooms. The SNA perspective emphasized the value of examining social interdependencies and interconnectedness among students within a classroom network. The toolkit offered a comprehensive platform for gaining insights into students' social relationships, particularly among underserved and marginalized students, such as those with disabilities and racially and linguistically diverse students.

In a related study, Thompson and Byrnes (2011) found statistically significant differences in the inclusiveness of students with a culturally competent teacher compared to students with an untrained teacher. Their study demonstrated that students in classrooms with culturally competent teachers showed greater inclusiveness in their intercultural friendships compared to students in classes with untrained teachers. Interestingly, five out of the six untrained teachers expressed as much or even more confidence in serving diverse populations than the teachers who had received more training. These results suggest that self-confidence in cultural competency alone is insufficient for creating classroom communities that foster greater social inclusiveness among students (Thompson & Byrnes, 2011).

The majority of businesses, organizations, universities, and schools have prioritized providing and engaging in diversity and equity training (Ragins & Ehrhardt, 2021). To continue justifying the resources allocated to required diversity training, the effectiveness of outcomes

needs to be measured. Ragins and Ehrhardt's (2021) research examined what makes diversity training more effective at improving perspective-taking and the possible positive causational relationship to having close cross-racial friendships, adding to the current research on diversity training by linking theoretical practices with relational perspectives.

Data showed that participants with close cross-cultural relationships demonstrated better perspective-taking abilities at the end of the course than participants who did not indicate a closeness with cross-race friends. Participants with close cross-race friendships were less likely to believe in a just world and more invested in the importance of diversity training to improve diversity skills. The study demonstrated the effectiveness of implementing a social psychology exercise "a day in the life" perspective-taking assignment to improve empathic concern and willingness to engage in cross-cultural friendships (Ragins & Ehrhardt, 2021).

Collaborative Teacher Study Group

Johnson et al. (2021) outlined the impact of participating in a collaborative teacher study group as part of an intensive month-long professional development experience focused on African American History and culture geared to improve the cultural competence of secondary English Language Arts and Social Studies teachers. Participants were immersed in multimedia exposure to art, film, music, historical documents, and literacy selections to broaden their understanding of the lived experience of historical and current African Americans and participated in collaborative workshops and discussions facilitated by leading scholars. Through this comprehensive learning opportunity, participants were encouraged to expand their cultural competence thus improving their ability to teach humanities through a multicultural lens at the secondary level (Johnson et al., 2021).

Study participants shared that the African American focused collaborative teacher study group professional development experience expanded their cultural competence awareness and would influence their instructional practice. Both quantitative and qualitative data pointed to movement from the cultural blindness stage to the cultural pre-competence stage for many of the participants. These findings point to the critical nature of carefully designed, ongoing professional development opportunities that allow for a safe place to explore, discuss, examine, and reconstruct teachers' understanding of potentially difficult and sensitive cultural topics (Johnson et al., 2021). Similarly, in their 2018 study of effective characteristics and models of professional development, Abu-Tineh and Sadiq determined that although mentorship ranked first, workshops at school and study groups were rated the second and third most effective professional development models pointing to the importance of establishing and maintaining a collaborative culture in schools.

Senyshyn (2018) engaged preservice teachers in facilitated intercultural partnerships to deepen their understanding of cultural and linguistic diversity as part of the preparation to serve in multicultural educational settings. A framework was proposed to improve the intercultural competence of future teachers through a partnership between universities' schools of Education and their international English language learner population. Participants' responses illustrated an enhanced self-awareness, better understanding of others, new skills, and a solid understanding of the importance of continuing their intercultural learning throughout their academic and professional careers. The reflections demonstrated a transformative learning experience that resulted in gaining new perspectives, reframing their previous understanding of cultural and linguistic diversity in the educational context. Participants expressed the importance of linguistic and cultural diversity in education, recognizing that multiple perspectives are valuable and must

be acknowledged and that teachers must design their instruction to meet the needs of diverse learners (Senyshyn, 2018).

Multicultural Attitudes

Multicultural attitudes in education encompass a complex and multifaceted domain, underscoring the imperative for educators and educational leaders to cultivate cultural competence, integrate inclusive practices, and foster social justice perspectives within their teaching and leadership methodologies. Buzzai et al. (2022) sought to contribute to the current understanding of the foundation necessary to support effective teaching of multicultural education. Specifically, researchers examined the role of teacher attitudes toward cultural competence concerning the efficacy of motivating teaching styles and inclusive practices. This research sought to shed light on the importance of teacher attitudes and their impact on creating inclusive and culturally responsive classrooms. Other studies have explored various dimensions related to multicultural attitudes in education. For instance, Abaciogu et al. (2020) focused on the significance of perspective-taking, highlighting how teachers' ability to understand and empathize with diverse perspectives contributes to their effectiveness in promoting multicultural understanding. Keppens et al. (2021) investigated the development of a professional vision of inclusive classrooms, emphasizing the need for educators to possess a clear understanding of inclusive practices and strategies to create equitable learning environments. Several studies have examined the development of a conceptual and practical understanding of diversity and equality among teachers. Aragona-Young and Sawyer (2018), Kwok et al. (2021), and Szelei et al. (2020)

explored the importance of fostering teachers' knowledge and skills in addressing diverse student needs, promoting cultural awareness, and implementing inclusive pedagogical practices.

Perceptions of teaching in urban school settings have also been investigated in the context of multicultural education. Allen and FitzGerald (2017), Cavendish, Perez et al. (2021), Senyshyn and Martinelli (2021), Skerrett et al. (2018), Truscott and Obiwo (2021) delved into the unique challenges and opportunities faced by teachers working in urban schools, with a focus on fostering multicultural attitudes and practices that meet the needs of diverse student populations. Akman (2020) and Canli (2020) explored how educational leaders can promote equity, social justice, and inclusive practices within schools, emphasizing the importance of leadership in fostering multicultural understanding among teachers and students.

Culturally responsive teaching has been shown to increase both student achievement and engagement (Acquah & Szelei, 2020; Hammond, 2015; Senyshyn & Martinelli, 2021; Truscott & Obiwo, 2021; Zorba, 2020). Abaciogu et al. (2020) sought to add to growing quantitative data related to teacher behaviors that best facilitate the effective implementation of CRT. The two teacher qualities investigated were: multicultural attitudes and perspective-taking abilities and the impact of those qualities on their self-reported CRT. Teachers with higher perspective-taking abilities and more positive multicultural attitudes self-reported more frequent engagement in CRT practices. Perspective-taking was the stronger predictor of CRT implementation out of the two teacher abilities measured. Teachers serving a higher concentration of ethnically diverse students reported better perspective-taking abilities and more positive multicultural attitudes. This study suggests these two critical qualities can be improved through exposure to texts written by and about diverse populations and participation in the social and cultural events of individuals

different from their own, as long as these experiences are paired with ongoing meaningful dialogue with colleagues (Abaciogu et al., 2020).

The demographics of teachers who are primarily middle-class White, females, and speak only English, are increasingly different from the students they serve, indicating a widening gap. In the year 2020, among the 48.1 million students enrolled in U.S. public schools, 22 million identified as white, while 26 million were classified as Black, indigenous, or other people of Color (BIPOC). Despite the pronounced diversity in student demographics, a substantial disparity exists in the racial composition of teachers, with 79% of public-school educators being white (National Center for Education Statistics, 2021), signaling a marked lack of representation relative to the diverse student body.

Research by Kwok et al., (2021) indicates that mismatch can have a significant negative impact on the success of both students and teachers. Beyond the required multicultural course that teacher preparation programs sometimes require, more work needs to be done to determine how teacher candidates' mindsets and previous experiences with diversity impact their preparedness to support students in a diverse cultural and multilingual classroom environment (Kwok et al., 2021). Kwok et al. (2021) explored teacher candidates' understandings of diversity and equality, and how these beliefs changed over time and participation in the teacher preparation program.

Kwok et al.'s (2021) organized their research into two main findings: (1) participants' understandings of culturally responsive literacy instruction fell along a continuum between equity and equality, and (2) a deepening of their understanding of cultural awareness upon completing the program. A polarization effect was noted, participants who responded with an equality mindset maintained that belief throughout the program, alternatively, teacher candidates

who started with an equity outlook shifted from 19% to 41% pointing to a move toward a more equitable stance toward effective literacy instruction for diverse students. This polarization finding has importance when considering the possible influence of confirmation bias, diversity training must be strategic about how to include concepts related to categorizing marginalized students and culturally competent instruction (Kwok et al., 2021).

Research studies have primarily focused on investigating the cultural diversity learning opportunities for preservice teachers, but further research is needed to examine how schools support in-service teachers through professional development (PD) within the school context. In their study, Szelei et al. (2020) explored teachers' conceptual understanding and responses to student cultural diversity, as well as the impact of cultural diversity PD on their pedagogical actions related to justice-oriented understanding. The findings from Szelei et al. (2020) indicated that teachers expressed a strong desire for more information about the lives, families, languages, and cultures of the students they served, which aligns with the work of Brownsword (2019). This reflects the adult learner's need to know (Knowles et al., 2020) and highlights the importance of providing specific culturally relevant strategies and tools that directly impact instructional practices rather than focusing solely on abstract thoughts on diversity (Szelei et al., 2020).

Another recurring theme identified in the study was the teachers' desire for a supportive educational system that enables collaboration with peers and the community regarding cultural diversity. This desire for autonomy in making instructional decisions in the classroom aligns with the principle of self-concept of the learner (Knowles et al., 2020). By incorporating this collaborative and autonomous approach, professional development programs can better address the adult learner's orientation and motivation for learning, as well as draw upon their prior experiences (Knowles et al., 2020). Participants in the study highlighted that while they had been

presented with a variety of PD opportunities, their primary learning occurred within the context of the classroom and different school environments. This emphasizes the importance of listening to and incorporating student voice in teacher learning, which is in alignment with the adult learner's orientation and motivation for learning as well as their prior experience (Szelei et al., 2020). By considering these connections to andragogy, professional development programs can be designed to better meet the needs of adult learners, integrating their prior experiences, self-directed learning, and relevance-oriented preferences (Knowles et al., 2020).

American classroom demographics continue to trend toward a more diverse student population. Therefore, it is increasingly important that teachers are prepared to support and address the varying needs of culturally diverse students (Cantrell et al., 2023). Aragona-Young and Sawyer's (2018) study focused on determining if a teacher's definition of culture impacted their support of multicultural practices. Additionally, it sought to determine if factors such as school demographics or teacher preparedness through professional development or coursework focused on multicultural practices impacted teacher endorsement of multicultural instructional strategies. Currently, there is limited literature on in-service teachers' understanding and endorsement of multicultural methods, this study aimed to contribute to this body of work (Aragona-Young & Sawyer, 2018).

The results of Aragona-Young and Sawyer's 2018 study showed that teachers' definitions of culture were broad and did not frequently include specific cultural identities such as gender, ethnicity, or religion. Participants did not demonstrate a strong endorsement of high leverage multicultural teaching practices. Instructors must have foundational knowledge about culture and diversity to recognize and address issues of equity (Aragona-Young & Sawyer, 2018). Schools with a more diverse student population did not appear to be a contributing factor

in positively affecting a teacher's positive view of multicultural practices. School-based factors that may have favorably impacted teacher cultural competence include leadership practices that lead to a clear school vision and targeted support for teachers based on high-performance standards. Findings point to a need for diversity-centered professional development of a higher quality including the use of case studies or classroom-based scenarios as well as ongoing professional learning communities for ongoing study, reflection, and discussions (Aragona-Young & Sawyer, 2018).

Senyshyn and Martinelli (2021) conducted research examining the effects of a college-level elementary education collaborative project and study, designed to prepare teacher candidates for a successful field experience in a diverse urban school setting in an elementary education program. The study had two primary goals, to better understand preservice teachers' perceptions and awareness of diversity in the classroom and to examine education students' engagement with multicultural children's literature to support culturally responsive instructional practices. The researched educational program used coursework focused on integrating diverse and culturally relevant literature to impart asset-based practices and pedagogies and to positively shift teacher candidates' attitudes toward serving multicultural students. The results of this research showed that preservice teachers demonstrated increased awareness and positive shifts in perspectives about diverse student populations. This study also established that participants benefited from collaboration with peers focused on the analysis and implementation of multicultural children's literature as an instructional strategy to create lessons on cultural diversity (Senyshyn & Martinelli, 2021). This research by Senyshyn and Martinelli (2021) highlighted the importance of effectively incorporating diverse literature into classrooms, as did Banks in 2006. Additionally, Senyshyn and Martinelli (2021) demonstrated the beneficial nature

of co-teaching and planning with other educators, and the critical need to engage in reflective

practice with peers to improve their culturally responsive teaching, aligning with previous work

by Keppens et al. (2021) and Szelei et al. (2020).

There are common perceptions as well as possible misperceptions about teaching in

schools in urban neighborhoods, including focusing on challenges and not the opportunities that

are present. Truscott and Obiwo (2021) sought to examine the connection between practice,

belief, and context for student and novice teachers in an urban setting. Specifically, the study

explored the impact on preservice teachers' beliefs and dispositions when participating in school-

based teacher preparation programs in diverse settings. The findings of this study included the

importance of a focused pedagogical and theoretical framework such as culturally responsive

teaching to guide preservice teachers' instruction and to provide a lens to view the work. The

CRT framework appeared to encourage a shift from previous personally held beliefs or biases

based on real-life or vicarious experiences. The structure and support of a CRT framework

heightened awareness of sociopolitical factors (Gay, 2018; Hammond, 2015) potentially leading

to an increased sense of agency and optimism. Preservice teachers with previous urban school

experience were focused on macro-level school and community-level factors. Preservice teachers

with limited previous diversity experience were focused on micro-level issues such as students

and teachers in urban schools. At the end of the certification program, the two groups were able

to articulate a deeper understanding of factors and issues that had not previously been of concern

(Truscott & Obiwo, 2021).

Educational leaders must focus on the importance of social justice to identify, examine,

and remove the historical and current barriers that impact the academic and social success of

students in schools (Akman, 2020; Aragona-Young & Sawyer, 2018; Canli, 2020; Merlin-

Knoblich & Dameron, 2021; Perez et al., 2020; Williams, 2018). A 2020 study by Canli explored

the correlation between social justice leadership behaviors and students' sense of belonging at

school. They determined that students perceived school principals exhibited social justice

behaviors at a moderate level. Female students responded with a more positive perception of

principals' social justice leadership specifically related to critical consciousness and support.

Further results indicate a positive correlation between students' sense of belonging in a school

and the social justice leadership behaviors of the principal. This research suggested that social

justice leadership behaviors may include treating students with respect, involving students in the

decision-making process, and listening to their ideas. Canli (2020) recommends that principals

involve the families of students, recognize individuality, and create a safe and relaxed

environment.

Conclusion

American public schools have an opportunity and obligation to be headquarters for

identifying and eliminating systems of racial and ethnic inequality (Brownsword, 2019; Byrd,

2021; Chu, 2019; Williams, 2018). Educators are responsible for facilitating equity for and

among students through the use of culturally responsive teaching (Banks, 2006; Gay, 2018;

Villegas & Lucas, 2002). To prepare the teaching force to effectively implement these practices

and instructional strategies, universities need to deeply examine the content of their multicultural

and multidisciplinary courses (Brownsword, 2019; Bybee et al., 2021; Cavendish, Perez, et al.,

2021; Clark, 2020) as well as the diverse backgrounds of and opportunities and experiences

provided for our preservice teachers. Additionally, in-service teachers need to be provided

ongoing professional development opportunities that incorporate active learning strategies, small

group discussions, and collaboration (Acquah & Szelei, 2020; Álvarez Valdivia & González

Montoto, 2018; Cavendish, Barrenechea et al., 2021), ongoing modeling and mentoring, and time for feedback and reflection (Darling-Hammond et al., 2017; Young et al., 2018). Beyond providing quality, effective, professional learning opportunities, schools must identify and utilize measurement tools to determine if an educator's desire to be more culturally responsive translates into a more equitable classroom community (Cardona-Moltó et al., 2018; Chu, 2019; Ragins & Ehrhardt, 2021; Riordan et al., 2019).

The existing body of research on professional development models for both preservice and in-service teachers, including those focused on culturally responsive teaching, relies heavily on self-assessment measures to evaluate efficacy and implementation. These studies lack observational data to verify the transference from professional development to the practical implementation of culturally competent instruction in the classroom. This limitation hinders the ability to robustly demonstrate the actual impact and effectiveness of professional development programs.

Furthermore, the current literature lacks sufficient research exploring the connections between the six assumptions of andragogy and diversity, equity, and inclusion professional development for teachers. Andragogy, as a theoretical framework for adult learning, offers valuable insights into the learning needs and motivations of adult learners. However, its specific application and alignment with training on culturally responsive teaching has received limited attention. Examining these connections can provide a deeper understanding of how andragogical principles can be effectively integrated into professional development programs to enhance teachers' abilities to create equitable learning environments.

Chapter III: Design and Methodology

Historical and current structural inequalities in education include disparities in funding based on property taxes for schools in poorer neighborhoods often serving higher levels of minority students (Cardichon et al., 2020; Chu, 2019; Hammond, 2020; Paschall et al., 2018). Curriculum that accurately reflects the experience and background of culturally and linguistically diverse populations may be lacking in classrooms (Lumadi, 2020; Ragoonaden & Mueller, 2017; Senyshyn & Martinelli, 2021; Villegas & Lucas, 2002) and access to enrichment such as extracurricular activities may be limited in less privileged districts (Chu, 2019). Exclusionary discipline practices, especially for Black children, such as office referrals, suspensions, and expulsions remove students from their learning environment, negatively impact their access to academic instruction, and increase the risk of dropping out of school and encountering contact with the juvenile justice system (Bradshaw et al., 2018; Gladney et al., 2021; Pas et al., 2016). Additionally, a larger percentage of culturally and linguistically diverse students are identified as possessing behavioral disorders (Faulkner, 2018; Larson et al., 2018; Pledger, 2018; State et al., 2019; Swain-Bradway et al., 2014).

The current and historical inequity in education has negatively impacted historically marginalized communities resulting in an opportunity gap that affects academic success, social-emotional wellness, and graduation rates (Chu, 2019; Kirksey et al., 2020). A critical step in changing the trajectory of our culturally and linguistically diverse students includes embedding content on cultural competency throughout preservice teacher coursework at the university level (Brownsword, 2019; Bybee et al., 2021; Cavendish, Perez et al., 2021; Clark, 2020). Professional development with in-service teachers must be ongoing and include modeling the implementation

of culturally responsive teaching strategies (Abu-Tineh & Sadiq, 2018; Acquah & Szelei, 2020; Acquah et al., 2020; Darling-Hammond et al., 2017; Gladney et al., 2021; Skerrett et al., 2018).

The theoretical framework andragogy, which includes six core adult learning principles, offers valuable insights into designing effective professional development models (Aubrey & Riley, 2019; Knowles et al., 2020). These assumptions address an adult learner's need to know, self-concept, the role of prior experience, readiness to learn, a life-centered, problem-solving orientation to learning, and the adult learner's motivation to learn (Aubrey & Riley, 2019; Karakoc, 2021; Knowles et al., 2020; Mews, 2020). The theoretical framework of andragogy not only informs the design of effective professional development models but also serves as a guiding framework for understanding how adult learners' unique characteristics and motivations shape their educational experiences and outcomes, making it particularly relevant to the study's focus on equipping educators with the tools needed for culturally competent classroom instruction (Aubrey & Riley, 2019; Karakoc, 2021; Knowles et al., 2020; Mews, 2020). The participant responses from the qualitative interviews for this study will be examined and coded to determine the connection or lack of alignment to the framework of andragogy.

The current literature lacks sufficient research examining the transfer of equity-focused professional development to the practical implementation of culturally responsive teaching strategies in classroom settings, particularly in terms of observational data. Existing studies primarily rely on self-assessment surveys to measure participants' self-perceived confidence and competence. Additionally, there is a gap in the literature regarding the exploration of the connections between the six assumptions of andragogy and professional development programs focused on diversity, equity, and inclusion for teachers.

To address these gaps, the purpose of this explanatory sequential mixed method design study is to examine the impact of specific components of equity and diversity professional development for first-year teachers on the successful creation of equitable classroom communities using culturally responsive teaching strategies. The study employed Knowles' (1975) theory of andragogy as the theoretical framework and explored a teacher induction model that includes a monthly professional development series geared to cultivate equitable educators as well as ongoing coaching and mentoring. This training sequence supports nearly 100 new educators in a large Western Washington suburban school district each year. Novice teachers and teachers new to this suburban school district are provided with a district instructional coach who regularly visits their classrooms to model and observe instructional strategies and provide feedback.

The selection of the Harris (pseudonym) School District for this research study is grounded in the implementation of the Cultivating Equitable Educator (CEE) new teacher induction training and mentoring program. Launched in 2017, the CEE program is designed to provide comprehensive support to new educators, including those who are new to the teaching profession or new to the district. The CEE training series distinguishes itself through monthly professional development sessions and bi-monthly classroom visits conducted by instructional coaches. The program is underpinned by a strong commitment to equity, as outlined in its official statement. This commitment emphasizes the development of knowledge, skills, awareness, and advocacy for marginalized groups, specifically targeting undocumented students and students of color. The program further encourages the adoption of Culturally Responsive Pedagogy, urging educators to challenge students and leverage their cultural fluencies to facilitate successful learning outcomes.

The Harris School District emphasizes culturally responsive instructional strategies, focused on boosting engagement and fostering personal connections by integrating student voices and collectivist frameworks. These practices are grounded in the principle that culturally responsive educators harness the cultural strengths of their students to establish meaningful ties to the content. The high leverage equitable strategies include Community Circles that prioritize safety and student voices and using microphones for equitable access to clear communication. Incorporating practices like What/Why Squares for clear learning targets and rationale, Heads Together for collaborative discussions, and Numbered Spoons for equitable student participation further enhance engagement and reduce bias. The Cognitive Content Dictionary method leverages student backgrounds and experiences to build academic vocabulary collaboratively, while Call and Response routines establish consistency and high expectations, aiding in memory retention and confident use of academic language (Danielson, 2007; Drumright et al., 2016; Hammond, 2015; *Project GLAD® – Guided Language Acquisition Design*, n.d.).

Despite the program's emphasis on equity and culturally responsive practices, the Harris School District has acknowledged a deficiency in consistently measuring the implementation of culturally responsive instruction in the classroom. This identified gap provides a compelling rationale for selecting the Harris School District as the focus of the research study. The study aims to contribute by evaluating the impact of the CEE program on the implementation of culturally responsive teaching, addressing a critical aspect that the district itself has acknowledged as an area of improvement.

The researcher collected data through a quantitative classroom observation tool as well as qualitative open-ended semi-structured one-on-one teacher interviews to explore the impactful teaching strategies and critical components of professional development as well as their

alignment with the principles of andragogy. By addressing this research question, this study aims to contribute to the understanding of effective professional development practices and their alignment with andragogical principles, ultimately supporting the creation of equitable learning environments.

The quantitative data provided a measurable understanding of how key components, derived from effective professional development models, influenced the teachers' implementation of culturally competent instruction. Subsequently, qualitative interviews offered insights into the teachers' experiences, shedding light on the application of andragogical principles, such as addressing prior experiences, readiness to learn, and the motivation of adult learners. The synthesis of these data sets underscored the importance of aligning professional development components with andragogical principles, ensuring that educators are not only equipped with specific tools but also guided by adult learning principles in their journey towards implementing culturally competent instruction in the classroom.

The following research question guided this study:

1. What specific components of culturally responsive professional development impact the implementation of culturally competent instruction into classroom practice?

Research Design

Research measuring the effectiveness of professional development on culturally responsive teaching often relies on participants' self-reported level of confidence or understanding (Aragona-Young & Sawyer, 2018; Kumar & Lauermann, 2018; Lu et al., 2022; Moore et al., 2021). A less studied area examines how these experiences change and improve professional practice to create more equitable classrooms. This study utilized an explanatory sequential mixed method design, which involves a two-phase process, to evaluate the impact of

various components of equity and diversity training for educators on the implementation of culturally responsive teaching in the classroom. An exploratory design begins with quantitative data collection and analysis, which is then followed by qualitative data collection and analysis. The quantitative phase helps in generating initial insights, understanding the context, and formulating hypotheses for the subsequent qualitative phase. The qualitative data can then be used to test and generalize the findings from the quantitative phase (Creswell & Guetterman, 2019).

In this context, starting with quantitative classroom observational data allows for the identification and measurement of increased implementation of culturally competent instruction over time. The quantitative phase offered a structured and empirical foundation for exploring the relationship between adult professional development components and their influence on teaching practices. The qualitative phase, involving interviews with first-year teachers, enriched the findings by capturing their subjective experiences and insights. This sequential approach ensures a holistic examination of the research question, combining the strengths of both quantitative and qualitative methods. The explanatory sequential design allows for a more nuanced understanding of how the identified components align with andragogical principles, offering a robust exploration of the complex dynamics involved in integrating culturally competent instruction into classroom practice.

In the initial phase of the research, the investigator systematically collected and analyzed quantitative data to attain a comprehensive understanding of the research problem. This involved utilizing quantitative observational data to track the evolution of culturally responsive practices over time. Three seasoned instructional coaches, proficient in the field, conducted two paired classroom observations for each participant over five months, employing the Culturally

Responsive Instruction Observation Protocol (CRIOP) developed by Powell et al. (2017). The CRIOP, a validated tool, facilitated a nuanced assessment across five primary domains during each observation. These domains include classroom relationships, assessment practices, instructional practices, discourse/instructional conversation, and critical consciousness/diverse perspectives (Powell et al., 2016).

In the classroom relationships domain, emphasis is placed on fostering positive and supportive teacher-student and peer relationships. Assessment practices scrutinize the fairness and cultural sensitivity of assessment methods. Instructional practices involve incorporating diverse cultural perspectives and adapting teaching methods to diverse learning styles. Discourse/instructional conversation assesses the quality of communication in the classroom, promoting inclusive and respectful dialogue. Finally, Critical consciousness/diverse perspectives aims to develop students' critical thinking and awareness of diverse viewpoints, contributing to a culturally competent learning environment (Powell et al., 2016).

The instructional coaches generated metric scores during each observation session, enabling an evaluation of participants' performance. The researcher compared scores obtained in September, conducted prior to the commencement of the new teacher induction series (CEE), with subsequent scores from the second round of observations following five months of training and coaching support. This comparative analysis aimed to identify and quantify growth in the application of culturally responsive teaching practices among the participants. To measure the progress in implementing culturally responsive practices, the study analyzed both pre- and post-observation scores. This involved calculating mean total scores for each set of observational data and assessing the differences between them. Improvement was identified by looking at positive changes in mean total scores and differences between pre- and post-observational data. The

outcome of this quantitative phase served as a foundational basis for the subsequent qualitative phase, aligning with established research methodologies (Creswell & Guetterman, 2019; Hoy & Adams, 2016).

In the second phase of the study, the researcher engaged in the collection of qualitative data to extend and enhance the initial quantitative findings, as advocated by Maxwell (2013). Five teachers were purposefully selected to participate in individual, semi-structured, open-ended, one-on-one qualitative interviews. These participants were chosen based on their demonstrated significant growth in culturally responsive practices as indicated through quantitative classroom observations. The computed mean difference between the initial and subsequent observations was found to be 9. Those seven teachers who exhibited growth surpassing the mean value of 9 were invited to participate in semi-structured interviews, with the intention of conducting interviews with five individuals.

This strategic selection aimed to facilitate an in-depth exploration of participants' experiences and perceptions, thereby contributing to a more nuanced understanding of the impact of equity and diversity training. Through these individual interviews, the researcher delved deeper into the multifaceted aspects of the participants' journeys, allowing for a richer exploration of their evolving perspectives on culturally responsive teaching. The qualitative data gathered during this phase served multiple purposes: it elucidated and contextualized the quantitative results, shedding light on the intricacies of participants' experiences, and identified key factors influencing the implementation of culturally responsive teaching practices. The utilization of qualitative data in tandem with quantitative findings, through an explanatory sequential mixed method design, strengthens the validity of the study and ensures a more thorough examination of the impact of equity and diversity training on the implementation of

culturally responsive teaching in the classroom (Creswell & Guetterman, 2019; Hoy & Adams, 2016; Maxwell, 2013).

Qualitative data enhance and contextualize quantitative results, providing a richer understanding of the factors influencing observed changes. In this investigation of the impact of professional development on the implementation of culturally competent classroom instruction, qualitative data serves to elucidate the underlying reasons behind the statistical changes. Participant interviews, as a means of gathering qualitative data, offer context to the quantitative findings by delving into specific circumstances, challenges, or successes associated with observed changes. This enhanced understanding facilitates the interpretation of quantitative observational data within the unique contexts of participants' schools and instructional spaces.

The utilization of open-ended responses in gathering qualitative data enabled the researcher to capture the perspectives of teachers engaged in professional development. Insights from these responses illuminate how the training influenced instructional approaches, classroom dynamics, and cultural competence, providing a holistic view that complements the quantitative data. Uncovering unintended consequences or unexpected outcomes, not readily apparent in quantitative measures alone, is a strength of qualitative methods. Teachers' insights into unforeseen challenges or positive side effects of professional development contribute to a comprehensive understanding extending beyond numerical changes.

Qualitative data reveal the strategies, techniques, or adaptations that teachers found effective or challenging in implementing culturally competent practices. This provides practical insights that complement and enrich quantitative results. Firsthand teacher accounts, obtained

through one-on-one qualitative interviews, support the identification of barriers and facilitators to the successful implementation of culturally competent practices.

Participants and Setting

Convenience sampling involves the inclusion of participants who are readily available and willing to be studied (Creswell & Guetterman, 2019). In the context of this study, a quantitative convenience sample transitioned into a qualitative purposeful sample when initial analysis revealed discernible groupings that warranted a more in-depth examination of the research question (Creswell & Guetterman, 2019; Marshall & Rossman, 2016). The convenience sample for this research comprised 14 first-year teachers serving at 12 distinct elementary and secondary schools, with student populations ranging from just under 300 to 1,700. The demographic composition of students at each school varied, with percentages qualifying for free or reduced lunch ranging from 33% to 68%, and students of color accounting for between 43% and 60%. From this convenience sample, a purposeful sample was derived, consisting of five teachers who demonstrated substantial growth in the implementation of culturally responsive teaching. Selection for the purposeful sample was based on performance assessments conducted through classroom observations led by district-trained instructional coaches.

Participant recruitment commenced with an initial outreach via email to 100 Preschool through 12th grade educators who were either new to the teaching profession or recently joined the Harris School District and concurrently enrolled in a year-long Cultivating Equitable Educators (CEE) series. The introductory email included an attachment containing the Informed Consent (see Appendix E), a concise 3-minute video offering an overview of the research procedures and purpose, and a Microsoft Form version of the Informed Consent. Subsequently, a brief introduction was provided at the August 2023 new teacher orientation. A follow-up email,

coupled with a visit during a professional development class within the series, where physical copies of the informed consent form were distributed, led to the successful recruitment of 14 novice teachers who expressed willingness to participate in both phases of data gathering.

A total of 22 new to teaching or new to Harris School District teachers expressed an interest in participating in the study. The primary objective of the study was to ascertain the specific components of professional development that exerted the most influence on the incorporation of culturally responsive teaching practices. Eight of these educators, despite being new to the district, possessed prior teaching experience acquired in different educational settings, bringing different levels of experience. Although enrolled in the Cultivating Equitable Educator professional learning series, these experienced teachers lacked regular guidance from instructional coaches, leading to a distinct experience in the new teacher induction series (CEE) compared to those genuinely new to the profession. To enhance the precision of this investigation and minimize external variables such as prior teaching experience and past professional development, the study exclusively focused on the subset of 14 participants who were entirely new to the field of teaching.

Participants signed an Informed Consent form (see Appendix E) with the option to participate fully or to refuse to participate in portions of the process. No information about specific participants was shared with school or district staff. The identity of individual participants was kept confidential. The team of district level instructional coaches responsible for the quantitative classroom observations, selected a four-digit code for each participant, and any possible identifying information was changed to protect the privacy and the identity of each participant. Data collection forms included codes, and not names, to identify participants.

The data collection process for this study consisted of two main phases aimed at capturing the implementation of culturally responsive teaching practices and understanding the impact of training components on professional practice, with an additional focus on exploring connections with the theory of andragogy. During the first phase, district instructional coaches observed 14 first-year teachers in September and January. These non-evaluative observations utilized the Culturally Responsive Instruction Observation Protocol (CRIOP), a quantitative tool developed by Powell et al. (2017), to measure the implementation of culturally responsive teaching practices in participant classrooms. The observations spanned from September 2023 to January 2024, allowing for an analysis of the growth in the implementation of culturally responsive instruction over that period.

To triangulate the observational data, five participating teachers engaged in a semi-structured open-ended one-on-one interview. This qualitative interview designed following established research practices, (Creswell & Guetterman, 2019), gathered teachers' perspectives on the training components that had the most significant impact on their professional practice. The responses provided valuable insights into the aspects of the training program that resonated most strongly with the teachers and influenced their teaching approaches.

To further analyze and interpret the interview responses, the theory of andragogy, as proposed by Knowles et al., (2020), was employed as a framework. Knowles' theory encompasses six assumptions that relate to adult learners' needs, self-concept, prior experience, readiness to learn, a problem-solving orientation, and motivation to learn. By applying this theoretical lens during the analysis and coding of the qualitative interview responses, the researcher aimed to identify possible connections or misalignments between the participants'

preferred adult learning activities, as expressed in the interview responses, and the underlying principles of andragogy.

The teachers selected for this study work in a large suburban school district in Western Washington that serves nearly 23,000 students. This district has seen a steady increase in the diversity of the student population and only a slight shift in the cultural and ethnic makeup of the instructional staff (see Table 1). In the 2023-2024 school year, 16.5% of the staff identified as a person of color while 51% of the students belong to a historically marginalized population (*Report Card - Washington State Report Card*, n.d.).

Table 1.

District Demographics

Characteristic	2015-2016 Student	2023-2024 Student	2023-2024 Staff
American Indian/Alaska Native	0.9%	1%	0.5%
Asian	4.8%	7%	3.8%
Black/African American	3.8%	6.6%	2.4%
Hispanic/Latino	15.4%	20%	5.7%
Native Hawaiian/other Pacific Islander	1.4%	3.1%	0.5%
Two or more Races	12.1%	13.8%	3.66%
White	61.8%	48.4%	83.5%
ELL	4.5%	8.5%	
Low-Income	37.9%	45.5%	

(*Report Card - Washington State Report Card*, n.d.).

Over the last six years, the district has focused on targeted equity and social justice training for the administrators. In some buildings, this commitment has translated to building-

level professional development mirroring the same themes of listening, addressing stereotypes, validating identity, confronting privilege, assessing outcomes, and sense of belonging. Additionally, the Executive Director, Equity and Professional Learning has collaborated with a team of district-level instructional coaches to create a yearlong, monthly Cultivating Equitable Educators series for all new teachers with an emphasis on culturally responsive teaching practices, equity, and social justice. Participants learn about coherent instruction, communicating with students, discussion and questioning techniques, engaging students in learning, flexibility, responsiveness, and using assessment in instruction (Harris School District, 2022a).

The participants in this study work at a variety of elementary and secondary schools throughout the district. The secondary schools are as small as 120 students at the alternative high school and as large as 1,700 at the comprehensive high schools. The 22 elementary schools range from nearly 1000 students to as few as 280 children. The percentage of families who qualify for free and reduced lunch is as low as 24% at one school and as high as 63% at another school (see Table 2).

Table 2.

School Demographics of Participants (2023-2024)

School	Enrollment	Low-Income	BIPOC Students
Elementary #1	759	33.5%	49.5%
Elementary #2	631	68.1%	60.2%
Elementary #3	413	55.7%	60.3%
Elementary #4	369	48.5%	43.4%
Elementary #5	714	39.9%	58.4%
Elementary #6	295	56.6%	47.5%
Elementary #7	370	65.7%	48.9%
Elementary #8	476	52.7%	57.4%
Junior High #1	863	50.8%	53%
Junior High #2	850	39.5%	51.1%
High School #1	1,574	42.3%	51.5%
High School #2	1,700	36.3%	46.4%

(*Report Card - Washington State Report Card*, n.d.).

The location selected for this research included careful consideration of several factors including the conceivability for an effective transition from a known role to that of a researcher, the ability to stay objective, and the potential of discovering negative information (Marshall & Rossman, 2016). The diversity, equity, and inclusion focus of this on-gong professional development model paired with district instructional coaches providing one-on-one mentoring support to novice teachers, made this location an ideal site to measure the observable

implementation of culturally responsive teaching strategies. The location for this research could be defined as a realistic site based on the definitions provided by Marshall and Rossman (2016).

Data Collection

When conducting human studies, the prevention of harm should be a primary concern for every researcher (Marshall & Rossman, 2016). In this research study, careful consideration was given to fostering the respect and safety of all involved parties. The researcher completed Ethics and Human Subject Protection: A Comprehensive Introduction training and received certification from the Association of Clinical Research Professionals (see Appendix F). The necessary application approvals and consents to proceed with the study were obtained from Northwest Nazarene University's Institutional Review Board (see Appendix G). To ensure adherence to data collection requirements, the researcher securely stored all electronic data in a password-protected computer system, while storing any physical documents in a locked desk drawer. Participants who chose not to engage in any or all aspects of the research process faced no adverse consequences. The data collection format prioritized confidentiality, safeguarding individual participants' identities using four-digit codes that had been assigned by the district level instructional coaches rather than names on data collection forms. Any potentially identifiable information was modified to preserve privacy and protect the identity of each participant.

In accordance with the Harris School District's consent requirements, the researcher underwent a thorough application process, which included submitting a Request to Conduct Research application. This comprehensive process involved:

1. A Request to Conduct Research in Harris Public Schools

2. A Summary of Proposed Research

3. Copies of all questionnaires, forms, tests, instruments, and curricular materials to be used

4. Copies of all consent forms and other communications distributed to participants

5. A signed Ethical Principles for Research in Harris Public Schools

6. A signed Research Contract Guidelines for Harris Public Schools

7. A signed Conducting a District-Approved Research Project

Access to the research site was granted in February 2023 (see Appendix D).

After a wide review of the literature, one quantitative tool was selected to measure the connection between effective training, teacher self-efficacy, and the observable implementation of culturally responsive teaching strategies. Additionally, to gain a deeper understanding of effective professional development components as perceived by participating educators, a qualitative component was created and included.

Instrumentation

The Culturally Responsive Instruction Observation Protocol (CRIOP), Fourth Edition, revised by Powell et al. (2017), gathered quantitative data through non-evaluative observations in September and January conducted by district instructional coaches (see Appendix A). CRIOP employs a five-point Likert scale: never, rarely, occasionally, often, and consistently to indicate the implementation of specific instructional strategies related to six major elements: classroom relationships, family collaboration, assessment practices, instructional practices, discourse, and sociopolitical consciousness (Powell et al., 2016). Each CRI Indicator includes examples of evidence in a responsive classroom as well as indicators in a non-responsive classroom. Powell et al. (2016) recommend the importance of triangulation using follow-up interviews to elicit additional information that may not have been readily visible during the classroom observation.

In previous administrations, CRIOP yielded a Cronbach's alpha of .78 in the fall, while the

spring administration CRIOP yielded a Cronbach's alpha of .76 (Powell et al., 2016).

In a series of electronic correspondences and virtual meetings, the researcher collaborated

with the Executive Director of Instructional Leadership, Teaching and Learning, and the

Assistant Director of Instructional Leadership from the Harris School District. This collaborative

effort aimed to present a comprehensive overview of the research's scope and purpose. Upon

obtaining the leaders' commitment to support data collection, a team comprising three

instructional coaches at the district level was formed (see Table 3). Their responsibility was to

collect quantitative observational data utilizing the CRIOP tool.

Table 3.

Instructional Coaches

	Years in Education	Highest Degree	Years as an Instructional Coach
Instructional Coach #1	9	Masters	4
Instructional Coach #2	20	Masters	6
Instructional Coach #3	28	Masters	11

To establish a shared understanding of the purpose and implementation of the

observational protocol, each team member thoroughly reviewed the "Operationalizing Culturally

Responsive Instruction: Preliminary Findings of CRIOP Research" (Powell et al., 2016). The

researcher delineated explicit expectations and timelines, and the team engaged in a calibration

process for scoring the five observable indicators of culturally responsive instruction: classroom

relationships, assessment practices, instructional practices, discourse, and sociopolitical

consciousness. The data collection occurred in two phases: initially in September during a one-

hour classroom observation and subsequently in January during a similar instructional block. Each instructional coach performed the observations in the classrooms of novice teachers within their current caseloads.

Source of Data

Data triangulation provides a more accurate view of a person's multicultural perspective and the ways that understanding translates into professional practice (Guyton & Wesche, 2005). After reviewing the pre- and post-observational quantitative data gathered with the CRIOP tool, teachers who demonstrated the most growth in their operationalization of culturally responsive teaching practices were invited to participate in a semi-structured one-on-one open-ended interview via Microsoft Teams to identify the training components that most impacted their professional practice. When creating questions for qualitative data collection, simplicity and clarity are essential to encourage participants to respond completely (Creswell & Guetterman, 2019).

Content Validation

Content validity, in the context of measurement tools, is defined as the degree to which the instrument accurately reflects the intended construct it seeks to measure. Ensuring the comprehensive validity of a measurement tool necessitates the systematic application of content validation procedures following established best practices. The procedural framework for content validation comprises six essential steps: creating a validation form, assembling a panel of experts, conducting the content validation process, reviewing the items for assessment, assigning scores to individual items, and computing the Content Validity Index (Yusoff, 2019). For this study, the research question guided the selection and modification of interview questions found in the review of literature (Brooks, 2023; Campbell-Daniels, 2021; Wilson, 2023).

To enhance the clarity and conciseness of the qualitative interview question validation process, a diverse and knowledgeable panel of experts was assembled to ensure a comprehensive assessment. The panel comprised ten individuals with expertise in both professional development and culturally responsive teaching practices. Among them were several doctoral students dedicated to the study of culturally relevant theses, bringing a fresh and research-oriented perspective. Additionally, Ed.D. holding professionals with practical experience, including an elementary and high school administrator, the Executive Director of Federal Programs and Student Support, and a Neural Education Trainer and Consultant were valuable members of the panel. Notably, both the current Harris School District Executive Director and the Assistant Director of Instructional Leadership, Teaching & Learning, were active members of the validation process. This diverse group of experts provided a well-rounded evaluation, considering both theoretical insights and practical implementation perspectives (see Table 4). The inclusion of professionals with varying backgrounds and roles enhanced the validity and applicability of the qualitative interview questions in the context of culturally competent classroom instruction.

Table 4.

Expert Review Panel

Expert	Degree/Title
1	Doctoral Student, Culturally Relevant Thesis
2	Doctoral Student, Culturally Relevant Thesis
3	Ed.D, High School Administrator
4	Executive Director of Instructional Leadership, Teaching & Learning
5	Doctoral Student, Culturally Relevant Thesis
6	Assistant Director of Instructional Leadership, Teaching & Learning
7	Ed.D, Executive Director of Federal Programs and Student Support
8	Ed.D, Elementary Administrator
9	Doctoral Student, Culturally Relevant Thesis
10	Ed.D, Neural Education Trainer and Consultant

Each respondent ranked each question as (1) not relevant, (2) somewhat relevant, (3) relevant, (4) very relevant. The experts were encouraged to provide written feedback to improve the relevance of items to improve clarity and relevance to the central research question. To be considered for inclusion, a question needed a score of three or four. The outcome of this validation process, as shown in Appendix B, resulted in all of the items meeting the minimum threshold of 78% agreement (Polit et al., 2007; Yusoff, 2019). No questions were excluded following the validation process. In response to expert feedback, slight modifications were made to the interview questions before embarking on the pilot interview process (see Appendix C).

Pilot Test

Creswell and Guetterman (2019) advocate for the implementation of a pilot test before incorporating a modified or novel instrument into a study. This entails administering the instrument to a small group and refining it based on their interactions before its use with the actual study participants. In this study, the modified semi-structured interview protocol (see Appendix C) underwent a pilot test with three second-year teachers who had previously engaged in the new teacher induction series (CEE) the prior school year. Participants were apprised that the interview aimed to test the questions and protocol, and their responses would not be incorporated into the formal research study (Creswell & Guetterman, 2019; Marshall & Rossman, 2016).

The pilot test served the purpose of identifying potentially confusing questions, determining the average length of the interview, and observing reactions to each question on the protocol. The three pilot interviews were completed before any formal data collection began with the designated group of participants. The one-on-one interviews were conducted through Microsoft Teams, recorded, and transcribed. Microsoft Teams provided flexible scheduling, allowing participants to identify a time that worked well in their day, allowing for minimal disruptions. These pilot interviews prompted slight modifications to the questions to ensure clarity and the generation of data pertinent to the impactful facets of culturally responsive professional learning (Creswell & Guetterman, 2019; Marshall & Rossman, 2016). Based on the responses from the teachers during the pilot phase, the protocol was minimally amended before use with the participants (see Appendix C).

This qualitative information further highlighted the professional development strategies that lead to culturally responsive teaching implementation (Creswell & Guetterman, 2019).

Responses were recorded during the Teams call. Participants were given the option of keeping the camera off and logging in using the four-digit code previously selected to maintain confidentiality.

Analytical Methods

Multiple statistical analyses were employed to compare the means of the observational quantitative data collected using the CRIOP tool (Powell et al., 2017) once in September and again in January. The structured arrangement of observational data followed a format, where columns delineated distinct indicators, namely classroom relationships, assessment practices, instructional practices, discourse, and sociopolitical consciousness, while rows represented individual teachers. Descriptive statistics, encompassing means and measures of dispersion such as standard deviation, were systematically computed for each set of indicators independently across the temporal intervals of September and January. This statistical test aimed to identify discernible differences and measure the growth in the level of fidelity to culturally responsive teaching based on the results.

To ascertain the presence of statistically significant differences between the two data points, the researcher applied additional statistical tests, specifically paired-sample t-tests and the Wilcoxon signed-rank test. A paired samples t-test is used to compare two means on a single dependent variable, the Wilcoxon signed-rank test is the nonparametric equivalent of the paired t-test (Urdan, 2016). The data analysis was conducted using SPSS software (Tanner, 2012).

An analysis of patterns across the five indicators ensued, aiming to pinpoint areas of pronounced change or improvement. The scrutiny involved an examination of transformations among individual teachers and specific indicators. The subsequent phase of qualitative inquiry was initiated with the inclusion of five participants whose observational data indicated the most

substantial growth over time. This qualitative interview component was designed to offer a comprehensive understanding of the contextual intricacies associated with observed changes or the absence thereof. The utilization of qualitative data aimed to enrich the analysis by capturing nuanced aspects that quantitative measures alone may not fully elucidate, thereby contributing to a more comprehensive interpretation of the study's findings.

Qualitative data for this study were acquired through open-ended semi-structured interviews. Participants' responses were recorded and subsequently coded to unveil discernible patterns and overarching themes (Creswell & Guetterman, 2019). The interviews were recorded on Microsoft Teams allowing for instant accurate transcription. The researcher strategically organized the data around the theme of culturally responsive professional development components, utilizing in-vivo coding techniques to capture the nuanced language and individual experiences articulated by the participants. Conceptual codes pertaining to culturally responsive teaching and professional development were identified (Saldaña, 2021). To deepen the analysis of the interview data, the researcher employed the lens of andragogy, specifically evaluating the six assumptions posited by Knowles et al. (2020). These assumptions encompassed the participants' need to know, self-concept, prior experiences, motivation, readiness to learn, and orientation to learning. By scrutinizing the data through the prism of these assumptions, the study delved into potential connections or divergences between participants' preferred professional development activities and the theoretical framework of andragogy.

Researchers are encouraged to conceptualize, discuss, and formulate preliminary plans for collecting, organizing, analyzing, and interpreting data (Creswell & Guetterman, 2019; Marshall & Rossman, 2016). Marshall and Rossman (2016) outlined seven phases in qualitative analytical procedures, while Creswell and Guetterman (2019) outlined six similar steps, serving

as a foundational guide. The specific details of these steps could be adapted based on the study's assumptions and the employed qualitative genre. Depending on the conceptual framework and literature review, a study might focus on gathering specific types of information, suggesting key codes and categories.

Throughout the data collection process, the researcher established an organized system for data management, facilitating accessibility for thorough review and immersion. This immersion fostered a deep awareness of the information, leading to the identification of codes. Coding, involving the assignment of phrases or concise terms to specific data segments, played a pivotal role in interpreting patterns within the data. As emerging patterns came to light, data sharing common characteristics were amalgamated into distinct categories. The analysis was structured to code and categorize information, ultimately discerning emergent themes from the interviews (Saldaña, 2021). Reflecting on the frequency and patterns of these codes, paved the way for determining potential themes or categories. The researcher then engaged in the critical tasks of interpreting data patterns and exploring alternative understandings. The final phase involved articulating the results in a comprehensive report or proposal to summarize the nuanced meaning embedded in the data (Creswell & Guetterman, 2019; Marshall & Rossman, 2016).

The data collection process spanned five months allowing time for prolonged engagement and included two types of data, incorporating one quantitative and one qualitative measure for triangulation. According to Creswell and Guetterman (2019), triangulation is the practice of substantiating evidence from different types of data or methods of collection to ensure the research is accurate and credible. By utilizing both quantitative and qualitative methods and incorporating multiple sources of data such as observation and interviews, the study mitigated the risk of bias that could arise from relying solely on a single research method. Participants

were drawn from multiple school sites ranging from elementary to high school, with diverse

demographic profiles. Collaborating with a team comprising district-level directors, professional

development presenters, and instructional coaches, the researcher engaged in peer debriefing and

collaboration. Following the conclusion of individual open-ended semi-structured qualitative

interviews, participants had the opportunity to review a summary and validate their responses

through member checking. The documentation of steps taken to collect data, determine codes,

and synthesize them into themes was captured in an audit trail (Marshall & Rossman, 2016).

Limitations

Limitations are possible weaknesses or issues with a study that may impact the validity of

the results. Identifying these limitations provides an opportunity for future researchers to address

and fill any possible gaps when conducting further studies. Additionally, acknowledged

limitations aid the reader's ability to determine the generalizability of findings to other contexts

or populations (Creswell & Guetterman, 2019).

The Cultivating Equitable Educator series runs from September to May, this study took

place between August and February, limiting the scope of longitudinal data. The structure of this

professional development series provides year-long monthly classes and one-on-one coaching

support. The data gathered for this study captured insights midway through the induction series.

Future research examining the changes in culturally responsive teaching after a full year of

participation in the Cultivating Equitable Educators series could provide a more comprehensive

perspective on the evolution of culturally responsive teaching.

Quantitative observational data, acquired through the Culturally Responsive Instruction

Observation Protocol (see Appendix A) perspectives (Powell et al., 2017), was collected by three

instructional coaches. A significant effort was made to align the coaches' utilization of this

observational tool by thoroughly reviewing "Operationalizing Culturally Responsive Instruction: Preliminary Findings of CRIOP Research" (Powell et al., 2016). The researcher established clear expectations and timelines, and the coaching team engaged in a calibration process to ensure consistency in scoring the five observable indicators of culturally responsive instruction. Despite these measures, there may have been some degree of variability in interrater reliability. The incorporation of multiple data sources mitigated this limitation. This study specifically focused on the influence of professional development to successfully support the implementation of culturally responsive teaching strategies in the classroom. Further research to examine additional factors that could influence the effective implementation of culturally responsive teaching strategies, such as personal experiences, building-level structures, expectations, and support, would be beneficial.

The study's relatively small sample size, which included 14 participants in the quantitative phase and a subset of five teachers for qualitative interviews, challenges the generalizability of findings across a broader population of educators or different educational settings. Acknowledging this limitation is crucial as it directly impacts the study's ability to draw broad conclusions applicable beyond the specific context and participants involved. Findings based on a limited number of participants may not capture the full range of experiences, perspectives, and challenges faced by educators in diverse settings. While the study provides valuable insights within its scope, caution is warranted in extrapolating these findings to larger populations or varied educational contexts.

Despite efforts to maintain participant anonymity and minimize personal bias, the potential for selection bias in qualitative interviews remains a concern. Selection bias occurs when certain participants are more likely to participate in follow-up interviews based on their

enthusiasm for the professional development program or positive experiences. This bias can skew qualitative data towards more positive outcomes, leading to an incomplete or biased representation of educators' experiences and perceptions. To reduce potential bias, the researcher validated and piloted interview protocols to maintain consistency and employed member checking to validate findings, enhancing the credibility and reliability of qualitative data. These proactive measures contribute to a clearer understanding of the study's outcomes and help mitigate the impact of selection bias on the interpretation of qualitative findings.

Role of the Researcher

When conducting an educational study, an individual must stay mindful of any assumptions, biases, prior experiences, associations, or subjective motivation that might influence the research (Creswell & Guetterman, 2019; Marshall & Rossman, 2016; Maxwell, 2013). Although it may be impossible to eliminate any possible bias, beliefs, or theories of the researcher, it is critical to acknowledge and avoid the influence of these factors to the greatest extent possible (Creswell & Guetterman, 2019; Marshall & Rossman, 2016; Maxwell, 2013). At the time of this study, the researcher served as an administrator at a large public elementary school. Throughout nearly 30 years as an educator, the bulk of that time has been spent in service of historically marginalized populations specifically, Native American communities, families living in poverty, and students of color. The first 17 years of the researcher's career took place on a Native American reservation experiencing firsthand the direct detrimental impact of the historical use of schools as an attempt to eliminate the Indigenous population of this land (Brayboy & Tachine, 2021; Burgess et al., 2022; McCarty & Brayboy, 2021; Ragoonaden & Mueller, 2017).

As a school administrator for more than ten years, the researcher's commitment to equity and inclusion has driven the effort to create and maintain a school climate focused on ensuring dignity, safety, and respect for each student, staff, and community member. This has included the opportunity to become an experienced trainer and presenter on diversity and equity topics. Participation in a district Race and Equity Roundtable as well as serving on the district diversity committee has given the researcher firsthand experience listening to the voices and experiences of colleagues of color. This work has increased the commitment to creating and improving schools dedicated to embracing and celebrating diversity and fighting for educational equity and social justice.

This study took place in the eighth largest district in Washington state, which employs the researcher, none of the participants selected taught at the same school as the researcher. The research question focused on examining a professional development and new teacher induction program (CEE) that was not created or influenced by the researcher. The nearness of the induction model allowed for possible entry, and the size of the new class of teachers each year (n~125) allowed for a rich mix of people and interactions. The bulk of the data was quantitative and collected confidentially allowing for credibility and ethical practices. A small number of specifically invited novice educators participated in a one-on-one follow-up open-ended semi-structured interview allowing for qualitative data gathering. These teachers were not familiar to the researcher and participated without the knowledge of their evaluators, their identities were protected (Marshall & Rossman, 2016).

Although the researcher is not directly involved with the teacher induction series and its impact on the district or any potential participants, there was an awareness of any possible power dynamics as an administrator interviewing new teacher participants. The researcher continually

monitored any possible personal bias about what the most impactful professional development components may be. The research included several safeguards to keep participant identities confidential and the researcher's role as peripheral as possible until the final exit interview.

A list of willing participants was generated through an online survey and the collection of paper copies of the Informed Consent Form (see Appendix E). The researcher maintained a deliberate distance from direct interactions with the novice teachers. The compiled list of participants was confidentially shared with the three district mentors responsible for conducting the observations. To uphold participant anonymity, the observational forms provided to the researcher employed a four-digit code that has been assigned by the district level instructional coach as the sole identifier. This coding system ensured that no teacher names, locations, or subjects taught were disclosed in the collected data. Following the completion and analysis of both sets of observational data, the researcher engaged with the mentors to ascertain the names of the participants with the most significant growth. These teachers were then invited to participate in a subsequent follow-up interview.

The ethics of research required the elimination of divulging any participant feedback to building-level administrators. Useful study results that may benefit the district's professional development planning and new teacher support plan, were shared in the context of the overall dissertation in a way that eliminates any personally identifying information about building level or district personnel.

Chapter IV: Results

Culturally responsive teaching practices benefit all students, this is especially important for children from historically marginalized groups (Brownsword, 2019; Chu, 2019; Riordan et al., 2019; Williams, 2018). The evolving educational landscape has witnessed a heightened emphasis on equipping preservice and inservice teachers with instructional skills tailored to meet the needs of students from diverse cultural, ethnic, and linguistic backgrounds (Abaciogu et al., 2020; Ladson-Billings, 2021b; Samuels, 2018; Verdon, 2020). Teacher professional development constitutes an integral aspect of educators' continuous growth, yet the efficacy of the professional development initiatives is frequently overlooked (Cantrell et al., 2023). Unfortunately, assessments less frequently delve into how professional development influences instructional practices and seldom explore the degree to which changes in practice resulting from such development initiatives have tangible effects on student learning and achievement (Cantrell et al., 2023). There is a scarcity of research scrutinizing professional development within the Culturally Responsive Pedagogy (CRP) framework and investigating its impact on student learning (Bottiani et al., 2018). The evaluation of professional development often concentrates on the perceived quality of the delivery or content of a given session based on participant perception. The prevalent reliance on teacher self-reporting, self-efficacy scales, and interviews, coupled with a shortage of quantitative observational data, has impeded the attainment of the necessary objectivity required to validate shifts in instructional practice (Brownsword, 2019; Dwyer & Smith, 2020; Kimanen et al., 2019; Miller, 2012; Moore et al., 2021).

This study fills this gap by delving into the impact of a teacher induction series, focused on cultivation of equitable educators. Through an exploration of teachers' perceptions regarding

the beneficial components of their professional learning experiences, this research contributes to a nuanced understanding of ways to enhance teaching and learning. Results from the data in the study address the following research question:

1. What specific components of culturally responsive professional development impact the implementation of culturally competent instruction into classroom practice?

This mixed methods study employed an explanatory sequential design, characterized by a purposeful and sequential analysis of both quantitative and qualitative data (Creswell & Guetterman, 2019; Hoy & Adams, 2016; Maxwell, 2013). The initial phase involved the collection and evaluation of quantitative data utilizing the Culturally Responsive Instruction Observation Protocol (CRIOP) developed by Powell et al. (2017). Guided by the quantitative findings, qualitative data was acquired through individual semi structured interviews with teachers (Creswell & Guetterman, 2019).

Data from the study explores the impact of a teacher induction series on the implementation of culturally responsive teaching practices. The quantitative data derived from classroom observations offers a tangible indication of changes in instructional practices over the course of the study. Additionally, qualitative insights from teacher interviews contribute a deeper layer of understanding, elucidating the experiences and perspectives of the study participants. The process of data collection and analysis culminated in a member checking procedure, integrating participant verification through a visual representation of the data (see Appendix H). This mixed-method approach enhances the rigor and reliability of the study's findings, contributing to a more comprehensive exploration of the impact of professional development on culturally competent classroom instruction (Creswell & Guetterman, 2019; Marshall & Rossman, 2016).

The incorporation of andragogy as a theoretical framework played a pivotal role in this research. To delve deeper into the analysis and interpretation of the interview responses, the theoretical underpinning of andragogy, as articulated by Knowles et al. (2020), was systematically applied. Knowles' theory encompasses six core assumptions that delve into the intricacies of adult learners' needs, self-concept, prior experiences, readiness to learn, problem-solving orientation, and motivation to learn. Employing this andragogical theoretical perspective throughout the analysis and coding of qualitative interview responses aimed to discern potential correlations or discrepancies between participants' preferred adult learning activities, as indicated in the interview responses, and the foundational principles of andragogy. This qualitative methodological choice sought to uncover valuable insights into the alignment between participants' expressed learning preferences and the theoretical tenets guiding adult education.

Quantitative Results from Observations

In the quantitative observational phase of the research, fourteen certified teachers participated, all of whom were in their first year of teaching within the Harris School District. The cohort comprised twelve female and two male teachers. The participants were distributed across various educational levels, with nine teaching at the elementary school level, three at the junior high level, and two at the high school level. This diverse group of educators served in 12 schools, providing a comprehensive perspective on the school district's teaching landscape.

Quantitative data were collected through paired, non-evaluative observations conducted by district instructional coaches once in September 2023 and again in January 2024. The data collection employed the Culturally Responsive Instruction Observation Protocol (CRIOP, Powell et al., 2017) as a framework for capturing and documenting teachers' practices (see

Appendix A). The CRIOP evaluates the implementation of instructional strategies within six

major elements: classroom relationships, family collaboration, assessment practices,

instructional practices, discourse, and sociopolitical consciousness. Within each element, the

CRIOP delineates indicators of Culturally Responsive Instruction (CRI), prompting observers to

rate the consistent exhibition of these traits by teachers on a Likert scale ranging from never (0)

to consistently (4). Each CRI Indicator is enriched with examples of evidence from both

responsive and non-responsive classrooms, presenting a nuanced framework for thorough

analysis (Powell et al., 2017). Family collaboration was excluded from the scope of this study to

maintain a focused examination on classroom instruction.

With a sample size of 14 participants, it's essential to assess normality for both pre- and

post-observational data across all five Culturally Responsive Indicators before conducting a

paired samples t-test. The Kolmogorov-Smirnov test was used to examine normality in both pre-

and post-observational datasets. Both sets had a p-value of 0.200. Test statistics ranged from a

low of .118 (post-observation data for Critical Consciousness) to a high of .180 (post-

observational data for Instructional Practices). Despite variations, all p-values were above 0.05,

indicating no significant departure from normality. The Shapiro-Wilk test assessed normality in

the pre- and post-observational data. W statistics varied from .960 (pre-observation data for

Discourse) to .901 (post-observation data for Instructional Practices). Corresponding p-values

ranged from .717 (pre-observational Discourse data) to .116 (post-observation data for

Instructional Practices). All p-values exceeded 0.05, affirming no significant deviations from

normality (see Table 5). These results collectively confirm normality assumptions, endorsing the

use of a t-test for subsequent analyses. Parametric tests, when assumptions are met, offer

increased statistical power, improving their ability to detect genuine effects and providing more

interpretable results for a nuanced understanding of underlying data patterns.

Table 5.

Tests of Normality

	Kolmogorov-Smirnov*			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Observation Classroom Relationships	.148	14	.200*	.946	14	.497
Post-Observation Classroom Relationships	.140	14	200*	.921	14	.231
Pre-Observation Assessment Practices	.144	14	200*	.949	14	.546
Post-Observation Assessment Practices	.163	14	200*	.950	14	.555
Pre-Observation Instructional Practices	.155	14	200*	.939	14	.401
Post-Observation Instructional Practices	.180	14	200*	.901	14	.116
Pre-Observation Discourse	.147	14	200*	.960	14	.717
Post-Observation Discourse	.177	14	200*	.932	14	.327
Pre-Observation Critical Consciousness	.157	14	200*	.911	14	.164
Post-Observation Critical Consciousness	.118	14	200*	.939	14	.403

* This is a lower bound of the true significance.

A paired samples t-test was utilized to compare the observational data of teachers in September, before a series of training events, and again in January to measure the change in culturally responsive instructional strategies. The paired samples t-test was used to determine whether there is a statistically significant difference in the mean scores of the dependent variable (change in instructional strategies) between these two points in time (September and January) for the same group of teachers. The paired samples t-test is appropriate for assessing changes over time within the same group, providing a more focused and precise analysis for this specific research question (Urdan, 2016). The results of the paired samples t-test demonstrate a statistically significant difference (p = 0.001) and an average improvement of nine points in CRIOP scores between September 2023 and January 2024 (see Table 6).

Table 6.

Paired Samples t-Test

	Mean	Std. Deviation	Two-Sided p
Pre	34.29	15.188	
Post	43.29	20.533	
Pre-Post	9.00	8.209	.001

The paired samples t-tests comparing quantitative observational data using the CRIOP in September (fall) and January (winter) revealed significant changes in all five components of the Culturally Responsive Instruction. Classroom Relationships demonstrated improvement from a fall mean of 2.25 (SD = 0.86) to a winter mean of 2.63 (SD = 1.07), with a significant p-value of 0.005. Assessment Practices exhibited growth from a fall mean of 1.69 (SD = 0.79) to a winter mean of 2.3 (SD = 1.07), with a significant p-value of 0.005. Instructional Practices exhibited

growth from a fall mean of 1.89 (SD = 0.82) to a winter mean of 2.3 (SD = 1.06), with a

significant p-value of 0.021. Discourse also showed a significant increase from a fall mean of

1.71 (SD = 0.8) to a winter mean of 2.14 (SD = 1.25), with a p-value of 0.02. In Critical

Consciousness, there was a significant increase from a fall mean of 0.74 (SD = 0.67) to a winter

mean of 1.17 (SD = 1.89), with a significant p-value of 0.013 (see Table 7).

Table 7.

Change in CRIOP Components from Fall to Winter

	Fall		Winter		Sig	Effect Size
	Mean	SD	Mean	SD		
Classroom Relationships	2.25	.86	2.63	1.07	**.005**	.908
Assessment Practices	1.69	.79	2.30	1.07	**.005**	.896
Instructional Practices	1.89	.82	2.30	1.06	**.021**	.703
Discourse	1.71	.80	2.14	1.25	**.020**	.705
Critical Consciousness	0.74	.67	1.17	.89	**.013**	.719

Bold = significant change from Fall to Winter ($p < .05$). Values are calculated using Paired Samples t-test.

Through a comparison of the means and standard deviations of each component between

fall and winter observations, the paired samples t-tests demonstrated statistically significant

differences, indicative of meaningful changes unlikely to have arisen by chance. The resulting p-

values for each component of the Culturally Responsive Instruction (ranging from 0.005 to

0.021) were found to be less than the conventional significance threshold of 0.05, providing a

high level of confidence in rejecting the null hypothesis, suggesting that the observed

improvements in classroom relationships, assessment practices, instructional strategies,

discourse, and critical consciousness are not random fluctuations but rather genuine

advancements attributable to the professional development interventions implemented. The

alternative hypothesis can be accepted, affirming the positive impact of professional

development on diverse aspects of culturally competent classroom instruction, as assessed by the

Culturally Responsive Instruction Observation Protocol (CRIOP). These findings collectively

emphasize the efficacy of targeted professional development efforts in fostering culturally

responsive teaching practices and promoting equitable learning environments within educational

settings. Mean scores increased for all five of the elements, with the largest increase in

Assessment (+.61), Discourse (+.43), and Critical Consciousness (+.43). Although Classroom

Relationships demonstrated the least amount of growth (+.38), the observational data for both

fall and winter were highest in this component as compared to the other four (see Table 8).

Table 8.

Change in Mean CRIOP Components from Fall to Winter

	Fall		Winter		Change
	Mean	SD	Mean	SD	
Classroom Relationships	2.25	.86	2.63	1.07	.38
Assessment Practices	1.69	.79	2.30	1.07	.61
Instructional Practices	1.89	.82	2.30	1.06	.41
Discourse	1.71	.80	2.14	1.25	.43
Critical Consciousness	0.74	.67	1.17	.89	.43

To identify participants for the qualitative interview phase, quantitative observational

data were combined into pre- and post-observation totals. The calculated mean difference

between the initial and subsequent observations was determined to be 9 (see Table 9). Those

seven teachers who demonstrated growth exceeding the mean value of 9 were invited to arrange

a one-on-one semi-structured interview via Microsoft Teams. Five of the invited participants

scheduled an interview, one declined the invitation, and one did not respond.

Table 9.

Change in Participant Mean CRIOP Components from Fall to Winter

Phase One Participant	Pre	Post	DIF
1	43	65	22
2	50	66	16
3	59	75	16
4	26	41	15
5	25	39	14
6	61	74	13
7	40	51	11
8	14	22	8
9	37	45	8
10	19	26	7
11	17	22	5
12	39	43	4
13	28	22	-6
14	22	15	-7
	34.29	43.29	9.00

Qualitative Results from Interviews

Following the explanatory sequential study design, the identification of participants with

the highest growth in the quantitative observational phase (phase one) led to invitations for a

semi-structured, one-on-one interview (Creswell & Guetterman, 2019). The interview protocol

underwent scrutiny, including an expert panel review and a pilot process involving teachers from a similar demographic (see Appendix B). The researcher utilized this refined protocol to conduct five one-on-one interviews via Microsoft Teams, ensuring consistency and cohesiveness in the collected data (Creswell & Guetterman, 2019; Marshall & Rossman, 2016).

Interview Participants

The qualitative interview phase of the research involved five first-year certified teachers from the Harris School District. Within this cohort, five were female, three identifying as white, one as Latino, and one as white/Filipino. These participants spanned different educational levels, two located at the elementary school level, two at the junior high level, and one at the high school level. The subjects they taught encompassed a range, including special education, foreign language, and Career and Technical Education (CTE). This sample of educators collectively served across five distinct schools, offering diverse perspectives on their experiences with the Cultivating Equitable Educators series (see Table 10).

Table 10.

Interview Participant Demographic Data

Interview Participant	Location	Gender	Teaching Assignment	Pre CRIOP	Post CRIOP	DIF	Participant Rank
P1	Elementary #3	F	Dual Language	26	41	+15	4
P2	High School #2	F	CTE	59	75	+16	3
P3	Elementary #7	F	Special Education	40	51	+11	7
P4	Junior High #1	F	Foreign Language	61	74	+13	6
P5	Junior High #2	F	CTE	43	65	+22	1

Note: Names of schools and specific courses have been omitted to protect anonymity of participants

Themes

Participants' interview responses were recorded and subjected to coding, unveiling discernible patterns and overarching themes. The interviews, conducted on Microsoft Teams, allowed for instant and accurate transcription, contributing to the efficiency of data analysis. The researcher examined data related to the themes of effective professional development (PD), as outlined by Darling-Hammond et al. (2017). In-vivo coding techniques were employed to capture the nuanced language and individual experiences articulated by the participants.

To enhance the depth of the analysis, the researcher adopted the lens of andragogy, specifically evaluating the six assumptions posited by Knowles et al. (2020). These assumptions, encompassing participants' need to know, self-concept, prior experiences, motivation, readiness to learn, and orientation to learning, provided a theoretical framework to explore potential connections or divergences between participants' preferred professional development activities and the principles of andragogy.

Conceptual codes relevant to culturally responsive teaching and professional development were identified using a systematic approach (Saldaña, 2021). The process involved an initial review of transcripts, segmentation to break down data into manageable sections, assignment of concise terms to specific segments, and identification of recurring patterns. Categories were formed based on shared characteristics, and a frequency analysis was conducted to reflect on the prevalence of identified themes (Saldaña, 2021).

Through *a priori* coding, analysis of data collected during the semi-structured interviews revealed the presence of each of the seven elements of effective professional development outlined by Darling-Hammond et al. (2017). Among these elements, the category with the most frequently recurring codes was Feedback and Reflection (96), followed by Content Focused (72).

Modeling and Active Learning were amalgamated into a single theme (59). The last two

identified common themes were Coaching and Expert Support (49) and finally Collaboration and

Peer Support (26). The concept of Sustained Duration was implicitly referenced throughout the

interviews, but it did not feature prominently enough to warrant inclusion as a distinct theme in

the results. The five identified themes were consistently present across all five interviews,

indicating their significance in the participants' perceptions and experiences of professional

development (see Table 11).

Table 11.

Thematic Codes from Interviews

Thematic Codes	Frequency of Codes
Feedback and Reflection	*96*
Content Focused	72
Modeling and Active Learning	59
Coaching and Expert Support	49
Collaboration and Peer Support	26

Note: From Darling-Hammond et al. (2017).

Feedback and Reflection. Reflection and feedback emerged as the most prevalent

themes in the qualitative analysis, underscoring the pivotal role of these components in

improving the implementation of culturally responsive teaching practices. Participants in the

study provided valuable insights into how feedback and reflection contribute to their

professional growth and instructional effectiveness. Participants acknowledged the value of

resources provided by coaches, indicating that they revisited notes and materials to enhance

their understanding and implementation of new strategies. Participant 1 noted:

I would go back into… the emails that we would receive from our coaches after the meeting and I would look at those notes, the videos that they provided, and I would see what I was missing from what I had tried. And I would just take that and try it again the next day. And then… the inquiry chart was one that I was a little nervous to try. And so I did ask for my coach's help with that one. And so she helped me out a lot with the step process.

The utilization of provided follow-up resources demonstrates a proactive approach to self-reflection and continuous improvement. The availability of a support system, particularly access to instructional coaches for guidance and collaboration, emerged as a crucial factor in navigating challenges associated with implementing culturally responsive teaching practices. Participants expressed confidence in reaching out to specific individuals for assistance, fostering a sense of trust and collaboration. As Participant 2 stated, "It was nice to be able to…not only know that… I can work this strategy into my classroom, but also if I'm struggling, there's somebody I can reach out to specifically to brainstorm on how to make it work."

The ability to receive corrective feedback in real-time or shortly after attempting new strategies facilitated skill development and increased confidence in implementation. Participant 3 highlighted this by saying, "Hands-on [practice], the reiteration of the process, having them able to come in and see and give you corrective feedback either in the moment or right after I think helps as well."

Active engagement with feedback was identified as a key driver of successful implementation. Participants described scenarios where they actively sought assistance from instructional coaches, particularly in clarifying uncertainties or refining their approach to specific instructional strategies. Participant 4 shared:

I think some of it was just doing it the first time…and then within a week, telling our

instructional coach, "Can you come watch me? I'm struggling with the what/why

[square]." I did it and she gave me feedback and then I was like, I got it and now I'm

doing it every time…. When I've had help from my instructional coach to use

something… that was recently taught and given feedback on it, that's been helpful.

The eager willingness to receive feedback contributed to iterative improvement and

sustained implementation of culturally responsive practices. Participant 5 highlighted the

importance of modeling and emphasizing learning goals, demonstrating a commitment to

ongoing refinement of instructional practices:

They model a lot, like the what/why square… and they put a lot of emphasis on sharing,

learning goals and then… we want student voice reading the goal and then, "Why are we

doing that? …How is what we're doing gonna meet that?" So that's definitely something

that they've showed me a lot on how to do because I've…always had…a daily objective

on the board, but then it's just there…and I work with [coach] a lot. And so she's

definitely put a big emphasis on, like, no, you need to have kids read it and have it other

kids say why we're doing that.

The first qualitative theme, reflection and feedback, align closely with principles of

andragogy, emphasizing the importance of self-directed learning, which is reflected in the

proactive approach to self-reflection and continuous improvement demonstrated by the

participants. The emphasis on accessing support systems, particularly through instructional

coaches, resonates with the assertion that adults learn best in a supportive environment where

they can collaborate and seek guidance as needed. The value placed on immediate feedback

echoes the andragogy focus on the importance of feedback loops for effective learning and skill

development among adults. The proactive engagement with feedback, mirrors the andragogical emphasis on the self-motivation of adult learners, as participants actively sought assistance to refine their instructional practices, demonstrating a commitment to their professional growth and the implementation of culturally responsive teaching practices (Knowles et al., 2020).

Content Focused. Participants frequently articulated the incorporation of high leverage teaching strategies, strategically designed to enhance student engagement, provide vocabulary support, foster increased opportunities for student response, and establish an inclusive classroom community. Professional learning for teachers that is tailored to their specific context, integrated into their daily work, and centered around content is especially crucial for meeting the varied needs of students, and consequently, teachers, across various educational settings (Darling-Hammond et al., 2017). Identified high leverage equitable practices (Danielson, 2007; Drumright et al., 2016; Hammond, 2015; *Project GLAD® – Guided Language Acquisition Design*, n.d.) included Community Circle, microphone use, What/Why Square, Heads Together, Numbered Spoons, Cognitive Content Dictionary (CCD), and Call and Response.

Additionally, participants highlighted the effectiveness of the World Café, co-creation, Total Physical Response (TPR), "say it with me," inquiry chart, and colored concept chunking to enrich vocabulary and boost student engagement, and the implementation of the zero-noise signal for effective classroom management. Participant 1 reflected on the impact of the microphone practice, stating:

> The very first one I remember them… talking about… that microphone practice… the first time I heard that [I thought] … My voice is loud enough, I don't need it, but ever since I started practicing that like… my stress levels are way low…I don't have to be yelling in any way to get what I want across.

Many of these teaching strategies are derived from *Guided Language Acquisition Design* (*GLAD*), an instructional model designed to promote language acquisition, academic achievement, and cross-cultural skills development among students. GLAD incorporates research-based strategies to enhance language learning in diverse classrooms. The program focuses on integrating language and content instruction, utilizing visual aids, graphic organizers, and hands-on activities to support students in comprehending and producing language. *GLAD* places a strong emphasis on creating a culturally responsive and inclusive learning environment, aligning with your interest in culturally competent classroom instruction (*Project GLAD® – Guided Language Acquisition Design*, n.d.). Participant 2 shared, "I recently did the *GLAD* training…where we focused on some of the *GLAD* techniques and pairing those with what we've been learning in the Cultivating Equitable Educators series and they…go hand in hand with the Cultivating Equitable Educators..."

The *GLAD* strategies, valued by participants in both professional learning and student implementation, included co-creation, color chunking, Cognitive Content Dictionary (CCD), heads together, inquiry charts, numbered spoons, "say it with me," and Total Physical Response (TPR). Co-creation involves students in visually representing information to imprint new knowledge into long-term memory. Participant 4 mentioned, "Co-creation, the creating together of something, that's been really fun actually to Co-create stories in the language and as a learner it helped me feel like I had a voice, and my students feel like they're writing the story…"

Color chunking strategy involves using color coding to visually represent key concepts, categories, or relationships within content. Participant 4 recalled, "I've tried … using color chunking … if I write something in the target language, I'll use…black and then in English it's always in blue ... trying to have … a color coding or color chunking that I've seen modeled in

these meetings." CCD chart integrates language and content instruction, making content accessible and supporting language development. It helps students connect new information with their prior knowledge and language skills. It is designed to make content more accessible to students, promote language development, and support academic success. Participant 1 enthusiastically shared about her use of the CCD chart, "Having my students be able to tell me, 'I have the sentence right now for you,' … Them being excited to get it done today rather than wait for tomorrow because they understood the vocabulary is pretty great."

An inquiry chart is a visual tool facilitating inquiry-based learning, aiding students in organizing and exploring information. It is designed to help students organize and explore information as they engage in the process of inquiry, which involves asking questions, gathering evidence, and drawing conclusions. "Say it with me" facilitates language acquisition, with students repeating language guided by the teacher. TPR uses physical gestures to enhance memory retention and visually represent vocabulary. Numbered Spoons promotes teamwork, communication, and individual accountability. Participant 1 appreciated the collaborative nature of heads together and numbered spoons, "They're not afraid that if they're number is called out…that they're not gonna have any help to rely on. They know that their peers around them are there to support them." Similarly, Participant 5 shared about the strategies providing an opportunity for every student to participate in the discussion:

Pulling spoons and … numbering off. That's been the most impactful…I've learned that you have to give them time, like heads together, …trying to talk to your neighbor… giving them time to talk to the people around them before requiring them to answer so that they can check in, so somebody at their table can speak for everybody…

Participants emphasized the efficacy of call and response strategies, along with the World Café, within the Advancement Via Individual Determination (*AVID*) model. *AVID*, an educational program designed to equip students for college and career success, targets those in the academic middle, providing critical thinking skills, academic support, and college readiness strategies (*AVID® / Closing the Opportunity Gap in Education*, n.d.). The World Café, a collaborative learning strategy employed in *AVID* classrooms, involves students engaging in small-group discussions, moving between stations. At each table, they discuss specific topics or questions related to their studies, facilitating collaborative learning, critical thinking, and effective communication skills Participant 3 mentioned:

> Some of the equitable teaching practices that were in a few of our lessons like the numbered spoons or some of our *AVID* strategies ... the walk and talk or turn and chats and World Cafe. So equitable … students, really grasp onto those, and they really excel in a lot of those aspects because … Multiple teachers use them also so that they can get really good at them.

The findings from participants' experiences with high leverage teaching strategies, align closely with principles of andragogy, particularly the content-focused approach. Andragogy emphasizes the importance of engaging adults in active learning experiences that are relevant to their lives and build on their existing knowledge and experiences. The incorporation of strategies like co-creation, inquiry charts, and call and response techniques foster active participation and meaningful engagement among learners. The emphasis on creating an inclusive classroom community and utilizing collaborative learning activities reflects andragogical principles by acknowledging the diverse backgrounds and experiences of adult learners and promoting a

supportive learning environment where participants feel valued and empowered in their learning

journey (Knowles et al., 2020).

Modeling and Active Learning. In the qualitative interviews, the theme of modeling

and active learning emerged as a crucial factor influencing the successful implementation of

culturally competent instruction in classroom practice. Participant 2 encapsulated this sentiment,

expressing:

> The fact that they use the techniques during the training that they want us to use…they're
>
> actively doing it, even if they don't point it out at the time, they'll point it out after the
>
> fact… how easy it is to incorporate some of these strategies without even thinking about
>
> it… it just fits so seamlessly into teaching itself.

This quote underscored the importance of observing culturally responsive practices

through repeated modeling and demonstration, providing tangible examples for integrating such

pedagogies into teaching. Participant 4 echoed this sentiment, stating:

> I think the continual use of the…high leverage practices…using the microphone in our
>
> meetings… the modeling of …numbered spoons, heads together is another thing I've seen
>
> modeled enough. It's been a way for all of us at my learner table to talk equally, and so
>
> I've been using that and that's really influenced my practice as well, those high leverage
>
> [practices]. I try to do all of them, call and response, numbered spoons, heads together,
>
> what/why [square]… I use my microphone and then community circle, so seeing those
>
> things in the meetings every time has helped use those.

Witnessing effective strategies in action, facilitated by mentors or experienced

colleagues, educators gained practical insights into how to implement techniques like what/why

squares, peer collaboration, and classroom management tools. Participant 4 demonstrated this by sharing:

> Using TPRs or gestures, they will do that in our meetings and I'm trying to do that as well. "Say it with me," they'll often do in the meetings, so I always [use] "say it with me," and I'll do that with my students now. Then using the zero-noise signal, they would bring us back together at CEE … this is something I do every day or a call and response.

The demonstrative nature of professional development clarified the implementation process and enhanced educators' confidence and self-efficacy in applying culturally competent instruction. Both modeling and hands-on experiences served as catalysts for professional growth, expanding instructional strategies and fostering continuous improvement in teaching practices. Participant 3 emphasized this point, noting:

> It's easier for me to actually get my hands-on in the activities. So when we actually do the activities and get up… that really is what solidifies these activities. Because you would remember something that you did or you got up…you put your hands-on it and you can remember how that strategy works to better help your students work with that strategy as well.

Andragogy posits adults learn most effectively when new information is linked to their existing knowledge and experiences. Modeling and active learning serve as tangible examples that learners can readily relate to and apply within their own context, leveraging their prior experiences for deeper understanding and integration of new concepts. Adults demonstrate heightened receptiveness to learning when they perceive a direct relevance to their roles and responsibilities. Hands on learning and modeling play a crucial role in illustrating how abstract

concepts can be translated into practical applications, thereby enhancing learners' readiness to actively engage with the content and take ownership of their learning (Knowles et al., 2020).

Coaching and Expert Support. Instructional coaches played a crucial role in providing direct support and guidance to first-year teachers, fostering their growth in implementing culturally competent instruction. Participants underscored the importance of observing culturally responsive practices demonstrated by instructors and experienced colleagues, offering tangible examples for integrating such pedagogies into teaching. Participants highlighted the instructor's facilitation of hands-on experiences during professional development sessions, which served as catalysts for professional growth and bolstered educators' confidence and self-efficacy in applying culturally relevant teaching practices.

After strategies had been modeled in training, novice teachers expressed confidence attempting to implement new teaching techniques, knowing they could rely on their district-provided instructional coach for assistance. As Participant 1 noted, "I feel like I can try it out on my own and…if I'm not ready to try it on my own, I just knew that my coach was always there to offer help if I needed it." Between regular classroom visits, Participant 1 shared that she accessed resources provided by the coaches and mentors:

> I would go back into…the emails that we would receive from our coaches after the meeting, and I would look at those notes and the videos that they provided, and I would see what I was missing from what I had tried. And I would just take that and try it again the next day.

Instructional coaches, job alike mentors, and veteran teachers contributed valuable expertise and experiences, assisting teachers in navigating challenges specific to their classroom

contexts and fostering collaboration. Participant 2 expressed her appreciation for the access to multiple supportive experts, stating, "All of the trainers and all of the coaches have made themselves available to us to be able to brainstorm and talk about these things, even if they aren't our direct coach."

Participants mentioned working to adapt the high leverage teaching strategies into their unique teaching situations such as career and technical education (CTE) or a self-contained special education class. As summarized by Participant 2, "…for SPED the Cultivating Equitable series is a little bit trickier…. we've had coaches who… [available] … So we're able to talk and discuss, how we could rework whatever they're giving to us, to work with our students." The teachers mentioned brainstorming with veteran teachers in similar roles or reaching out to follow-up with presenters or coaches. For example, Participant 2 shared, "And then [*GLAD* Trainer] said if you have any questions or you need help brainstorming like take my email and touch base with me later."

A supportive professional relationship built on trust and empathy was key to successful teacher/mentor interactions that facilitated growth among participants. As Participant 3 shared:

> I think open understanding of problem solving and empathy from the instructors [were crucial] … that you will try a strategy and it may not go as well as you planned, but it doesn't mean we give up on that strategy or give up on specific students.

Participants emphasized the crucial role of instructional coaches and mentors in providing direct support and guidance, aligning with the principle of self-directed learning in andragogy. These educators actively sought out resources and assistance from experienced colleagues to enhance their professional growth and development, reflecting their autonomy and

self-directedness as adult learners. The emphasis on observing culturally responsive practices

modeled by instructors and experienced colleagues underscores the importance of practical

examples and hands-on experiences, which are central tenets of andragogy's focus on relevance

and problem-solving. The supportive professional relationships built on trust and empathy

between educators and mentors facilitate growth and learning, aligning with andragogy's

emphasis on collaborative learning environments (Knowles et al., 2020).

  Collaboration and Peer Support. The fifth crucial aspect of effective professional

development (Darling-Hammond et al., 2017) as identified by the participants, is collaboration

and peer support. Participants described various aspects of collaboration and support they

received from their peers and coaches, which influenced their implementation of culturally

competent instruction. Participant 1 highlighted the collaborative nature of the CEE program,

accentuating the invaluable opportunity to exchange knowledge and insights with peers during

monthly professional development sessions. This collaborative environment fostered a sense of

community and mutual support among participants. As Participant 1 shared, "It's great knowing

that we're in a space with a lot of other new teachers... constantly sharing... It's exciting…

knowing that we're gonna go in there and leave with a lot of stuff... literally so much

knowledge."

  Participant 2 echoed this sentiment, emphasizing the importance of collaboration with

other teachers and staff members. Despite this participant's perception that the program

primarily targeted general education, participants from special education felt included through

interactions with coaches who provided support tailored to their needs. The presence of coaches

at their table facilitated discussions on adapting strategies for their students, thereby enhancing

their confidence in implementing culturally competent instruction.

Several participants appreciated the program's organization, which grouped participants by grade level or department. Job alike table groups facilitated focused discussion and collaboration among educators with similar teaching contexts. For special education teachers, the allocation of dedicated tables allowed for targeted discussions on adapting strategies for different special education settings, promoting a deeper understanding of implementation strategies tailored to their specific needs. Participant 2 expressed, "Special education gets its own tables, and so I've been able to sit at tables with people who are in different positions in SPED…we've been able to collaborate and talk about like how it works [in other SPED programs]." Similarly, Participant 4 valued the opportunity to collaborate with teachers from similar departments or grade levels. Being grouped together allowed for meaningful discussions and sharing of ideas relevant to their teaching contexts. This peer support enhanced their learning experience and increased their confidence in implementing new strategies.

New teachers in the Harris School District are partnered with a district-level instructional coach as well as a job-alike mentor, often in the same building. Participant 5 emphasized the role of mentor teachers and peers in their learning journey. Mentors and experienced colleagues provided valuable support and guidance in areas such as individualized education plans (IEPs) and practical implementation of instructional strategies. Participant 5 provided a specific example, "I work with a lady in my building… she's one of the Special Ed teachers. She's helped me a lot with IEPs. That's definitely been one of my biggest challenges is figuring out how to accommodate IEPs." Peer interactions during meetings facilitated realistic discussions on implementation challenges and practical solutions, enhancing participants' understanding of culturally competent instruction. Participant 5 reflected, "I've learned a lot from the people

around me at those meetings that are there like to help figure out how to implement some of those things realistically."

The collaborative learning environment nurtured within the Cultivating Equitable Educator (CEE) program acknowledges and leverages the diverse experiences of its participants as adult learners. By fostering avenues for peer collaboration, mentorship, and individualized guidance from coaches, the program embraces the wealth of knowledge and expertise inherent in its learning community. The building of a supportive network resonates strongly with the principles of andragogy, which underscore the significance of tapping into adults' life experiences to enrich learning outcomes (Knowles et al., 2020). As adults are driven by connections to the learning process and value collaborative idea exchange, the program strategically capitalizes on this motivation by cultivating a sense of communal responsibility for learning outcomes. The program's emphasis on problem-centered and task-oriented learning experiences aligns with adults' preferences, providing opportunities for learners to collaborate in addressing challenges collectively. Through such collaborative interactions and peer support mechanisms, participants not only contribute their unique perspectives but also gain insights from the collective wisdom of their peers, thus enhancing their learning journey and fostering a deeper understanding of culturally competent instruction.

Summary

When examining the quantitative and qualitative findings concurrently, evidence emerges demonstrating significant progress in the implementation of culturally responsive teaching practices among participating first-year educators. This is evident through increases in mean scores across multiple Culturally Responsive Instruction (CRI) components. Specifically, notable improvements were observed in Assessment Practices, Discourse, and Critical

Consciousness, indicating a heightened focus on culturally responsive assessment methods, inclusive communication strategies, and social justice awareness within the classroom. These quantitative advancements align with the primary themes identified in the qualitative analysis, including feedback and reflection, modeling and active learning, and coaching and expert support. The qualitative data provide insights into the mechanisms underlying the observed improvements, highlighting the importance of tailored professional development strategies that promote reflective practice, active engagement, and collaborative learning among educators.

The increase in mean scores in Assessment Practices indicates significant growth in the implementation of culturally responsive assessment methods among the participating teachers. This improvement can be linked to the theme of "Feedback and Reflection" identified in the qualitative data. Teachers received training and support in providing constructive feedback to students that is culturally sensitive and fosters reflective practice. The emphasis on culturally responsive assessment methods encouraged teachers to incorporate diverse perspectives and experiences into their assessment practices, aligning with the principle of equity-based assessment highlighted in the qualitative findings. Participant 3 articulated, "We worked a lot on equitable practices and equitable strategies and equitable grading and equitable… tests and summatives and formatives and working with several different students at several different levels." Similarly, Participant 4 shared, "I better understood my need to do better with…formative assessment … That's a good way to help plan and modify, adapt, or adjust my teaching based on needs… I'm using different types of regular formative assessments." Participant 5 underscored the importance of providing, "Students choice …into how they're showing their learning." Teachers also mentioned the benefits of modeling and coaching, according to Participant 4:

It was formative assessments and giving us examples of what that might look like in our

subject area was extremely helpful for me because it was more applicable… We do all

kinds of…daily formative assessments either through movement or through thumbs or

red or greens true false or whiteboards.

The increase in mean scores in Discourse reflects enhanced communication and

interaction patterns within the classroom, indicative of a more inclusive and culturally

responsive learning environment. This improvement aligns with the theme of "Modeling and

Active Learning" identified in the qualitative analysis. The emphasis on active learning

strategies encouraged teachers to create opportunities for student voice and participation,

contributing to more meaningful and culturally responsive discourse in the classroom.

Participant 5 emphasized the value of facilitating learning options, "I've been trying to make

choice boards…to give more of that student voice." The modeling and active participation in the

co-creation strategy enabled Participant 4 to implement increased engagement in her classroom.

"The creating together of something that's been really fun…to Co-create stories in the

language…my students feel like they're writing the story because I'm getting input from them.

The growth in mean scores in Critical Consciousness signifies heightened awareness

among teachers regarding social justice issues and their ability to integrate these perspectives

into their teaching practice. This improvement can be linked to the theme of "Coaching and

Expert Support" identified in the qualitative findings. Teachers received guidance and

mentorship on incorporating critical pedagogy principles into their curriculum, fostering critical

thinking and social awareness among students. Participant 4 summed it up this way:

I really appreciate some of the things [the presenter] said when he was talking about

what someone's culture is and the fact that if [the lesson] is not relevant to someone …

learning won't happen…. Culture is the way that every brain makes sense of the world and [he] talked about the different deep culture, surface, shallow….It helped me understand…. unless we're creating strong bonds with the kids, [they] are not gonna… open up… I really wanted to do better at building relationships that are not just surface, so that they feel they're more open to light. So that was helpful.

Additionally, the emphasis on collaboration and peer support provided teachers with opportunities to engage in critical dialogue and reflection with colleagues, deepening their understanding of equity issues and enhancing their capacity to address them in the classroom.

By connecting the increase in mean scores in specific CRI components to the primary themes identified by participants, it is evident that the quantitative progress in culturally responsive teaching practices aligns with the qualitative experiences and perceptions of teachers undergoing professional development. This integrated approach highlights the interconnectedness of quantitative and qualitative data in providing a comprehensive understanding of the effectiveness of professional development components in promoting culturally responsive teaching practices.

Conclusion

This explanatory sequential mixed-methods study investigated the effectiveness of equity and diversity training components for educators in promoting culturally responsive teaching practices. Quantitative classroom observations were conducted twice during the academic year using the Culturally Responsive Instruction Observation Protocol (CRIOP) to assess growth from September 2023 to January 2024 among 14 first-year teachers. Following analysis of the observational data, five teachers showing the most improvement were selected for qualitative one-on-one semi-structured interviews. These interviews aimed to identify the training elements

contributing to enhanced implementation of equity-based professional practice. Analysis of the interviews revealed five main themes: Feedback and Reflection, Content Focus, Modeling and Active Learning, Coaching and Expert Support, and Collaboration and Peer Support, which resonated with effective professional development principles outlined by Darling-Hammond et al. (2017). Additionally, the qualitative data was analyzed through the lens of andragogy, revealing the presence of all six tenets: learner's need to know, self-concept, prior experience, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2020).

Chapter V: Discussion

As the nation's demographics undergo rapid transformation, schools are experiencing a surge in diversity among their student populations. This shift necessitates a corresponding evolution in teaching practices to effectively meet the needs of students from diverse cultural and linguistic backgrounds (Cantrell et al., 2023; Clark, 2020). However, the demographics of the teaching workforce, predominantly comprising middle-class White females who are primarily English speakers, increasingly diverge from those of the student body, highlighting a concerning disparity (National Center for Education Statistics, 2021). In 2020, out of the 48.1 million students enrolled in U.S. public schools, 26 million identified as Black, indigenous, or other people of Color (BIPOC), outnumbering the 22 million white students (National Center for Education Statistics, 2021). Despite this pronounced diversity, 79% of public school educators are white, underscoring a marked lack of representation relative to the student demographic (National Center for Education Statistics, 2021).

The ongoing trend towards a more diverse student population emphasizes the pressing need for teachers to be equipped with the knowledge and skills necessary to support and address the diverse needs of their students (Cantrell et al., 2023). Research underscores the significant impact of the widening gap between student and teacher demographics on both student achievement and teacher effectiveness (Spiess & Cooper, 2020). This demographic incongruity within the classroom poses a critical challenge, particularly amidst persistent calls for a more diverse and culturally aware workforce (García Coll & Ferrer, 2021).

Many scholars advocate for cultural awareness training as a vital strategy to bridge this diversity gap. Such training is essential for creating a more inclusive and equitable learning environment and for enhancing teacher effectiveness and student outcomes. As educators

navigate the complexities of an increasingly diverse educational landscape, addressing the disparity in cultural representation within the teaching profession becomes paramount for promoting academic success and fostering social cohesion (Kwok et al., 2021).

Research in this field has heavily relied on quantitative surveys to assess teacher perceptions, often neglecting the inclusion of observational tools to validate the alignment between a teacher's professed willingness to integrate culturally responsive teaching strategies and the actual implementation of these methods in the classroom (Abu-Tineh & Sadiq, 2018; Acquah et al., 2020; Cardona-Moltó et al., 2018; Clark, 2020; Spiess & Cooper, 2020). This study advanced current scholarship by adopting a multifaceted approach that combines an examination of quantitative classroom observations complemented by follow-up qualitative teacher interviews. By soliciting specific feedback on teaching and coaching methods, the study identified key factors that exert the most significant influence on the adoption and sustained application of culturally responsive teaching practices in educational settings.

This explanatory sequential mixed-methods study (Creswell & Guetterman, 2019) investigated the effectiveness of a professional development series designed to increase the implementation of culturally responsive teaching practices among teachers new to the district or new to the profession. The following research question guided this study:

1. What specific components of culturally responsive professional development impact the implementation of culturally competent instruction into classroom practice?

Summary of the Results

This study employed an explanatory sequential mixed method design, featuring a two-phase process, to assess the impact of various components of professional development for novice educators on the implementation of culturally responsive teaching in classroom settings.

The selection of this design stemmed from its ability to first examine quantitative data to determine if the training series resulted in the increased utilization of culturally responsive teaching practices, followed by an in-depth exploration through qualitative data. This sequential methodology facilitated a thorough examination of the research topic, yielding valuable insights into the relationship between professional development and classroom practice in promoting cultural responsiveness. This design provided several advantages, including increasing the validity and completeness of the findings, providing contextualization and richness to the results, and enhancing the credibility of the conclusions (Creswell & Guetterman, 2019).

This study examined a new teacher induction series that included monthly two-hour professional development sessions and access to a district-provided instructional coach. The Cultivating Equitable Educators (CEE) series served 138 teachers newly hired by the district and 65 first-year teachers. The division of the cohort into elementary and secondary groups for the professional development series facilitated more specialized content delivery. Participants engaged in instruction on coherent teaching practices, effective communication with students, discussion and questioning techniques, methods for engaging students in learning, utilizing assessment in instruction, and fostering flexibility and responsiveness.

The initial phase of this mixed methods study involved conducting quantitative classroom observations twice during the academic year using the Culturally Responsive Instruction Observation Protocol (Powell et al., 2017) to assess growth among 14 first-year teachers from September 2023 to January 2024. After careful analysis of the observational data, five teachers who exhibited the most significant growth in mean scores from fall to winter were identified. Subsequently, these selected teachers participated in qualitative one-on-one semi-structured interviews during the second phase. These interviews delved deeper into the identification of

specific training elements that contributed to the enhanced implementation of equity-based professional practices.

The Culturally Responsive Instruction Observation Protocol (CRIOP) employs a five-point Likert scale: never, rarely, occasionally, often, and consistently to indicate the implementation of specific instructional strategies related to five major elements (see Appendix A). These domains encompass classroom relationships, assessment practices, instructional practices, discourse/instructional conversation, and critical consciousness/diverse perspectives (Powell et al., 2017).

Paired samples t-tests comparing quantitative observational data using the Culturally Responsive Instruction Observation Protocol (CRIOP) in September (fall) and January (winter) demonstrated significant improvements in all five components of Culturally Responsive Instruction. Classroom Relationships showed improvement from a fall mean of 2.25 to a winter mean of 2.63, with a significant p-value of 0.005. Assessment Practices exhibited growth from a fall mean of 1.69 to a winter mean of 2.3, also with a significant p-value of 0.005. Instructional Practices displayed growth from a fall mean of 1.89 to a winter mean of 2.3, with a significant p-value of 0.021. Discourse/Instructional Conversation demonstrated a significant increase from a fall mean of 1.71 to a winter mean of 2.14, with a p-value of 0.02. In the aspect of Critical Consciousness, there was an increase from a fall mean of 0.74 to a winter mean of 1.17, with a significant p-value of 0.013.

The resulting p-values for each component of Culturally Responsive Instruction (ranging from 0.005 to 0.021) were all below the conventional significance threshold of 0.05. This provides a high level of confidence in affirming the positive impact of professional development on the implementation of culturally competent classroom instruction, as assessed by the

Culturally Responsive Instruction Observation Protocol (CRIOP). These findings collectively

underscore the efficacy of targeted professional development efforts in promoting culturally

responsive teaching practices and supporting equitable learning environments within educational

settings.

Each of the five Culturally Responsive Instruction (CRI) domains has multiple indicators.

The Classroom Relationships domain includes four indicators, Assessment Practices lists four,

Instructional Practices encompasses five, Discourse/Instructional Conversation incorporates four,

and Critical Consciousness/Diverse Perspectives comprises three for a total of 20 observable

indicators. To identify participants for the qualitative interview phase, quantitative observational

data were combined into pre- and post-observation totals. During the initial round of

observations in September, participant totals across all 20 indicators ranged from a high of 61 to

a low of 14. During the second round of observations four months later, composite scores ranged

from a high of 74 to a low of 15. Participants demonstrated growth ranging from 22 points to -7

points with a calculated mean difference of 9 points. Seven teachers who exhibited growth

exceeding the mean value of 9 were selected to arrange one-on-one semi-structured interviews

via Microsoft Teams. From this group, five educators agreed to participate in a qualitative

interview, during which they shared insights into their experiences with professional

development and the integration of culturally responsive practices in their classrooms (see

Appendix C).

The analysis of the qualitative interviews unveiled five primary themes: feedback and

reflection, content focus, modeling and active learning, coaching and expert support, and

collaboration and peer support, aligning with effective professional development principles as

delineated by Darling-Hammond et al. (2017). Furthermore, the qualitative data underwent

examination through the framework of andragogy, revealing the manifestation of all six tenets: the learner's need to know, self-concept, prior experience, readiness to learn, orientation to learning, and motivation to learn (Knowles et al., 2020).

Categorizing these themes into two overarching categories, namely structure and support, offers deeper insights into the essential elements necessary for cultivating effective professional development experiences for educators. The "structure" category encapsulates elements related to the organization and delivery of instruction, such as the content focus and the utilization of modeling and active learning techniques. This category underscores the foundational aspects of teaching that provide the framework for culturally relevant instruction. The "support" category emphasizes the assistance and resources provided to educators to enhance their implementation of culturally relevant teaching. This includes opportunities for feedback and reflection, personalized coaching and expert support, and collaborative engagement with peers to exchange knowledge and experiences (see Figure 3).

This delineation between structure and support illuminates the integrated approach necessary for fostering effective professional development experiences. By addressing both the foundational aspects of instruction and the supportive elements that aid educators in implementing culturally relevant practices, professional development initiatives can better meet the diverse needs of educators and enhance student learning outcomes.

Figure 3

Effective Professional Development Components

Theme One: Feedback and Reflection

Incorporating facilitated reflection and feedback within ongoing professional development opportunities is a critical factor in enhancing teacher success (Darling-Hammond et al., 2017; Kishimoto, 2018; Muñiz, 2020; Young et al., 2018). The deliberate allocation of time for reflection enables educators to critically examine their teaching practices, receive input, and enact meaningful improvements. Conversation and discussion with peers and mentors facilitate a deeper analysis of experiences and subsequent reflections, aiding individuals in making meaning of those practices (Anderson & Fees, 2018). This reflective process, when paired with timely and targeted feedback, supports ongoing growth, and encourages teachers to refine their instructional approaches (Darling-Hammond et al., 2017; Knowles et al., 2020; Skerrett et al., 2018).

This process of self-reflection demands that teachers acknowledge their ongoing journey of growth, both as individuals and as educators (Kishimoto, 2018; Muñiz, 2020). By embracing this reflective stance, educators can cultivate a deeper understanding of their practice and remain committed to lifelong learning and development. Educators benefit from engagement in self-reflection and critical analysis of their teaching methods and interactions with students from diverse backgrounds (Muñiz, 2020).

Participants provided valuable insights into how feedback and reflection contribute to their professional growth and instructional effectiveness. As teachers attempted to integrate equitable teaching practices, which were modeled and practiced during monthly professional development, the availability of timely feedback from instructional coaches, bolstered their willingness to incorporate new strategies. "It was nice to be able to… know that…OK, I can work this strategy into my classroom, but also if I'm struggling, there's somebody I can reach out to specifically to brainstorm on how to make it work," Participant 2.

Participants acknowledged the value of resources provided by coaches, demonstrating a proactive approach to self-reflection and continuous improvement. The availability of a support system, specifically, access to instructional coaches and seasoned peers for guidance and collaboration, was identified as crucial in navigating challenges associated with implementing culturally responsive teaching practices. Active engagement with feedback was highlighted as a key driver of successful implementation, with participants actively seeking assistance from instructional coaches to refine their approach to specific instructional strategies. By fostering a reflective stance and encouraging ongoing dialogue and feedback, educators can navigate the complexities of cultural diversity in the classroom and strive towards creating inclusive learning environments.

The theory of andragogy, as advanced by Knowles et al. (2020), posits six assumptions concerning the characteristics of adult learners, encompassing their needs, self-concept, prior experiences, readiness to learn, problem-solving orientation, and motivation to learn. The significance of reflection and feedback, underscored by both existing literature and the findings of this study, resonates with several andragogical principles, including self-directed learning, the creation of a supportive learning environment, intrinsic motivation, and problem-centered

learning. Through actively reflecting on their instructional practices and incorporating feedback from experienced coaches, veteran educators, and peers, instructors demonstrate a dedication to self-directed learning and continual growth. This desire for improvement stemmed from the intrinsic motivation to better serve their students and families. The reliance on a supportive learning environment originates from a problem-centered mindset. Invitational Andragogy underscores the importance of creating opportunities for meaningful dialogue and collaboration, encouraging learner autonomy and choice, providing timely feedback and support, and cultivating a culture of respect and inclusivity (Tipton & Wideman, 2021). The iterative process of reflection and feedback, grounded in the tenets of andragogy, empowers educators to take ownership of their professional growth and adapt their instructional approaches to better meet the diverse needs of their diverse student populations.

Theme Two: Content Focus

The critical importance of content-focused professional development in advancing culturally competent instruction, vital for student achievement in diverse classrooms, was emphasized by the participants and supported by research. Darling-Hammond et al. (2017) examined the efficacy of content-focused professional development initiatives aimed at enhancing educators' content knowledge. Their study revealed that training centered on content-focused learning significantly improves teacher effectiveness and student learning outcomes by deepening educators' comprehension of effective instructional strategies. The research stressed the necessity of aligning professional development with instructional goals to ensure relevance and effectiveness, offering educators opportunities to enhance their expertise, innovate teaching techniques, and integrate research-based practices into their classrooms (Darling-Hammond et al., 2017).

Culturally competent teaching involves recognizing and accommodating diverse cultural backgrounds, languages, and learning styles, which necessitates facilitation through professional development initiatives (Gay, 2018; Howard, 2019; Ladson-Billings, 2021b; Ukpokodu, 2020). Studies indicate that culturally competent instruction not only enhances student academic performance and engagement but also nurtures positive connections among educators, students, families, and communities (Acosta & Duggins, 2021; Barnett, 2020; Parkhouse et al., 2019). Successful educators utilize a range of strategies such as differentiation, scaffolding, modeling, and feedback to optimize student learning outcomes (Cavendish, Barrenechea et al., 2021; Powell et al., 2016). Effective teacher training prioritizes content-specific instruction tailored to individual classroom contexts, thereby facilitating the application of acquired knowledge and skills (Riordan et al., 2019). This approach ensures that teachers receive targeted support relevant to their classroom contexts, enhancing the transferability of knowledge and skills (Darling-Hammond et al., 2017).

While many teacher preparation programs offer theoretical knowledge on equity and social justice, they often inadequately address practical strategies for closing the gap (Riordan et al., 2019). Deficiencies in practical strategies for addressing equity and social justice within teacher preparation programs often result in classroom environments with inadequate equity and inclusion. Teachers who lack concrete skills and strategies to establish inclusive classrooms and adapt instruction to marginalized students' needs could be hindered from making a significant impact (Cantrell et al., 2023). To address this issue, professional development for practicing educators should prioritize equity, critical pedagogy, and active student engagement, while integrating student feedback to assess effectiveness (Riordan et al., 2019). Professional training opportunities should incorporate both theoretical frameworks and practical applications of

multicultural education and culturally responsive teaching practices (Sims & Fletcher-Wood, 2021).

Throughout each professional development session in this study, evidence-based equitable high leverage practices were taught, modeled, and then actively practiced by participants. The identified High Leverage Equitable Practices included Community Circle, microphone use, What/Why Square, Heads Together, Numbered Spoons, Cognitive Content Dictionary, and Call and Response (Danielson, 2007; Drumright et al., 2016; Hammond, 2015; *Project GLAD® – Guided Language Acquisition Design*, n.d.). Participants frequently emphasized the successful incorporation of these high leverage teaching strategies aimed at improving student engagement, enhancing vocabulary instruction, increasing opportunities for student response, and creating an inclusive classroom community. Participant 2 noted, "It's really nice because those who can verbally participate can verbally participate, but those who can't, can use their communication devices and things like that to still participate and add to the conversation." These strategies, tailored to the specific classroom context of the participants, were recognized as essential to meeting the diverse needs of students across various educational settings. Teachers expressed the seamless incorporation of these strategies into their teaching practices, noting their ease of implementation and alignment with equitable practices. Additionally, participants valued the evidence-based nature of these strategies and appreciated their tangible and practical aspects, which allowed for quick implementation without the need for extensive lesson plan modifications.

Participants' experiences with high leverage teaching strategies in content-focused professional development resonate strongly with specific assumptions from andragogy, as proposed by Knowles et al. (2020). Participants' emphasis on the opportunity to adapt the high

leverage strategies to their specific learning contexts reflects the andragogical assumption of self-concept, wherein adults are recognized as responsible for their own learning and decisions. By actively selecting and implementing these strategies, educators show autonomy and agency in addressing the diverse needs of their students. Participants' appreciation for the integration of these strategies into their daily lessons aligns with the andragogical principle of readiness to learn, suggesting that adults are motivated to learn when they perceive the learning goals as relevant and applicable to their immediate context. The recognition of these equitable practices as research-based further supports the andragogical assumption of orientation to learning, emphasizing adults' preference for practical, applicable knowledge that can be readily implemented in their professional practice.

Theme Three: Modeling and Active Learning

This study and multiple previous studies collectively underscore the significance of modeling and active learning in promoting culturally responsive teaching practices and enhancing teacher preparation and professional development. There continues to be a deficiency in teacher preparation programs, which often neglect to effectively model culturally responsive practices, resulting in challenges for novice teachers in translating theory into classroom practice (Ladson-Billings, 2021b). To address these gaps, in-service teachers require ongoing professional development opportunities that incorporate active learning strategies, small group discussions, collaboration, modeling, and mentoring (Acquah & Szelei, 2020; Álvarez Valdivia & González Montoto, 2018; Cavendish, Barrenechea et al., 2021; Darling-Hammond et al., 2017; Kishimoto, 2018; Muñiz, 2020). Active learning strategies are particularly crucial in professional development, enabling teachers to experientially engage with the learning process they aim to

foster in their students, leading to deeper understanding and improved instructional practices (Darling-Hammond et al., 2017; Riordan et al., 2019).

Modeling from seasoned practitioners emerges as a vital component of effective professional development, furnishing teachers with clear models of best practices. Learning from respected practitioners enables teachers to deepen their understanding of effective strategies and refine their instructional practices. Modeling culturally responsive teaching strategies in professional development settings is pivotal for fostering teachers' commitment to effectively serving diverse student populations (Abu-Tineh & Sadiq, 2018; Acquah & Szelei, 2020; Acquah et al., 2020; Darling-Hammond et al., 2017; Gladney et al., 2021; Skerrett et al., 2018).

The qualitative interviews revealed that modeling and active learning are crucial factors influencing the successful implementation of culturally competent instruction in classroom practice. Participants emphasized the importance of observing culturally responsive practices through repeated modeling and demonstration, which provided tangible examples for integrating such pedagogies into teaching. Witnessing effective strategies in action, facilitated by mentors or experienced colleagues, educators gained practical insights into how to implement techniques such as "what/why squares," heads together, numbered spoons, community circles, and call and response.

The demonstrative nature of professional development clarified the implementation process and enhanced educators' confidence and self-efficacy in applying culturally competent instruction. Both modeling and hands-on experiences served as catalysts for professional growth, expanding instructional strategies and fostering continuous improvement in teaching practices. Participants highlighted the value of actively engaging in activities during training sessions, as it solidified their understanding of the strategies and their potential impact on student learning.

Activities like community circles, call and response, and collaborative exercises like heads together were particularly beneficial, as they helped teachers grasp the subtle nuances of each strategy and increased their confidence. These findings underscored the importance of ongoing support and experiential learning opportunities in promoting effective culturally responsive teaching practices.

The research findings regarding the positive impact of modeling and active learning align closely with several fundamental assumptions of andragogy (Knowles et al., 2020). The emphasis placed on providing adult learners with opportunities to engage in learning experiences resonates with the assumption that adults learn best when they are actively involved in the learning process. Through hands-on activities and modeling, coaches and trainers facilitate active involvement, enabling adult learners to apply new concepts directly to their professional contexts. The focus on practical, relevant, and experiential learning experiences reflects the assumption that adults are motivated to learn when they perceive the learning outcomes as immediately applicable to their personal and professional lives. By demonstrating culturally responsive teaching practices and modeling effective instructional strategies, educators provide tangible examples that resonate with the real-world challenges and contexts encountered by adult learners in their educational settings.

Theme Four: Coaching and Expert Support

Coaching and expert support play crucial roles in effective professional development, addressing individual needs and sharing expertise on content and evidence-based practices (Gladney et al., 2021; Holliday, 2021; Shorb, 2021). This personalized support addresses individual needs and facilitates the implementation of evidence-based instructional strategies, leading to continuous improvement among educators (Darling-Hammond et al., 2017). Bradshaw

et al. (2018) observed that coached participants demonstrated increased self-efficacy and improved culturally responsive behavior management. Ongoing coaching is deemed beneficial to sustain positive student learning outcomes over time (Bradshaw et al., 2018; Darling-Hammond et al., 2017; Gladney et al., 2021). Educational stakeholders should prioritize recurring professional development opportunities alongside continuous coaching and mentoring for current teachers (Acquah et al., 2020; Bybee et al., 2021; Darling-Hammond et al., 2017; Gladney et al., 2021).

The qualitative interview findings highlight the significant impact of instructional coaches in supporting first-year teachers in implementing culturally competent instruction. Participants emphasized the importance of observing culturally responsive practices and receiving tangible examples for integrating such pedagogies into their teaching. Novice teachers expressed confidence in implementing new techniques after training and relied on their instructional coach for assistance. Additionally, job-alike mentors and veteran teachers provided valuable expertise and experiences, assisting teachers in navigating classroom challenges, and fostering collaboration. Participants worked to adapt teaching strategies to their unique contexts, such as career and technical education or special education, through brainstorming with colleagues and reaching out to presenters or coaches. A supportive professional relationship built on trust and empathy was identified as crucial for successful teacher/mentor interactions that facilitated growth among participants.

The personalized support provided by instructional coaches aligns with the andragogy principle of self-directed learning, allowing teachers to take ownership of their professional development journey. By adapting coaching strategies to individual needs and offering tangible examples for integrating new pedagogies, coaches empower educators to actively engage in their

learning process, fostering a sense of autonomy and self-efficacy. The collaborative problem-solving facilitated by coaches resonates with the principles of experiential learning and collaborative learning. Through regular classroom visits, access to resources, and collaborative discussions with mentors and veteran teachers, educators engage in reflective practice and apply new knowledge and skills in authentic classroom settings, leading to meaningful learning experiences and professional growth. The supportive professional relationships built on trust and empathy between teachers and mentors exemplify the importance of a supportive learning environment, which is fundamental to adult learners' motivation and engagement (Knowles et al., 2020).

Theme Five: Collaboration and Peer Support

Participants and researchers alike emphasize the critical importance of collaboration and peer support in fostering cultural competence among educators. Regular and ongoing meaningful interactions, such as observing, collaborating, and receiving feedback from experienced teachers, provide invaluable support in the successful implementation of culturally responsive teaching practices (Álvarez Valdivia & González Montoto, 2018; Anderson & Fees, 2018; Aronson, 2020; Cormier, 2021; Johnson et al., 2021). Ongoing professional development opportunities that incorporate active learning strategies, small group discussions, and collaboration significantly benefit practicing educators (Acquah & Szelei, 2020; Álvarez Valdivia & González Montoto, 2018; Cavendish, Barrenechea et al., 2021).

Collaboration with peers is a fundamental characteristic of effective professional development, enabling the exchange of ideas and learning from one another (Knowles et al., 2020; Riordan et al., 2019; Skerrett et al., 2018). Collaborative learning environments facilitate the sharing of expertise and diverse perspectives, thereby enhancing teacher learning and

fostering a sense of collective efficacy (Darling-Hammond et al., 2017; Powell et al., 2016).

Researchers underscore the necessity for ongoing opportunities for practice and collaboration to

refine educators' thinking about cultural competence (Cavendish, Barrenechea et al., 2021;

Senyshyn & Martinelli, 2021; Szelei et al., 2020; Williams, 2018). Teachers benefit from

engaging in collaborative activities such as participating in professional learning communities,

study groups, or grade-level teams, which are crucial for long-term changes in professional

practice (McNeilly et al., 2022; Yang et al., 2022). Embedding and supporting professional

collaboration are critical components of effective professional development, as teaching and

learning increasingly prioritize the building of collaborative learning communities (Darling-

Hammond et al., 2017; Skerrett et al., 2018).

The qualitative interviews revealed the significance of collaboration and peer support as a

crucial aspect of effective professional development. Participants highlighted various forms of

collaboration and support received from peers and coaches, which influenced their

implementation of culturally competent instruction. Participants emphasized the collaborative

nature of the CEE program, where monthly professional development sessions provided an

invaluable opportunity for peer knowledge exchange and insightful dialogue. Within this

collaborative environment, a sense of community and mutual support flourished, contributing to

a rich learning experience for participants.

Grouping participants by grade level or department facilitated focused discussions and

collaboration, with specialized teachers benefiting from dedicated tables for targeted discussions

on adapting strategies for different settings. Novice teachers valued collaborating with teachers

from similar departments or grade levels, as it allowed for meaningful discussions and sharing of

relevant ideas, enhancing their confidence in implementing new strategies. Peer interactions

during meetings facilitated realistic discussions on implementation challenges and solutions, further enriching participants' understanding of culturally competent instruction.

Each new teacher was partnered with both a district-provided instructional coach and a building-level mentor who held a similar position, such as teaching the same grade or subject. Participants emphasized the role of these mentors and experienced colleagues in providing valuable support and guidance, particularly in navigating the implementation of instructional strategies. They could also seek assistance and guidance on a wide range of issues, from broader concepts like assessment practice or more specific situations such as forming connections with individual students.

The principles of andragogy, particularly learner autonomy and collaborative learning, intertwine with the advantages of peer support. In fostering an environment where adult learners take ownership of their educational journey, collaboration with peers becomes integral. As adult learners engage in collaborative activities, such as peer discussions and knowledge exchange, they exercise their autonomy by actively participating in the co-construction of knowledge. This collaborative process not only enhances individual learning but also promotes a sense of collective efficacy within the learning community. The peer interactions facilitated by andragogy principles create opportunities for reflective dialogue and feedback, which are essential for refining instructional practices and fostering continuous improvement.

The findings from these studies not only underscore the symbiotic relationship between specific aspects of andragogy and the benefits derived from collaboration and peer support but also highlight the effectiveness of Invitational Andragogy in fostering a culture of continuous learning. This approach not only promotes collaboration but also cultivates inclusivity, ensuring that all learners feel valued and supported in their educational endeavors. Teaching and learning

through the lens of Invitational Andragogy actively promotes collaboration and fosters a culture of continuous learning, wherein educators serve as facilitators of knowledge exchange and co-constructors of learning experiences. Professional educators can leverage collaboration and peer support to create enriching learning experiences that empower adult learners to cultivate cultural competence and enhance their professional practice (Knowles et al., 2020; Mews, 2020; Tipton & Wideman, 2021).

Conclusion

Culturally responsive teaching practices are increasingly recognized as essential for fostering inclusive and equitable learning environments in classrooms across the United States (Anyichie et al., 2023; Cantrell et al., 2023; Kwok et al., 2021; Pasternak et al., 2023). By integrating students' cultural backgrounds, experiences, and perspectives into instructional strategies, educators can better engage students, validate their identities, and enhance their academic success (Acquah et al., 2020; Gay, 2018; Ladson-Billings, 2021b; Shorb, 2021) Embracing culturally responsive teaching not only acknowledges the diverse cultural landscapes of students but also empowers them to develop critical thinking skills, empathy, and respect for others' perspectives (Davidson, 2021; Note et al., 2021; Tipton & Wideman, 2021).

Research suggests that culturally responsive pedagogy positively impacts student motivation, achievement, and social-emotional well-being, particularly among marginalized and minoritized groups. It fosters a sense of belonging and cultural pride, which are essential for students' holistic development. Culturally responsive teaching practices are vital for promoting educational equity and preparing students for success in an increasingly diverse and interconnected world (Acquah et al., 2020; Gay, 2018; Housel, 2020; Ladson-Billings, 2021b; Shorb, 2021).

Prior research on the efficacy of professional development in education predominantly relied on surveys to measure teacher self-efficacy and perceptions, often neglecting observational tools to substantiate and quantify the correlation between a teacher's willingness to include culturally responsive teaching strategies and the actual inclusion of these methods in the classroom (Abu-Tineh & Sadiq, 2018; Acquah et al., 2020; Cardona-Moltó et al., 2018; Clark, 2020; Spiess & Cooper, 2020). This mixed-methods study contributes to the existing literature by integrating both quantitative classroom observations and qualitative teacher interviews to examine whether the perceived improvement in the understanding of culturally responsive pedagogy translates into a change in professional practice. Following the observation and measurement of increased implementation of culturally responsive teaching practices, subsequent interviews provided comprehensive insight into the specific components of professional development that facilitated increased utilization of equitable teaching practices.

Participants in this study consistently identified common factors that positively influenced their professional growth in the implementation of culturally responsive teaching practices. Through thorough analysis of the gathered data, several prominent themes emerged, shedding light on critical aspects instrumental to their progress. Participants emphasized the significance of engaging in reflective practices and receiving constructive feedback. The data emphasized the essential role of collaboration and peer support in cultivating a supportive learning community. The teachers highlighted the effectiveness of modeling and active learning techniques in facilitating the adoption of culturally responsive teaching strategies. The provision of coaching and expert support emerged as a critical component in guiding educators through the implementation process. Lastly, the study emphasized the importance of content-based learning,

wherein participants received targeted instruction and resources tailored to their specific subject areas.

During each professional development opportunity, research-based equitable high leverage practices (Danielson, 2007; Drumright et al., 2016; Hammond, 2015; *Project GLAD® – Guided Language Acquisition Design*, n.d.) were taught, modeled, and then participants engaged in actively practicing each strategy. Time was embedded into each session for teachers to reflect on each practice, discuss with peers, and receive feedback from mentors or coaches to modify the strategies to fit their specific educational context. Upon returning to their classrooms, participants took the opportunity to integrate the high leverage practices into their instructional delivery. Often, this attempt proved successful due to the multiple demonstration and practice opportunities. In the instances when the instructor did not experience the successful implementation of this new practice, they were encouraged to reflect, access provided resources, and collaborate with their instructional coach or experienced job-alike mentor to refine their understanding and implementation of each vetted and modeled equity strategy.

Participants consistently emphasized the value of engaging in reflective practices and receiving constructive feedback, which fostered critical self-assessment and refinement of teaching strategies. The study revealed the pivotal role of collaboration and peer support in creating a supportive learning community where educators could exchange ideas, share experiences, and collectively problem-solve challenges related to culturally responsive instruction. The incorporation of modeling and active learning techniques emerged as another critical factor, allowing participants to observe effective teaching practices in action and actively engage in hands-on learning experiences. The provision of coaching and expert support proved instrumental in guiding educators through the implementation process, offering personalized

guidance and assistance tailored to their specific needs and contexts. The study highlighted the importance of content-based learning, wherein participants received targeted instruction and resources focused on integrating culturally responsive practices within their subject areas. By grounding professional development in content-specific contexts, educators were better equipped to apply these practices authentically and effectively in their classrooms.

These findings underscore the multifaceted nature of professional growth in culturally responsive teaching and emphasize the significance of comprehensive support systems that address the diverse needs of educators. Moving forward, leveraging these identified factors can inform the development of more robust professional development initiatives aimed at promoting equitable and inclusive educational practices in diverse learning environments.

Recommendations for Further Research

This study's findings effectively addressed a previously identified literature gap by employing a comprehensive methodology that integrates quantitative classroom observations and qualitative teacher interviews. This approach enabled the identification of data-based improvements in the implementation of culturally responsive teaching practices. While this study marks a significant step forward, there remains a continued need for further research to deepen our understanding and facilitate the development of actionable strategies. Several areas warrant consideration for future research on effective professional development components focused on the increased utilization of strategies designed to create equitable learning environments.

Multiple factors highlighted in the literature on culturally responsive teaching did not emerge in this study. Despite numerous studies underscoring the significance of intercultural competence and multicultural attitudes, these themes did not arise in the current research. Participants engaged in minimal discussion regarding race, culture, inequality, or diversity. Only

one out of the five participants acknowledged the inclusion of these topics in the training series, indicating that while these topics may have been covered, they were not perceived as crucial by most participants in their readiness and capacity to enhance culturally competent instruction. Participants consistently emphasized the practical implementation of concrete equitable instructional practices.

It is noteworthy that the initial phase of the research involved quantitative observational data from a cohort of 14 participants. Among these novice teachers, half exhibited significant improvements in their implementation of culturally responsive teaching practices. Subsequently, this cohort was selected for participation in qualitative interviews. It is conceivable that these educators experienced greater growth due to external factors, potentially including a heightened level of intercultural competence, thereby augmenting their receptiveness to modifying instructional practices to creating more equitable learning environments.

Further research aimed at exploring additional factors influencing the effective implementation of culturally responsive teaching strategies is crucial for advancing understanding and refining professional development initiatives. Delving into various aspects such as personal experiences, building-level structures, expectations, and support systems can provide valuable insights into the multifaceted nature of culturally responsive pedagogy.

This research focused on specific external factors including professional development activities and the role of ongoing coaching and mentoring in fostering culturally responsive teaching practices. However, it did not delve into exploring the potential impact of teachers' personal and professional backgrounds, including factors such as cultural heritage, upbringing, and educational experiences on their commitment to improving the incorporation of culturally responsive teaching. Including a demographic survey in future research to collect background

information about the participants could add another layer of insight and understanding. Such information could offer a deeper understanding of how individual educators' diverse backgrounds may shape their teaching practices and perspectives on cultural responsiveness. By gaining insights into these personal and professional factors, educators and educational institutions can better tailor professional learning opportunities to meet the unique needs and preferences of teachers from various backgrounds.

This study examined the impact of district-level support, including monthly professional development sessions and regular access to an instructional coach. Incorporating an analysis of the influence of school-level structures and policies on the implementation of culturally responsive teaching could provide valuable additional context. This entails examining the role of leadership, organizational culture, resource allocation, and decision-making processes in supporting or hindering teachers' efforts to incorporate culturally responsive practices into their classrooms.

Exploring the impact of expectations, both implicit and explicit, on teachers' adoption and sustained use of culturally responsive teaching strategies could yield valuable insights. This includes examining the alignment between school or district expectations, teachers' personal beliefs, and instructional practices, while also considering the influence of accountability measures and evaluation systems. By considering the broader organizational and societal contexts in which teaching occurs, researchers can identify strategies for overcoming barriers and fostering a more inclusive educational environment.

The five participating educators in this study demonstrated a higher level of growth in the implementation of culturally responsive teaching practices than their peers. This current research did not assess the potential impact of this increased utilization of equitable teaching strategies on

student achievement. Further research should investigate the relationship between teachers' implementation of culturally responsive practices and various dimensions of student learning outcomes, including academic achievement and social-emotional development. Academic achievement is important as a primary education goal. Future researchers can delve into whether and how culturally responsive teaching practices impact students' academic success across different subject areas and grade levels.

Examining the effects of culturally responsive teaching on students' social-emotional development is essential for promoting holistic well-being and fostering positive learning experiences. Researchers can investigate how culturally responsive practices influence students' sense of belonging, self-efficacy, and cultural identity development. By exploring these dimensions, through student surveys or interviews, researchers can gain insights into the social and emotional benefits of culturally responsive instruction, which are vital for creating supportive and inclusive school climates where all students feel valued and respected.

This study aimed to incorporate the experiences of educators working in diverse settings. During the quantitative observational phase, three instructional coaches observed 14 participants. A limitation of the current study focused on the gathering of observational data. With three different coaches conducting the collection of data, there was room for inconsistencies in the rating of each component. Further research would benefit from assigning a consistent observer to collect all quantitative data, ensuring greater reliability and consistency in the findings.

Implications for Professional Practice

When offering recommendations for designing professional development aimed at enhancing educators' fluency in implementing culturally responsive teaching practices, several crucial factors must be considered. Assessing the effectiveness of such professional development

through the lens of student achievement entails various perspectives on defining success. Traditionally, success has been gauged by standardized test scores, while others view significant growth in skills and knowledge as indicative of success (Asterhan & Lefstein, 2024; Ladson-Billings, 2021a). Depending on the criteria for student success, different classroom strategies may be deemed advantageous, necessitating adjustments in the delivery of professional learning activities.

Once a set of effective professional development components has been established, their efficacy is influenced by a myriad of external factors, including district and school structure and culture, curriculum materials, and leadership (Asterhan & Lefstein, 2024). Furthermore, the effectiveness of adult learning approaches hinges on their enactment. Discrepancies between the design and implementation of professional development are common (Patfield et al., 2023). Even with robust and effective forms of professional development, successful implementation is not guaranteed (Patfield et al., 2023).

This study yields numerous implications for professional practice, particularly in shaping the development and delivery of professional development centered on implementing culturally responsive teaching strategies. The data highlights the pivotal role of integrating reflective practices, content-based learning, modeling, and active learning techniques, as well as providing coaching and expert support to increase the implementation of equitable teaching practices.

Reflection and Feedback

High-quality professional development dedicates time to feedback and reflection. Encouraging educators to engage in reflective practices is paramount for fostering growth and enhancing instructional effectiveness. By providing structured opportunities for self-reflection and feedback within and between professional development sessions, educators can critically

examine their own biases, assumptions, and teaching strategies. This time allows teachers to receive constructive input on their practice, analyze instructional approaches, and collaboratively explore potential adjustments (Darling-Hammond et al., 2017; Hill & Papay, 2022; Kishimoto, 2018; Muñiz, 2020).

Content Focused Learning

This research underscores the critical importance of designing professional development initiatives to directly align with the content and instructional practices educators implement in their classrooms. Rather than employing generic approaches, professional development should concentrate on tangible teaching methods and subject matter, ensuring it addresses the specific needs and challenges encountered in individual instructional contexts. Prioritizing changes in instructional practices, such as implementing new teaching strategies or pedagogical approaches, leads to more substantial improvements in student achievement compared to efforts solely focused on increasing subject matter knowledge. By emphasizing concrete instructional strategies for practical application, professional development equips teachers with the necessary tools and equitable teaching practice to effectively engage students and facilitate meaningful learning experiences (Aronson, 2020; Byrd, 2021; Darling-Hammond et al., 2017; Dixson, 2021; Hill & Papay, 2022; Lumadi, 2020; Riordan et al., 2019).

Modeling and Active Learning

Incorporating modeling and active learning techniques into professional development sessions holds significant promise for enhancing educators' understanding and skill acquisition. Modeling of effective practice offers educators clear visions of exemplary teaching, providing insights into best practices through observation and analysis. Whether through examining lesson

plans, unit plans, or videos of accomplished teachers, these models serve as valuable references, sparking ideas and inspiration for implementing effective instructional strategies in classrooms.

Professional development that integrates active learning aligns with adult learning theory, recognizing that adults learn best when actively participating, experiencing, and applying new knowledge and skills. Through hands-on activities, educators reinforce their understanding and cultivate essential skills. By actively exploring and practicing new teaching strategies, educators can confidently apply these techniques with their students. This dynamic and interactive approach engages educators as learners and empowers them to translate new knowledge into effective classroom practices (Darling-Hammond et al., 2017; Hill & Papay, 2022; Ladson-Billings, 2021b; Riordan et al., 2019).

Coaching and Expert Support

Professional development programs that integrate coaching and expert support recognize the individualized needs of educators. Coaching serves as a pivotal strategy for enhancing classroom instructional quality and fostering positive student outcomes. Effective collaboration within coaching should revolve around shared and specific goals for improvement. By starting with existing practices and gradually integrating new instructional techniques, coaching supports teachers in their day-to-day practices, promoting continuous growth and improvement. One-on-one coaching, tailored to individual needs, celebrates areas of excellence while addressing areas for growth, ensuring relevance to educators' personal development trajectories. Pairing educators with experienced mentors or instructional coaches enables professional development programs to offer ongoing assistance throughout the implementation process. This personalized approach empowers educators to refine their skills, receive targeted support, and continually enhance their practice to better meet the diverse needs of their students. Collaborative problem-solving and

joint identification of practice challenges make coaching inherently more pertinent to teachers' professional growth journeys. The cyclical nature of coaching established built-in accountability, as educators anticipate ongoing support and follow-up sessions. This accountability fosters greater engagement and commitment to implementing equity-based strategies in the classroom. Coaches play a crucial role in providing constructive feedback, addressing challenges, and co-creating action plans to support educators in effectively integrating culturally responsive teaching practices into their classrooms (Bradshaw et al., 2018; Darling-Hammond et al., 2017; Gladney et al., 2021; Hill & Papay, 2022; Holliday, 2021; Shorb, 2021).

Collaboration and Peer Support

Effective professional development initiatives should actively promote collaboration among educators. Encouraging teachers to come together, whether in one-on-one partnerships or grade-level teams, creates a supportive network for sharing ideas and learning from one another. This collaborative approach allows educators to leverage their collective expertise, leading to improved schoolwide instructional practices. Professional development should prioritize collaborative efforts focused on specific goals, such as adapting curricular materials to meet the needs of students within the school's context. Peer support networks offer valuable opportunities for teachers to receive context-specific feedback and support, enhancing their ongoing professional growth. By embedding collaboration into professional development frameworks, schools can cultivate a culture of continuous improvement and collective learning that benefits both teachers and students alike (Álvarez Valdivia & González Montoto, 2018; Anderson & Fees, 2018; Aronson, 2020; Cormier, 2021; Darling-Hammond et al., 2017; Hill & Papay, 2022; Johnson et al., 2021).

Connection to Andragogy

When designing professional development for adult learners, it is crucial to incorporate the fundamental principles of andragogy (Knowles et al., 2020). Professional learning should emphasize the relevance of culturally responsive teaching by demonstrating its direct impact on addressing real-life challenges both within and beyond the classroom. Educators should understand the importance of integrating culturally responsive practices to effectively meet the diverse needs of their students. Providing concrete examples of how high leverage equitable practices enhance student engagement, learning outcomes, and overall classroom dynamics can motivate educators to fully participate in the learning process.

Recognizing and integrating educators' diverse life experiences into the instructional design of professional development opportunities is crucial. Leveraging educators' existing knowledge and experiences can enhance the relevance of learning. Incorporating opportunities for educators to share their backgrounds and perspectives related to cultural responsiveness fosters a collaborative learning environment and enriches professional development experience. Learning activities should allow educators to explore practical strategies and solutions for creating inclusive and equitable learning environments that honor students' diverse backgrounds and experiences. By nurturing educators' intrinsic motivation to engage with culturally responsive teaching, professional development can effectively empower educators to enact meaningful change in their classrooms (Knowles et al., 2020).

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Appendix A

Culturally Responsive Instruction Observation Protocol
Fourth Revised Edition (January 2017)

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School (use assigned number):_____   Teacher (assigned number): ____

_____

Observer:_____   Date of Observation: _____   # of Students in

Classroom: _____

Academic Subject: _____   Grade Level(s):

_____

Start Time of Observation: _____   End Time of Observation:_____   Total Time of Obs: ___

_____

DIRECTIONS

After the classroom observation, review the field notes for evidence of each "pillar" of Culturally Responsive Instruction. If an example of the following descriptors was observed, place the field notes line number on which that example is found. If a "non-example" of the descriptors was observed, place the line number on which that non-example is found.

Then, make an overall/holistic judgment of the implementation of each component. To what extend and/or effect was the component present?

4 – Consistently
3 – Often
2 – Occasionally
1 – Rarely
0 – Never

Transfer the holistic scores from pp. 2 through 9 to the table below.

CRI Pillar	Holistic Score		CRI Pillar	Holistic Score

I. CLASS		IV. INSTR	
II. FAM		V. DISC	
III. ASMT		VI. CRITICAL	

I. CLASS   CLASSROOM RELATIONSHIPS

Holistic score	4	3	2	1	0
	Consistently	Often	Occasionally	Rarely	Never

CRI Indicator	For example, in a responsive classroom:	For example, in a non-responsive classroom:	Field notes: Time or line(s) of example	Field notes: Time or line(s) of non-example	Field notes: No example (✔)	SCORE for Indicator
1. The teacher demonstrates an ethic of care (e.g., equitable relationships, bonding)	Generally Effective Practices: • Teacher refers to students by name, uses personalized language with students • Teacher conveys interest in students' lives and experiences Practices that are Culturally Responsive: • There is a "family-like" environment in the classroom; there is a sense of belonging; students express care for one another in a variety of ways • Teacher promotes an environment that is safe and anxiety-free for all students, including culturally and linguistically diverse students; students seem comfortable participating in the classroom • Teacher differentiates	• Teacher permits and/or promotes negativity in the classroom, e.g., criticisms, negative comments, sarcasm, etc. • Teacher does not address negative comments of one student towards another • Teacher stays behind desk or across table from students; s/he does not get "on their level" • Teacher does not take interest in students' lives and experiences; is primarily concerned with conveying content • Teacher does not seem aware that some students are marginalized and are not participating fully in classroom activities • Some students do not seem comfortable contributing to class discussions and participating in learning activities • Teacher uses the same management techniques and interactive style with all students when it is clear that they do not work for some				

		patterns of interaction and management techniques to be culturally congruent with the students and families s/he serves (e.g., using a more direct interactive style with students who require it)					
2.	The teacher communicates high expectations for all students	Generally Effective Practices: • There is an emphasis on learning and higher-level thinking; challenging work is the norm • Students do not hesitate to ask questions that further their learning; there is a "culture of learning" in the classroom • Teacher expects every student to participate actively; students are not allowed to be unengaged or off-task • Teacher gives feedback on established high standards and provides students with specific information on how they can meet those standards Practices that are Culturally Responsive: • There are group goals for	• Teacher has low expectations , consistently giving work that is not challenging or frustrating students by giving them tasks that are unreasonably difficult • Teacher does not call on all students consistently • Teacher allows some students to remain unengaged, e.g., never asks them to respond to questions, allows them to sleep, places them in the "corners" of the room and does not bring them into the instructional conversation, etc. • Teacher does not establish high standards; evaluation criteria require lower-level thinking and will not challenge students • Teacher feedback is subjective and is not tied to targeted learning outcomes and standards • Teacher expresses a deficit model, suggesting through words or actions that some students are not as capable as others • Teacher does not					

		success as well as individual goals (e.g., goals and charts posted on walls); every student is expected to achieve • Students are invested in their own and others' learning ; they continuously assist one another • Teacher takes steps to assure that emerging bilinguals understand directions and have access to the same content and learning as native speakers	explicitly assist emerging bilinguals to assure they understand directions and content				
3.	The teacher creates a learning atmosphere that engenders respect for one another and toward diverse populations	Generally Effective Practices: • Teacher sets a tone for respectful classroom interaction and teaches respectful ways for having dialogue and being in community with one another • Teacher implements practices that teach collaboration and respect, e.g., class meetings, modeling and reinforcing effective interaction, etc. • Students interact in respectful ways	• Teacher shows impatience and intolerance for certain student behaviors • Lack of respectful interaction amongst students may be an issue • Teacher establishes a competitive environment whereby students try to out-perform one another • Teacher does not encourage student questions or ridicules students when they ask for clarification • Posters and displays do not show an acknowledgement and affirmation of students' cultural and racial/ethnic/linguistic identities • Classroom library and other available materials promote ethnocentric positions and/or ignore human				

	and know how to work together effectively • Teacher and students work to understand each other's perspectives Practices that are Culturally Responsive: • Positive and affirming messages and images about students' racial and ethnic identities are present throughout the classroom • Teacher affirms students' language and cultural knowledge by integrating it into classroom conversations • Teacher encourages students to share their stories with one another and to have pride in their history and linguistic and cultural identities • Classroom library and other available materials contain multicultural content that reflect the perspectives of and show appreciation for diverse groups • Classroom library (including online	diversity • Classroom resources do not include any bilingual texts • Teacher never affirms students' native languages and cultures				

	resources) includes bilingual texts that incorporate students' native languages						
4. Students work together productively	Generally Effective Practices: • Students are continuously viewed as resources for one another and assist one another in learning new concepts • Students are encouraged to have discussions with peers and to work collaboratively	• Students are discouraged from assisting their peers • Students primarily work individually and are not expected to work collaboratively; and/or students have a difficult time collaborating • Teacher dominates the decision-making and does not allow for student voice • The emphasis is on individual achievement • Classroom is arranged for quiet, solitary work, with the teacher being "center stage"					

II. FAM   FAMILY COLLABORATION

Holistic score	4	3	2	1	0
	Consistently	Often	Occasionally	Rarely	Never

NOTE: When scoring this component of the CRIOP, the family collaboration interview should be used in addition to field observations.
Observations alone will not provide adequate information for scoring.

CRI Indicator	For example, in a responsive classroom:	For example, in a non-responsive classroom:	Field notes: Time or line(s) of example	Field notes: Time or line(s) of non-example	Field notes: No example (✓)	SCORE for Indicator
1. The teacher establishes genuine partnerships (equitable relationships) with parents/ caregivers	Generally Effective Practices: • Parents'/caregivers' ideas are solicited on how best to instruct the child; parents are viewed as partners in educating their child • There is evidence of conversations with parents/caregivers where it's clear that they are viewed as partners in educating the student Practices that are Culturally Responsive: • Teacher makes an effort to understand families and respects their cultural knowledge by making a concerted effort to develop relationships in order to learn about their lives, language, histories, and cultural traditions • Teacher makes an effort to communicate with families in their home languages (e.g.,learning key terms in the student's home language, translating letters, using translation tools involving a family liaison, etc.)	• Parents'/caregivers are never consulted on how best to instruct their child, and/or their suggestions are not incorporated in instruction • No effort made to establish relationships with caregivers • There is evidence of a "deficit perspective" in which families and caregivers are viewed as inferior and/or as having limited resources that can be leveraged for instruction • All communication with families is in English.				

2. The teacher reaches out to meet parents in positive, non-traditional ways	Generally Effective Practices: • Teacher conducts home visit conferences • Teacher makes "good day" phone calls and establishes regular communication with parents Practices that are Culturally Responsive: • Teacher plans parent/family activities at locations within the home community • Teacher meets parents in parking lot or other locations that may be more comfortable for them	• Communication with parents/caregivers is through newsletters or similar group correspondence,, where they are asked to respond passively (e.g., signing the newsletter, versus becoming actively involved in their child's learning) • Teacher conducts phone calls, conferences, personal notes to parents for negative reports only (e.g., discipline)				
3. The teacher encourages parent/family involvement	Generally Effective Practices: • Parents are encouraged to be actively involved in school-related events and activities • Parents/caregivers are invited into the classroom to participate and share experiences Practices that are Culturally Responsive: • Parents from diverse linguistic and cultural backgrounds are invited to share their unique experiences and knowledge (e.g., sharing their stories, reading books in their native language, teaching songs and rhymes in their native language, etc.)	• Parents/caregivers are never involved in the instructional program • There is no evidence of home/family connections in the classroom				

4. The teacher intentionally learns about families' linguistic/cultural knowledge and expertise to support student learning	Practices that are Culturally Responsive: • Teacher identifies families' "funds of knowledge" so it can be used to facilitate student learning (e.g., through home visits; social events for families where information is solicited; conversations with parents and students about their language, culture, and history; attending community events; home literacy projects; camera projects etc.)	• Families' "funds of knowledge" are never identified				

III. ASMT   ASSESSMENT PRACTICES

Holistic score	4	3	2	1	0
	Consistently	Often	Occasionally	Rarely	Never

CRI Indicator	For example, in a responsive classroom:	For example, in a non-responsive classroom:	Field notes: Time or line(s) of example	Field notes: Time or line(s) of non-example	Field notes: No example (✔)	SCORE for Indicator
1. Formative assessment practices are used that provide information throughout the lesson on individual student understanding	Generally Effective Practices: • Teacher frequently assesses students' understanding throughout instruction and uses assessment data throughout the lesson to adjust instruction • Students are able to voice their learning throughout the lesson • Informal assessment strategies are used continuously during instruction, while students are actively engaged in learning, and provide information on the learning of every student (e.g. "talking partners," whiteboards, journal responses to check continuously for understanding) • Teacher modifies instruction or reteaches when it's clear that students are not meeting learning targets	• Assessment occurs at the end of the lesson • Assessment is not embedded throughout instruction • Assessment is regarded as a set of evaluation "tools" that are used to determine what students have learned (e.g., exit slips, quizzes, etc. that are administered after instruction has occurred versus examining students' cognitive processing during instruction) • Teacher follows the lesson script even when it's clear that students are not meeting learning targets • The goal is to get through the lesson and cover the content versus assuring student understanding				

2. Students are able to demonstrate their learning in a variety of ways	Generally Effective Practices • Divergent responses and reasoning are encouraged; students are able to share the processes and evidence they used to arrive at responses versus simply providing "the" correct answer Practices that are Culturally Responsive: • Students with limited English proficiency and/or limited literacy can show their conceptual learning through visual or other forms of representation (e.g., drawing, labelling, completing graphic organizers etc. depending upon their level of English language acquisition)	• Most or all tests are written and require reading/writing proficiency in English • Teacher expects students to tell "the" answer • Students have a narrow range of options for demonstrating competence (e.g., multiple choice tests, matching, etc.)				
3. Authentic assessments are used frequently to determine students' competence in both language and content.	Generally Effective Practices: • Students' written and oral language proficiency is assessed while they are engaged in purposeful activity • Teacher primarily uses authentic, task-embedded assessments (e.g., anecdotal notes, targeted observation, rubrics/analysis of students' written products, math	• Assessments measure discrete, isolated skills and/or use short, disconnected passages • Students' linguistic competence is never assessed, or is evaluated solely through standardized measures • Assessments are "exercises" that students must complete versus meaningful, purposeful work				

	charts/journals, etc.) Practices that are Culturally Responsive: • Teacher assesses both academic language and content					
4. Students have opportunities for self-assessment	Generally Effective Practices: • Students are encouraged to evaluate their own work based upon a determined set of criteria • Students are involved in setting their own goals for learning • Students are involved in developing the criteria for their finished products (e.g., scoring rubrics)	• Assessment is always teacher-controlled				

IV. INSTR   INSTRUCTIONAL PRACTICES

Holistic score	4	3	2	1	0
	Consistently	Often	Occasionally	Rarely	Never

CRI Indicator	For example, in a responsive classroom:	For example, in a non-responsive classroom:	Field notes: Time or line(s) of example	Field notes: Time or line(s) of non-example	Field notes: No example (✔)	SCORE for Indicator
1. Instruction is contextualized in students' lives, experiences, and individual abilities	Generally Effective Practices: • Learning activities are meaningful to students and promote a high level of student engagement • Materials and real-world examples are used that help students make connections to their lives • Learning experiences build on prior student learning and invite students to make connections Practices that are Culturally Responsive: • Teacher uses instructional methods/activities that provide windows into students' worlds outside of school (e.g., "All About Me" books, student-created alphabet walls, camera projects, etc.) • Teacher views students' life experiences as assets and builds on students' cultural knowledge, linguistic	• Learning tasks and texts reflect the values and experiences of dominant ethnic and cultural groups • No attempt is made to link students' realities to what is being studied; learning experiences are disconnected from students' knowledge and experiences • Skills and content are presented in isolation (never in application to authentic contexts) • Teacher follows the script of the adopted curriculum even when it conflicts with her own or the students' lived experiences • Learning experiences are derived almost exclusively from published textbooks and other materials that do not relate to the classroom				

	knowledge, and "cultural data sets," making connections during instruction in the various content areas • Materials and examples are used that reflect diverse experiences and views • Families' "funds of knowledge" are integrated in learning experiences when possible; parents are invited into the classroom to share their knowledge	community or the larger community being served • Families "funds of knowledge" are never incorporated in the curriculum; parents are never invited to share their knowledge				
2. Students engage in active, hands-on, meaningful learning tasks, including inquiry-based learning	• Learning tasks allow students to practice and apply concepts using hands-on activities and manipulatives • Learning activities promote a high level of student engagement • Exploratory learning is encouraged • Teacher engages students in the inquiry process and learns from students' investigations (e.g., inquiry-based and project-based learning) • Students are encouraged to pose questions and find answers to their questions using a variety of resources • Student-generated questions form the basis for further study and investigation	• Students work passively at their seats on teacher-directed tasks • Passive student learning is the norm (e.g., listening to direct instruction and taking notes, reading the textbook, seatwork, worksheets, etc.) • Exploratory learning is discouraged • Teacher is the authority • Students are not encouraged to challenge or question ideas or to engage in further inquiry • Students are not encouraged to pose their own questions • All knowledge/ideas are generated by those in authority (e.g., textbook writers, teachers)				

| 3. The teacher focuses on developing students' academic language | Generally Effective Practices:
• There is an emphasis on learning academic vocabulary in the particular content area
• Students are taught independent strategies for learning new vocabulary
• Key academic vocabulary and language structures are identified prior to a study or investigation
Practices that are Culturally Responsive:
• Teacher develops language objectives in addition to content objectives, having specific goals in mind for students' linguistic performance
• Teacher articulates expectations for language use (e.g "I want you to use these vocabulary words in your discussion; I expect you to reply in a complete sentence" etc.)
• Teacher scaffolds students' language development as needed (sentence frames, sentence starters, etc.)
• Academic language is taught explicitly (identifying it in written passages, dissecting complex sentences, using mentor texts, creating "learning/language walls," etc.) | • Little attention is paid to learning academic vocabulary in the content area
• New words are taught outside of meaningful contexts
• Students are not taught independent word learning strategies
• Teacher does not articulate expectations for language use
• The teacher does not establish language objectives for students; only content objectives are evident
• Teacher does not scaffold students' language development
• No attention is given to the language used in particular disciplines; academic language is not addressed
• Students are evaluated on their use of academic discourse but it is never taught explicitly | | | | |

4. The teacher uses instructional techniques that scaffold student learning	• Teacher uses a variety of teaching strategies to assist students in learning content (e.g., demonstrations, visuals, graphic organizers, reducing linguistic density, etc.) • Teacher models, explains and demonstrates skills and concepts and provides appropriate scaffolding • Teacher uses "comprehensible input" (e.g., gestures, familiar words and phrases, slower speech, etc.) to facilitate understanding when needed • Teacher builds on students' knowledge of their home languages to teach English (e.g., cognates, letter-sound relationships, syntactic patterns)	• Teacher primarily uses traditional methods for teaching content (e.g., lecture, reading from a textbook) with few scaffolding strategies • Teacher does not always model, explain and demonstrate new skills and concepts prior to asking students to apply them • Teacher does not use visuals, comprehensible input etc. to facilitate understanding • Teacher does not build upon students' home languages to teach terms, skills and concepts in English				
5. Students have choices based upon their experiences, interests and strengths	• Students have multiple opportunities to choose texts, writing topics, and modes of expression based on preferences and personal relevance • Students have some choice in assignments • Students have some choice and ownership in what they are learning	• Teacher selects texts, writing topics, and modes of expression for students • All assignments are teacher-initiated • Students have no choice or ownership in topic of study or questions that will be addressed				

V. DIS   DISCOURSE   Holistic score

4	3	2	1	0

Consistently   Often   Occasionally   Rarely   Never

CRI Indicator	For example, in a responsive classroom:	For example, in a non-responsive classroom:	Field notes: Time or line(s) of example	Field notes: Time or line(s) of non-example	Field notes: No example (✓)	SCORE for Indicator
1. The teacher promotes active student engagement through discourse practices	• Teacher employs a variety of discourse protocols to promote student participation and engagement (e.g., call and response, talking circles, read-around, musical shares, etc.) • All students have the opportunity to participate in classroom discourse • Teacher uses various strategies throughout the lesson to promote student engagement through talk (e.g., partner share, small group conversation, interactive journals, etc.)	• The main form of classroom discourse is Initiate-Respond-Evaluate (IRE) where the teacher poses a question and individual students respond • The teacher controls classroom discourse by assigning speaking rights to students • Not all students have the opportunity to participate in classroom discussions • Some students are allowed to dominate discussions				
2. The teacher promotes equitable and culturally sustaining discourse practices	Generally Effective Practices: • Students use collaborative, overlapping conversation and participate actively, supporting the speaker during the creation of story talk or discussion and commenting upon the ideas of others • Teacher uses techniques to support equitable participation, such as wait time, feedback, turn-taking, and scaffolding of ideas Practices that are	• Discourse practices of various cultural groups are not used during instruction • Students are discouraged from using their home language or dialect and communicating in culturally specific ways, even when it is situationally appropriate to do so • Emerging bilingual students are discouraged from using their native language, both inside and outside of school • Students are discouraged from				

		Culturally Responsive: • Students speak in their home language/dialect when it is situationally appropriate to do so • There is an emphasis on developing proficiency in students' native language as well as in Standard English; bilingualism/ multilingualism is encouraged (e.g., students learn vocabulary in their native languages; students read/write in their native languages; students learn songs and rhymes in other languages, etc.)	communicating in a language other than English • There is no evidence of attempts to promote bilingualism/multilingu alism				
3.	The teacher provides structures that promote academic conversati on	Generally Effective Practices: • Students engage in genuine discussions and have extended conversations • Teacher explicitly teaches and evaluates skills required for conducting effective academic conversations Practices that are Culturally Responsive: • Teacher provides prompts that elicit extended conversations and dialogue (e.g. questions on current issues; questions that would elicit differing points of view)	• Students are discouraged from talking together, or conversations are limited to short responses • Teacher rarely asks questions or provides prompts that would elicit extended dialogue • Teacher does not teach skills required for academic conversations				

| 4. The teacher provides opportunities for students to develop linguistic competence | Generally Effective Practices:
• Teacher provides many opportunities for students to use academic language in meaningful contexts
• Students are engaged in frequent and authentic uses of language and content (drama, role play, discussion, purposeful writing and communication using ideas/concepts/vocabulary and syntactic structures from the field of study)
Practices that are Culturally Responsive:
• Students are taught appropriate registers of language use for a variety of social contexts and are given opportunities to practice those registers in authentic ways | • Students' use of language is limited and they do not use language in authentic ways
• Students are not taught about the registers of language use; they are expected to use Standard English in all social contexts | | | | |

VI. CRITICAL CRITICAL CONSCIOUSNESS

| Holistic score | 4 | 3 | 2 | 1 | 0 |

Consistently   Often   Occasionally   Rarely   Never

CRI Indicator	For example, in a responsive classroom:	For example, in a non-responsive classroom:	Field notes: Time or line(s) of example	Field notes: Time or line(s) of non-example	Field notes: No example (✓)	SCORE for Indicator
1. The curriculum and planned learning experiences provide opportunities for the inclusion of issues important to the classroom, school and community	Generally Effective Practices: • Students are engaged in experiences that develop awareness and provide opportunities to contribute, inform, persuade and have a voice in the classroom, school and beyond • Community-based issues and projects are included in the planned program and new skills and concepts are linked to real-world problems and events Practices that are Culturally Responsive: • Students explore important contemporary issues (poverty, racism, global warming, human trafficking, animal cruelty, etc.) • Teacher encourages students to investigate real-world issues related to a topic being studied and to become	• The focus of literacy and content instruction is to teach the skills and information required to "pass the test"; learning occurs only as it relates to the standard curriculum • Teacher does not encourage critical thought or questioning of contemporary issues • Teacher does not encourage application to real-world issues; accepts or endorses the status quo by ignoring or dismissing real life problems related to the topic being studied				

	actively involved in solving problems at the local, state, national, and global levels					
2. The curriculum and planned learning experiences incorporate opportunities to confront negative stereotypes and biases	Practices that are Culturally Responsive: • Teacher facilitates students' understanding of stereotypes and biases • Teacher encourages students to examine biases in popular culture that students encounter in their daily lives (TV shows, advertising, popular songs, etc.) • Teacher makes intentional use of multicultural literature to facilitate conversations about human differences • As appropriate to the grade level being taught, teacher helps students to think about biases in texts (e.g., "Who has the power in this book? Whose perspectives are represented, and whose are missing? Who benefits from the beliefs and practices represented in this text?" etc.) • As appropriate to the grade level being taught, teacher challenges	• Teacher does not encourage students to examine biases in instructional materials or popular texts; texts are considered to be "neutral" • Teacher never addresses issues related to human differences • Teacher makes prejudicial statements to students (e.g., girls are emotional; immigrants don't belong here; etc.), and/or fails to challenge prejudicial statements of students				

	students to deconstruct their own cultural assumptions and biases both in the formal and informal curriculum					
3. The curriculum and planned learning experiences integrate and provide opportunities for the expression of diverse perspectives	Generally Effective Practices: • Students are encouraged to challenge the ideas in a text and to think at high levels Practices that are Culturally Responsive: • Texts include protagonists from diverse backgrounds and present ideas from multiple perspectives • Students are encouraged to explore alternative viewpoints • Opportunities are plentiful for students to present diverse perspectives through class discussions and other activities • Students are encouraged to respectfully disagree with one another and to provide evidence to support their views	• The conventional, dominant point of view is presented and remains unchallenged • Few texts are available to represent diverse protagonists or multiple perspectives • Biased units of study are presented that show only the conventional point of view (e.g., Columbus discovered America) or that ignore other perspectives (e.g., a weather unit that does not include a discussion of global warming) • No or very few texts are available with protagonists from diverse cultural, linguistic, and/or socioeconomic backgrounds • No opportunities are provided for students to learn about or to present diverse views				

Appendix B

Interview Validation Protocol

Each respondent of the ten person review panel of experts analyzed each question in relation to the research question and scored the interview question as:

1 = not relevant

2 = somewhat relevant

3 = relevant

4 = very relevant

Question	Respondents												Average	I-CVI
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**		
Q1.	4	4	4	4	4	4	4	4	4	4	4	3	3.92	1
Q2.	4	4	4	4	4	4	4	4	4	4	4	4	4.00	1
Q3.	4	4	4	4	4	4	4	4	4	4	4	4	4.00	1
Q4.	4	4	4	4	4	4	4	4	4	3	4	4	3.92	1
Q5.	4	3	4	3	4	4	4	4	4	3	4	3	3.67	1

Q1. What components or strategies of the new teacher induction series have you found most influential in shaping your instructional practices?

Q2. Please provide examples of how these components have influenced your teaching methods.

Q3. Please describe any specific elements or activities from your recent professional development experiences that have positively influenced your ability to implement culturally responsive practices in your classroom.

Q4. Please share any challenges you have encountered while attempting to integrate culturally responsive practices in your classroom.

Q5.Were there any specific aspects of your professional development that helped you navigate these situations? If so, please share examples.

Appendix C

Qualitative Interview Questions

1. What professional development components or strategies of the Cultivating Equitable

Educators (CEE) series have you found most influential in shaping your instructional practices?

2. Please provide examples of how these components or strategies have influenced your teaching

methods.

3. Please describe any professional learning experiences that have impacted your ability to

implement culturally responsive practices in your classroom.

4. Please share any challenges you have encountered while attempting to integrate culturally

responsive practices in your classroom.

5. Were there specific elements or activities of the Cultivating Equitable Educators series that

helped you navigate these challenging situations? If so, please share examples.

Appendix D

February 23, 2023

Northwest Nazarene University
Attention: IRB Committee
Helstrom Business Center 1st Floor
623 S. University Boulevard
Nampa, ID 83686

RE: Research Proposal Site Access for Mrs. Abigail Chandler

Dear IRB Members:

This letter is to inform the IRB that the Administration of the ▮▮▮▮ School District has reviewed the proposed dissertation research plan including subjects, assessment procedures, proposed data and collection procedures, data analysis, and purpose of the study. Mrs. Chandler has permission to conduct her research study with the ▮▮▮▮ School District staff as outlined in the district's Institutional Review Board's guidelines and expectations. The authorization dates for this research study are July 2023- March 2024.

Respectfully,

Executive Director of Equity, Student Success, and Strategic Engagement

Appendix E

INFORMED CONSENT FORM

PURPOSE AND BACKGROUND

You are invited to participate in a research project designed to evaluate the most effective components of an equity and diversity training series (Cultivating Equitable Educators) for new educators that impact culturally responsive teaching in the classroom. This research is being conducted by Abigail Chandler, a Ph.D. candidate in the Department of Graduate Education at Northwest Nazarene University.

Participation is voluntary and responses will be kept confidential and any identifying information will be withheld.

PROCEDURES
If you agree to be in the study, the following will occur:

1. You will be asked to sign this Informed Consent Form, volunteering to participate in the study.

2. Your district instructional coach will share observational notes from two classroom visits, one in September 2023 and another in December 2023. These notes will not contain any personally identifiable information and will not be shared with your evaluator.

3. You may be asked to complete a short one-on-one follow-up interview through a Microsoft Teams call, in December 2023. This survey should take less than 15 minutes and will include three open-ended prompts about your experience with the Cultivating Equitable Educators induction series.

RISKS/DISCOMFORTS
1. Some of the questions may make you uncomfortable, you are free to decline to answer any questions you do not wish to answer or to stop participation at any time.

2. For this research project, the initial survey will request demographic information. The researcher will make every effort to protect your confidentiality. However, if you are uncomfortable answering any of these questions, you may leave them blank.

3. Confidentiality: No individual identities will be used in any reports or publications that may result from this study.

4. Only the primary researcher and the research supervisor will be privy to data from this study. As researchers, both parties are bound to keep data as secure and confidential as possible.

BENEFITS. There will be no direct benefit to you from participating in this study. However, the information you provide may help to better inform the designers of diversity training opportunities to understand the factors that positively impact professional practice and the implementation of culturally responsive teaching to create more equitable classrooms.

QUESTIONS. If you have any questions or concerns about the study, please contact the principal investigator, Abigail Chandler, via email at <u>abigailchandler@nnu.edu</u> via telephone at xxx-xxx-xxxx. If for some reason you do not wish to do this, you may contact the faculty advisor, Dr. Lisa Amundson at <u>lamundson@nnu.edu</u>. If you have any questions regarding your rights as a research subject, contact the NNU Institutional Review Board at IRB@nnu.edu.

CONSENT. You will be given a copy of this consent form to keep.

PARTICIPATION IN RESEARCH IS VOLUNTARY. You are free to decline to be in this study or to withdraw from it at any point.

I give my consent to participate in this study:

_____   _____

Signature of Study Participant   **Date**

If selected for follow-up interview participants only, please include your self-selected 4-digit identifier:

I give my consent for the interview to be recorded:

_____   _____

Signature of Study Participant   **Date**

I give my consent for direct quotes to be used in this study:

_____   _____

Signature of Study Participant   **Date**

_____   _____

Signature of Person Obtaining Consent   **Date**

THE NORTHWEST NAZARENE UNIVERSITY INSTITUTIONAL REVIEW BOARD HAS REVIEWED THIS PROJECT FOR THE PROTECTION OF HUMAN PARTICIPANTS IN RESEARCH.

Appendix F

ACRP Certification

Appendix G

Northwest Nazarene University's Institutional Review Board Approval

Dear Abigail,

The IRB has reviewed your protocol: 0340. You received "Full Approval". Congratulations, you may begin your research as soon as your dissertation proposal defense is completed. If you have any questions, let me know.

Northwest Nazarene University

Heidi Curtis

IRB Member

623 S University Blvd

Nampa, ID 83686

Appendix H

Member Checking Email

Date:

Dear [Participant Name]

Thank you for participating in my study, "Examining the Impact of Diversity Training for Equitable Classrooms." Five primary common themes were evident from the one-on-one interviews. After reading and coding transcripts, results show that the most impactful professional development components include:

1. Feedback and Reflection
2. Content-Focused Instruction (High Leverage Teaching Practices)
3. Modeling and Active Learning
4. Coaching and Expert Support
5. Collaboration and Peer Support

Please review these themes and let me know if they accurately reflect your experience as a participant in the Creating Equitable Educators series.

If you have any suggestions for modifications or questions, please let me know.

Thank you again for your support with this dissertation study.

Abigail Chandler

Doctoral Student

Northwest Nazarene University