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A Design Thinking Mixed Methods Study on Learned Empathy

Through Multicultural Education

by

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Problem of Practice

Research submitted to the Education Faculty

Lindenwood University, College of Education and Human Services

In partial fulfillment of the requirements for the degree of

Doctor of Education, Leadership EdD

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work at Lindenwood University and that I have not submitted it for any other college or university course or degree.

Full Legal Name: Samantha Marie Webb

Signature: __*Samantha Marie Webb*_____ Date: _03/23/2024__

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Executive Summary

The dissertation in practice focused on addressing the issue of inadequate diversity, equity, and inclusion (DEI) competencies among teachers in a Title I school. The problem of practice emerged within the context of an increasingly diverse educational landscape, necessitating educators to possess robust DEI skills. The proposed solution was a professional development (PD) program, crafted using a design thinking approach, which included an asynchronous learning module supplemented by a book study. The comprehensive PD program was aimed at enhancing the teachers' understanding and application of DEI principles, making the prototype relevant to the demands of multicultural education in today's diverse classrooms. Quantitative analysis, employing bootstrap paired sample t-tests, demonstrated significant improvements in the DEI competencies among the participating teachers. Qualitative data, gleaned from reflective journal entries and feedback from the book study, provided deeper insights into how the DEI concepts were applied in educational settings. Teachers reported an increased readiness to teach in multicultural classrooms and a more positive attitude towards professional development in diversity and multicultural education. The findings were consistent with literature underscoring the importance of targeted professional development in enhancing teachers' preparedness and attitudes towards diversity. The intervention's design and outcomes were closely aligned with one or more domains in the Leadership, Ed.D. conceptual framework, particularly in fostering organizational change. The intervention exemplified transformational leadership by inspiring and motivating staff, creating an innovative and creative environment, and clearly communicating the vision for change. The researcher's study underscored the importance of well-crafted

professional development programs in elevating educators' competencies, contributing to

organizational change, and fostering more inclusive and equitable learning environments.

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multicultural education and the scope within science and education were necessary before

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Chapter One: Introduction

The increasing diversity of student populations in educational organizations across the globe led to an increase in recognition of the importance of creating inclusive and equitable learning environments (Organization for Economic Co-operation and Development [OECD], 2019). To achieve the outcome, essential components needed to be in place to provide educators with the knowledge, resources, and skills to address the diverse needs of students. Diversity, equity, and inclusion (DEI) professional development for educators was critical in enabling teachers and administrators to understand better and respond to the unique challenges and opportunities associated with diverse student populations (Gay, 2018).

Multicultural education emerged as a response to the need for more diverse, equitable, and inclusive educational systems designed to embrace, acknowledge, and celebrate the diverse makeup of all students. In today's increasingly interconnected and globalized world, the importance of education is more significant than ever (Cerna et al., 2021). Challenges associated with the continued globalization of society amplified the need for multicultural education. Banks (1993) defined multicultural education in five dimensions: diverse content integration, developing students' awareness of the knowledge construction process, prejudice reduction, equity pedagogy, and empowering school culture and social structure. Together, the components provided equitable learning opportunities, prepared students for a multicultural society, and challenged discrimination by building awareness of social justice conflicts (Casto, 2019).

Position of the Problem within Practice

The scholar practitioner aimed to improve educator knowledge regarding diversity, equity, and inclusionary (DEI) practices to best support learned empathy in students in an increasingly diverse community. Based on the empathy data collected, the scholar-practitioner defined the problem of practice as a lack of knowledge of multicultural education among the research site's staff. Increasing the staff's knowledge of multicultural education at the research site would be a valuable contribution to the education profession and possibly lead to higher levels of empathy in the student population.

Diversity professional development for educators held a significant position within the teaching practice and increased the ability of teachers and administrators to create inclusive, equitable, and culturally responsive learning environments for all students. Additionally, diversity professional development equipped educators with the knowledge, skills, and understanding necessary to address students' diverse cultural backgrounds, identities, and perspectives (Gay, 2018). Enhancing cultural competency allowed teachers to create inclusive learning environments and affirmed the unique experiences of all students (Gay, 2018). Building on Gay's work, Ladson-Billings (2009) emphasized the importance of culturally relevant pedagogy, which acknowledged the importance of incorporating students' cultural references in all aspects of learning and challenged teachers to engage in practices which addressed social disparities and empowered students.

Furthermore, DEI development fostered a commitment to social justice and equity, encouraging educators to critically examine personal biases and assumptions, and

the systemic barriers contributed to educational disparities. Teachers developed more

inclusive and equitable teaching practices through professional development, challenging

discrimination, and promoting equal student opportunities (Nieto & Bode, 2018). As a

critical component of DEI professional development, culturally responsive pedagogy

emphasized connecting academic content to students' cultural backgrounds and

experiences. Educators enhanced student engagement, motivation, empathy aptitude, and

achievement by implementing culturally responsive teaching strategies, particularly

among marginalized and underrepresented student populations (Ladson-Billings, 1995).

 The researcher aimed to add to the growing literature on diverse professional

development for educators by creating valuable resources meaningful to the research

site's teachers through the design thinking process. Furthermore, the researcher

endeavored to provide educators with tools and acquired strategies for applying DEI

teaching practices to facilitate student growth in empathetic understanding. The design

thinking model was not meant to remedy the challenges encountered at the research site

temporarily; the researcher's objective was to ensure collaborators at the research site

adopted the design thinking process as a method for ongoing enhancement and expansion

of resources considered beneficial to the school and the community. Through engagement

in continuous professional development and the utilization of the design thinking process,

educators had the opportunity to refine teaching practices, adapt to the changing needs of

students, and remain current on the latest research and best practices in the field (Sue &

Sue, 2016).

 In summary, DEI professional development was central to the teaching practice,

as related to changing educators' abilities to create inclusive, equitable, and culturally

responsive learning environments. The scholar practitioner believed by enhancing cultural competence, promoting social justice, implementing culturally responsive pedagogy, improving communication, and facilitating ongoing reflection and growth, DEI professional development empowered educators to address the diverse needs of students and promote educational success for all learners.

Framework Surrounding the Problem

The study occurred in a Midwest County, Missouri, along Interstate 70 between two suburbs of St. Louis, Missouri. According to U.S. Census data, the researched County's demographics became increasingly diverse as Black and Hispanic populations left the researched city and County for the western suburbs (Kirn, 2021). Across the St. Louis region, the Hispanic population increased by 12,154 people in St. Louis County and more than 6,000 people in St. Charles County in the past decade (Kirn, 2021, para. 2). Similarly, St. Charles County also experienced an increase in Black population by an additional 8,841 people (Kirn, 2021, para. 7). The Indian and Asian populations also increased to 2.3% and 3.7%, respectively (Kirn, 2021, para. 3). Complementing the local perspective, a study by the Brookings Institution found a significant population shift from major metropolitan areas to suburban regions during the pandemic, reflecting broader demographic trends observed across the United States (as cited in Frey, 2022).

Table 1

Saint Peter's Population by Tract and Block

	White	**Black**	**Hispanic**	**Asian**	**Mixed**	**Other**
311311 Tract						
Block 1	77.05%	9.69%	5.86%	1.45%	5.96%	0.0%
Block 2	88.33%	0.0%	7.82%	2.18%	0.0%	1.93%
Block 3	89.31%	4.24%	1.02%	5.43%	0.0%	0.0%
311391 Tract						
Block 1	81.20%	5.21%	9.64%	0.0%	3.28%	0.68%
Block 2	85.41%	1.26%	9.45%	0.0%	3.88%	0.0%
Block 3	86.27%	4.64%	2.02%	0.41%	6.25%	0.41%
311331 Tract						
Block 1	92.3%	0.67%	0.0%	1.5%	5.00%	0.0%
Block 2	90.11%	0.0%	5.86%	0.0%	4.03%	0.0%
Block 3	86.64%	8.45%	2.45%	0.85%	0.99%	0.61%

The U.S. Census Bureau reported 79 neighborhoods in the researched county (Statistical Atlas, 2021, para. 1), with three of the four in the researched tracts or suburbs within the attendance boundaries of the researched school district and three neighborhoods divided into three blocks (see Table 1). The term tract is used to identify boundaries within a geographical region where census data are recorded (U.S. Census Bureau, 2023). The population data further emphasized to the researcher the need for increased multicultural education in the school setting. As the population continued to

increase in diversity, so did the increased need for empathy and understanding of humanity differ from one's beliefs.

Within the county, issues surrounding the inclusion of Critical Race Theory (CRT) in educational settings had sparked considerable debate, particularly within a surrounding district bordering the research site's district (Associated Press, 2023). The controversy peaked when the all-White board, supported by the conservative political action committee (PAC) of families in the district, voted to remove elective Black history and literature courses (McNeil, 2023). The decision was influenced by the PAC's criticism of the courses, which the PAC falsely claimed included the teaching of CRT, despite CRT not being taught in K-12 schools. The school board's actions extended beyond curriculum changes too. In July, the school board revoked an anti-racism resolution the district adopted in the wake of George Floyd's murder in 2020 (Salter, 2023). The resolution had pledged to speak against racism, discrimination, and violence, regardless of race, ethnicity, nationality, or other identities. The revocation of the pledge was seen by many, including the district's residing county's NAACP President, as a precedent for further controversial decisions (McNeil, 2023).

The series of decisions made by the mid-western school district's school board reflected a broader national trend where conservative lawmakers and groups opposed the teaching of Black History, literature, and CRT (Salter, 2023). Such moves sparked debates about the importance of teaching comprehensive American History, including the roles and experiences of Black Americans. Despite polls indicating a strong public support for education on the history of racism and slavery in the United States, educational policies became increasingly contentious (McNeil, 2023).

Research Site's Panorama Data

The researched school district's administration conducted a survey during the 2021-2022 school year using the Panorama Education platform. The Panorama survey (2021) was sent to students, families, and staff in the fall and spring to understand how the district and individual schools met students' social and emotional needs, and maintained school climate and overall school satisfaction. Survey questions included nine categories: self-management, school safety, sense of belonging, teacher-student relationships, social awareness, growth mindset, self-efficacy, classroom effort, and self-awareness (Panorama, 2021). The researched district tracked trends across the surveyed categories and shared the results with parents, students, and staff. Panorama results were comparable to other schools nationwide.

In the category of social awareness, students rated the ability to consider other points of view, the ability to get along with students different from oneself, and the level of consideration invested in others' feelings (see Table 2).

Table 2

Panorama Results: Social Awareness

Question	Favorable Responses	
	Grades 3-5	Grades 6-12
How carefully did you listen to other's points of views?	82%	43%
When others disagreed with you, how respectful to their views were you?	77%	14%
How well do you get along with students who are different from you?	77%	14%

The research results compilation of data between different age groups, teachers, and families on social awareness revealed a 27% approval rating in students' ability to be socially aware (Panorama, 2021, p. 2). Compared to the national data collected by Panorama, the researched school district placed in the 10th percentile, indicating a severe lack of social tolerance for differing attitudes and beliefs across the district (Panorama, 2021).

Table 3

Panorama Results: School Safety

Question	Favorable Responses	
	Grades 3-5	Grades 6-12
How often are people disrespectful to others at school?	34%	14%
How often do you worry about violence at your school?	64%	43%

Questions focused on school safety resulted in 45% of students in the district responding favorably to questions about the treatment of others and violence at school (Panorama, 2021, p. 3). Once again, the researched school district was rated nationally in the 10th percentile, according to Panorama (2021, p. 4).

As Bommel et al. (2020) discussed, developing empathy for others is a crucial trait needed for positive interactions across different groups of people, especially when interacting with minority groups. Individuals with heightened empathy demonstrated positive attitudes toward minority groups (Bommel et al., 2020). The data presented in Tables 1 and 2 show a progression of favorable responses lessening as students increased in age. With no formal education on multicultural differences in the researched school

district, the scholar-practitioner believed empathy development could have been delayed in children throughout adolescence. Students needed the skill of empathy to maintain adequate social awareness as the Black and Hispanic populations continued to increase in the school district (Neary, 2022).

For the design-based mixed methods research study the scholar practitioner in consultation with the Scholar Cohort Lead/Advisor and Leadership, EdD faculty designed the following research questions and hypothesis statements:

Null Hypothesis 1: There is no difference in the diversity, equity, and inclusion competencies among the educators pre/post professional development.

Research Question 1: How do teachers in a Title I school apply the concepts learned in professional development programs?

Research Question 2: How do teachers describe a level of preparedness to teach in multicultural classrooms pre/post the professional development programs?

Research Question 3: How do teachers perceive professional development in diversity and multicultural education?

Definition of Terms

 The researcher identified the following terms as fundamental to understanding the problem of practice.

Diversity Equity and Inclusion (DEI): The presence of different and multiple characteristics including individual and collective identifies, race, gender, age, religion, sexual orientation, ethnicity, national origin, socioeconomic status, language, and physical ability (Nakintu, 2021).

Empathy: An individual's ability to take on another's perspective and see things from another point of view, resulting in understanding how someone feels (Bommel et al., 2020).

Equity: The process of identifying and removing barriers creating disparities in the access to resources and means, and the achievement of fair treatment and equal opportunities (Nakintu, 2021).

High Quality Professional Development: Emphasizes deep content focus, active learning, coherence with school goals, sufficient duration, collective participation, and a results-driven approach. Professional development ensures teachers not only enhance teaching skills but also improves student outcomes (Guskey, 2002).

Inclusion: Creating environments in which any individual or group can be and feel welcomed, respected, supported, and valued to participate fully (Nakintu, 2021).

Multicultural education (MC): An approach to teaching and learning which embraces and integrates diverse cultural perspectives, experiences, and histories, aiming to promote equity, social justices, and the eradication of discrimination in educational settings. MC seeks to empower students from all backgrounds and equip students with the skills and understanding to navigate the world (Banks, 1992).

Panorama Survey: A set of survey scales, or groups of questions, to measure perceptions in the school community from students, staff, and families of the school climate, as well as individual and organizational strengths and weaknesses (Panorama Education, 2023).

Limitations

In exploring the effect of diversity and inclusion initiatives within educational frameworks, this study was conducted to assess the understanding and perceptions of these efforts among various stakeholders in a specific school district. The scholar practitioner aimed to gauge the awareness and attitudes of participants towards the district's Diversity and. Inclusion Committee's initiatives, focusing on how these perceptions were shaped by past experiences and knowledge of diversity, equity, and inclusion practices. Through a combination of surveys and focus groups, the study sought to uncover the depth of understanding and engagement with DEI practices among educators and administrators. The findings highlight several limitations which may have influenced the participants' responses and provided insights into the challenges of implementing and communicating DEI practices in educational settings.

Participants' knowledge and understanding of current diversity initiatives organized by the district's Diversity and Inclusion Committee was limited. Depending on past participation in diversity awareness training, the participant's perception may not have accurately reflected a proper understanding of the school or district's approach to diversity and inclusion practices. The personal attitudes of the participants who responded to the survey questions on diversity practices may have altered the results. Additionally, respondents may have experienced difficulty responding to the survey questions due to a limited knowledge base on DEI practices. The researcher may have preconceived notions regarding DEI practices within the district's professional development plan while the interpretation of open-ended questions could have been biased when analyzing participants' responses. Also, the researcher may have

inadvertently introduced cultural biases in the study's design, implementation, or interpretation, which could have altered the results.

Furthermore, survey participants may have interpreted the survey questions differently than intended. Social desirability bias may have also influenced responses and might have led to inaccuracies in the data collected (Qualtrics, 2023). Finally, every effort was made to establish fair and non-biased atmospheres during the focus group sessions. However, stakeholders participating in the focus group sessions may not have answered as openly and honestly as desired. In one focus group session, a participant noted a concern as to who would be privy to the identities and responses of the participants. When anonymity was established for the study, the participants felt more at ease to be vulnerable and honest in the responses. Ensuring participants' privacy and confidentiality and addressing any potential harm or discomfort experienced during the study could have been perceived as challenging when exploring sensitive topics related to DEI practices.

Summary

The scholar practitioner outlined the background of the problem, described the problem statement, provided the context with which the problem occurred, defined terms, and assessed the study's limitations. An area for improvement was defined upon examining the professional development of educators within the district and the understanding of DEI practices using the Panorama Survey (Panorama Education, 2023). As globalization continued to create culturally diverse communities, ongoing professional development in DEI practices became essential for educators. Gathering and analyzing stakeholders' perceptions, past professional development, and identified needs were

determined by the researcher to be critical when designing a prototype to address

stakeholder needs. Chapter Two included a review of the literature to expand upon the

knowledge base of multicultural education and high quality professional development

practices (Guskey, 2002) on student learning and empathy development. A thorough

understanding of multicultural education and the scope within science and education

were necessary before reflecting on and developing evaluative instruments for the study.

Chapter Two: Literature Review

After an extensive review of published literature, the scholar-practitioner found limited research within the expected five-year time frame, indicating space in the academic community for the researcher's study. The literature review included an overview of common themes related to multicultural education, including biological predispositions, the history of multicultural education in the United States, current educator competencies of instruction on multicultural issues, learning trends across students of color, and curriculum implications. The scholar-practitioner found the need to include older resources to offer a historical context and foundational perspective, supporting an understanding of how multicultural education evolved. The resources traced pivotal theories, debates, and pedagogical changes, providing a comprehensive field view. The resources also critically examined contemporary practices against past philosophies, highlighting progress and ongoing challenges in multicultural education. The approach provided a well-rounded analysis and acknowledged the contributions of seminal works in shaping current educational discourse and practice.

Multicultural Education

In the past decade, educators, and social justice advocates intensified the focus on race and diversity in schools. The movement sought to address how diversity was embraced and openly discussed, focusing on the challenges faced by students and adults, and accurately representing historical events. Such efforts aligned with promoting equity and equality in educational environments, an essential aspect of multicultural education reform (Banks & Banks, 2010). However, the progression towards the goals often encountered obstacles in the form of educational policies, standardized testing practices,

the cultural competencies of educators, and the content of children's literature, which sometimes inadvertently perpetuated inequities (Au, 2012).

Multicultural education was a reform movement based on developing ideas and processes (Banks, 1992) and aimed to create equal educational opportunities for all students, regardless of a student's racial, ethnic, or social class group (Banks & Banks, 2010). School environments needed to change to reflect the diverse cultures and groups served (Banks & McGee Banks, 2004). Multicultural education was an active process on behalf of teachers and administrators who continued the work toward achieving equal educational opportunities (Darling-Hammond, 2007).

The statement from *A Nation at Risk* began, "All, regardless of race or class or economic status, are entitled to a fair chance and the tools for developing their powers of mind and spirit to the utmost" (National Commission on Excellence in Education, 1983, p. 6) and encapsulated a significant shift in the educational landscape of the United States, emphasizing the fundamental right of all individuals to quality education. This report, published in 1983, served as a wake-up call about the state of American education, emphasizing the urgent need for comprehensive reform to address the deficiencies in the education system. Reform efforts in the 1990s focused on the decentralization of controls in education. However, the results of decentralization varied when studying urban communities, like Chicago elementary schools. While some schools improved under local control, many did not. Bryk and Schneider (2002) found a critical factor leading to the success of decentralization connected to relational trust between schools and the families and communities the schools served. The education system encompassed three scales: the micro-scale focused on individual experiences, the meso-

scale involving school contexts, and the macro-scale related to state and national policies (DetEdIn, 2020). The DetEdIn (Determinants of Educational Inequalities) study by University College London illustrated the scaled framework, examining how psychological traits (micro), family and school characteristics (meso), and educational policies (macro) influenced educational inequalities. The scaled approach underscored the complexity of factors at different levels in shaping educational outcomes and the interdependence of the scales in the educational system (DetEdIn, 2020).

The challenges associated with racism in the education system and the continued globalization of society amplified the need for multicultural education. Banks (1993) posited the existence of five dimensions which defined multicultural education: diverse content integration, developing students' awareness of the knowledge construction process, prejudice reduction, equity pedagogy, and empowering school culture and social structure. Together, the components provided equitable learning opportunities, prepared students for a multicultural society, and challenged discrimination by building awareness of social justice conflicts (Casto, 2019).

Content Integration

Content integration in multicultural education involved incorporating diverse cultural content into classrooms. The Contributions Approach allowed teachers to highlight heroic figures from minority groups, potentially isolating the groups from mainstream history (Stanley, 2000). In addition to content integration, the knowledge construction process described how teachers helped students navigate biases and how knowledge was constructed within biases (Banks, 1993). When the approach was used, teachers selected isolated facts about a person or group of people who maintained a

"heroic" status. A prime example of the Contributions Approach was how educators approached lessons on minorities, such as Martin Luther King, Jr., or Indigenous People Day (Stanley, 2000). However, the approach was problematic in supporting content integration because the concept reinforced the idea ethnic minorities were not part of mainstream U.S. history, but treated as secondary or separate (Petrovic & Caddell, 2020),

Another popular approach to engaging students with content on diverse topics was the Additive Approach (Azzahrawi, 2022). The Additive Approach was also frequently used by educators to integrate content about ethnic and cultural groups into the school curriculum (Banks & Banks, 2010). Individuals who applied the approach introduced specific units on ethnic or cultural groups added to the curriculum as secondary units to the central unit. An example would be a lesson on the internment of Japanese Americans during a unit on World War II (Azzahrawi, 2022). The method was often critiqued for perpetuating a dominant cultural narrative, positioned ethnic and cultural topics as supplementary, thus keeping minority perspectives marginalized (Stanley, 2000). While the method introduced diversity, the Additive Approach was a preliminary step toward more profound education reform. The Additive Approach did not fundamentally challenge existing biases or Eurocentric views within the curriculum. Critics, such as Gorski (2017) and Yosso (2005) argued proper multicultural education required a more profound transformation, including diverse voices and actively challenging entrenched power structures in education. Nieto and Bode (2018) further emphasized the need for an anti-racist and inclusive curriculum, which added diverse content and reshaped the way history and culture were taught and understood.

Finally, a third approach, the Transformation Approach, saw a curriculum's fundamental goals, structure, and perspectives altered to engage students with culturally diverse topics from various ethical perspectives (Azzahrawi, 2022). The approach was the only of three approaches discussed where the curriculum was changed to include contributions, events, issues, and concepts from different perspectives (Stanley, 2000). For example, during a lesson on World War II, contributions of Black Americans and the Tuskegee Airmen would be a highlighted topic of discussion, not a side note. The Transformation approach brought content about ethnic and cultural groups from the margins of the curriculum, like in the Additive Approach, to the center. Students constructed a basis of knowledge which reflected the experiences, values, and perspectives of more than individuals who highlighted mainstream groups, but minority groups as well (Banks & Banks, 2010). Curriculum no longer focused solely on mainstream groups but on a specific group, event, or concept from many points of view (Banks & Banks, 2010). Multicultural education sought to actualize the idea of E Pluribus Unum, or "one of many" (DomNwachukwu, 2010). To achieve the idea, students needed to understand the nation's people shared a common heritage and traditions beyond the labeling of mainstream and minorities (Azzahrawi, 2022). While the nation was diverse, the collective of shared cultural traditions, values, and political ideas aligned the nation as one.

Prejudice Reduction

The field of prejudice reduction in education incorporated a variety of theoretical approaches (Paluck & Green, 2009). The intergroup-contact approach posited optimal conditions for group contact to reduce prejudice (Beelmann & Heinemann, 2014).

Perceptual-cognitive approaches focused on altering social categorization schemes. Based on social learning, individualistic approaches emphasized education about bias and multiculturalism (Ulger et al., 2018). Social-cognitive development approaches, particularly relevant for youth, fostered empathy and moral decision-making (Paluck & Green, 2009). Methods often combined different approaches to create holistic educational experiences, showcasing the multifaceted nature of prejudice reduction.

In the prejudice reduction dimension, teachers provided lessons and activities to students to aid in the development of positive attitudes towards racial, ethnic, and cultural groups different from a student's own group identity (Banks, 1993). Phinney and Rotheram (1987) posited students came to school with many negatively held attitudes towards different racial and ethnic groups. To combat negative racial and ethnic attitudes, research supported using teaching materials highlighting different racial and ethnic groups. Using multicultural materials in lessons helped students develop positive intergroup attitudes in the proper context (Banks, 1993). The right context for prejudice reduction to occur included using positive images of racial or ethnic groups in lesson materials and the materials to be used consistently.

The analysis of systematic and meta-analytic reviews on prejudice reduction interventions revealed diverse methods and outcomes in educational settings (Grapin et al., 2019). Studies, such as Paluck and Green (2009) and Ulger et al. (2018) focused on cooperative learning, intergroup contact, and media interventions with mixed efficacy results. Notably, interventions significantly altered the attitudes of majority group children more than minoritized children (Ulger et al., 2018). The research underscored the need for more longitudinal, theory-driven studies to ascertain the most productive

approaches for reducing prejudice, especially in school environments (Grapin et al., 2019).

Biology

Biology helped the researcher understand the presence of racism today and in the past. Banaji et al. (2021) described racism as a behavior studied through observations; however, studying individuals today garnered only a proximal cause of the phenomenon. In evolutionary biology, researchers studied traits to identify proximal and ultimate causes of behaviors. Proximate causes were immediate to the behavior, while ultimate causes sought an evolutionary cause for the observed behavior (Scott-Phillips et al., 2011). For example, not only did humans adopt children, but Jane Goodall also observed chimpanzees adopted orphaned chimps, providing nourishment and care (as cited in Pusey et al., 2007). A possible proximate cause for the adoption was the adult chimp felt remorse and help in a time of need, but the theory of evolution described the ultimate cause. What followed was an attempt by the researcher to understand the ultimate cause of racism as an explanation existing today. The attempted reasoning was not an apology for the phenomenon. Instead, "if there is a possible hereditary tendency to acquire xenophobia and nationalist feelings, it is a non sequitur to interpret such a hypothesis as an argument in favor of racist ideology" (Wilson, 1981, p. 627). Society should not have accepted racism as is but worked to understand and ameliorate the condition. While adults understood the reasoning, educators helped children better understand how to treat others who did not look like them (Dunham & Emory, 2014).

The kin selection was a mechanism described by the theory of evolution and addressed the shortcomings of natural selection for altruistic behavior (Birch & Okasha,

2014). According to Wilson (1978), altruistic behavior puzzled scientists for a long time. "Generosity without hope of reciprocation is the rarest and most cherished of human behaviors, subtle and difficult to define" (p. 149). Birch and Okasha (2014) described a fundamental flaw in humans hard-wired to offer service in the hope of reciprocity, which was not to say altruism was impossible.

Humans throughout history worked, while not exclusively, to become better humans. However, the scholar practitioner wondered if a seemingly altruistic act was without benefit. "We sanctify true altruism to reward it and thus to make it less than true" (Wilson, 1978, p. 149), meaning perhaps the altruistic nature of action lessens through praise, and praise reinforced altruism (Wilson, 1978).

The researcher found the kin selection mechanism credible through the reinforcement of altruism through praise. The kin selection involved closely related individuals sacrificing themselves for others (Birch & Okasha, 2014). Praise rewarded individuals and provided opportunities to learn and continue the behavior. Furthermore, since praise improved the group's success and involved more cooperation between individuals, humans began to develop a society perpetuating the behavior (Wilson, 1978). Thus, kin selection continued to favor the trait in subsequent generations. The specific behavior drove individuals to make great sacrifices in times of war (Wilson, 1978). Wilson (1978) wrote to question the sacrifices individuals made and stated:

> When your final extinction is right there, only a few yards farther on, staring back
> at you, there may be penultimate national, social, and even racial masochism – a
> hotly joyous, almost sexual enjoyment and acceptance – which keeps people

going the last few steps. The ultimate luxury of just not giving a damn anymore.

(p. 333)

Wilson (1978) tried to say self-sacrifice was not the only reason one made a seemingly altruistic decision. Individuals may have had ulterior motives related to national, social, and even racial reasons for making the final push. Therefore, seemingly altruistic acts had other justifications besides helping a relative. Van Den Berghe (1978) later explained the shortcomings, while others perceived the work as controversial and wrongly considered an apology for racism.

Van Den Berghe (1978) explained racism as an extension of nepotism, and racism held a basis in the individual's genetics. Van Den Berghe considered racism to be deeply rooted in human biology and revealed a biological explanation for racism; however, Van Den Berghe also demonstrated the cultural phenomena found in nature. Humans were far more likely to sacrifice personal fitness for close relatives than distant relatives (Birch & Okasha, 2014). Van Den Berghe (1978) described animals engaged in nepotistic behavior, which occurred not only between family members in companies but throughout the animal kingdom, helping an individual's kin over others.

Van Den Berghe (1978) posited kin selection alone did not explain human behavior or support large human societies, but death with the relatedness between individuals and altruistic acts for related individuals. However, as a community grew, the subsequent generations became less related as the population grew (Birch & Okasha, 2014). Reciprocity was essential to keep society together. The mutualistic relationship kept distantly related individuals together through a quid-pro-quo exchange (Birch & Okasha, 2014). However, coercion seemed a factor, too, and equated to forming the

'state,' meaning governments who ruled over people developed a coercive relationship (Birch & Okasha, 2014). While many today disagree, human history suggested otherwise, such as the serf system, slavery, and Jim Crow laws (Arnesen, 1992).

Ethnicity and race may extend kinship (Van Den Berghe, 1978). Van Den Berghe described two forms of communities. Type I was described by common descent, while Type II was more extensive based on other factors, such as where a person lived or the organization a person works with. As a Type I and Type II community grew, kin selection alone could not keep the community together (Barth & Noel, 1972). Reciprocity between distantly related individuals was required.

Moreover, many societies over millennia employed coercion, using the state to control the subordinates. The Type I societies were small, with high rates of inbreeding, and referred to themselves as 'the people' according to individual beliefs (Van Den Berghe, 1978). When examining every culture worldwide, most had a creation myth, positioning members as chosen people of a God (Sampson et al., 2009). Belief in origins from a primal couple, akin to Adam and Eve, was common across cultures. However, societal structures supported tens of thousands, a small figure by today's standards. Observing Type II dynamics became challenging at such population sizes. Van Den Berghe (1978) noted only specific population sizes among age groups facilitated the observation. Societies typically formed close-knit groups with shared beliefs. Wilson (2012), in "The Social Conquest of Earth," likened the experience to watching a college football game, where two groups cheered for respective teams. In ancient times, similar rivalry played out in battles between small nations. Over time, human populations

transitioned from physical battles to symbolic ones, such as football games, where celebrating victory, symbolic of a 'battle,' persists in either scenario (Wilson, 2012).

Geneticists categorized ethnic groups as breeding populations (Van Den Berghe, 1978). Recognition of such facts led to territorial claims for specific populations. The development of social boundaries between populations fostered the formation of distinct ethnic groups. Growth within each group diminished individuals' relatedness (Van Den Berghe, 1978). Contrary to predictions of reduced cooperation, mechanisms like reciprocity and coercion maintained group cohesion (Birch & Okasha, 2014). Collaborative efforts against perceived adversaries often led to solid sentiments, including nationalism, tribalism, racism, and ethnocentrism (Birch & Okasha, 2014). In contemporary times, such sentiments rapidly spread, triggering emotions among populations (Birch & Okasha, 2014).

Geneticists asserted racial groups, viewed as superfamilies, commanded loyalty, potentially supported by natural selection to enhance cooperation and compete for resources (Van Den Berghe, 1978). Ecologists described similar interactions in nature as the mutual exclusion principle, where one population attempted to dominate a shared ecological niche (Scott-Phillips et al., 2011). In human contexts, such dynamics resemble coercion between races, exemplified by racial tensions in shared spaces, often leading to one group displacing another. Historical examples included the racial upheavals observed during and before the civil rights movement in the United States (Arnesen, 1992).

The discussion above suggested a genetic basis for racism, potentially influenced by kin selection, a mechanism historically advantageous when populations were more segregated (Van Den Berghe, 1978). In past villages, strangers differing in dress, facial

features, or skin color often met with, at best, cordial reactions, frequently perceived as threats. Such perceptions reinforced kin selection: the more traits shared with an individual, the more likely engagement in altruistic behaviors occurred (Birch & Okasha, 2014). As societies grew, surpassing early village structures, reciprocity and coercion emerged, even as populations formed empires, indicating a possible natural component of racism in human behavior.

Racism was often viewed as a learned trait (Pachter & Coll, 2009). However, research showed children from ages three to five developed racial biases, noticing race. Such observations underscored the importance of education in helping children navigate racial biases. Wilson (1978) posited, understanding the biological basis of racism through evolutionary theory was not an excuse, similar to how understanding the pancreas is not an excuse for diabetes. Recognizing the issue allowed for solutions like how insulin was synthesized for diabetes treatment. Teaching children and rewarding altruistic acts encouraged kindness and acceptance in educational settings regardless of racial differences.

Equity Pedagogy

For an equity pedagogy to exist, teachers modified instructional design to facilitate the academic achievement of students from diverse backgrounds (Banks, 1992). Academic achievements of Black and Hispanic Americans were increasingly in education systems where collaborative teaching practices, rather than competitive practices, were utilized to provide instruction (Aronson & Gonzalez, 1988). Cooperative learning also helped students from all backgrounds to develop positive racial and ethnic attitudes; however, not all cooperative learning activities yielded results. For cooperative learning

activities to attain positive attitudes for racial and ethnic groups, the activities needed to

contain essential characteristics (Allport, 1954). First, students from minority racial or

ethnic groups needed to feel an equal status with peers in intergroup interactions.

Secondly, teachers and administrators were required to display support for cross-racial

interactions. Finally, students from various racial and ethnic groups had to work together

towards a common goal (Allport, 1954).

Empowering School Culture and Social Structures

Empowering school culture and social structure, the final dimension of

multicultural education, was achieved when an organization's culture transformed to

create equal status among diverse racial, ethnic, and gender groups of students (Banks &

McGee Banks, 2004). The dimension of the bank system was the most challenging and

required a school's environment to undergo total reform to include a shift in attitudes,

beliefs, and actions of the staff, curriculum materials, assessment procedures, and

teachers' teaching styles and strategies (Banks & McGee Banks, 2004). Sleeter and Grant

(2009) argued for the importance of equity pedagogy, where teaching methods and

school practices were adapted to accommodate diverse student needs, thus enabling all

students to achieve academically. McLaren (2002) emphasized the role of critical

pedagogy in challenging existing power structures and empowering marginalized groups.

McLaren's (2002) approach transformed classroom practices and the broader school

culture, promoting social justice and equality.

As outlined by Banks and McGee Banks (2004), an essential goal of

multiculturalism was to equip students with the necessary knowledge and skills for

reflective decision-making and active community participation. Banks' approach

emphasized the development of personal and civic efficacy, fostering democratic living

(Banks & Clegg, 1990). Furthermore, Gutmann (2004) supported Banks' view,

advocating for democratic education, and cultivating students' ability to participate

thoughtfully in democratic societies. Gutmann and Banks' combined perspectives

highlighted the role of multicultural education in nurturing informed, engaged citizens

capable of contributing meaningfully to society.

Child Development

Children as young as two noticed and used race to indicate whom children chose

to play with. Then, by age four or five, children expressed racial prejudice in play with

peers (The Children's Community School, 2018). Adults tended to find the conversation

about race and prejudice practices challenging to discuss with children. Nevertheless,

refraining from having conversations resulted in children creating prejudices and

inaccurate conclusions about different races (Wu et al., 2022). Educators taught students

to develop race-ethnicity schemas as young as kindergarten by having explicit and

healthy conversations about race and embracing others (The Children's Community

School, 2018). Developing race-ethnicity schemas mattered, and the earlier an individual

developed the schemas, the more likely the person would challenge, disbelieve, or

misremember information that did not coincide with the developed schemas (Markus &

Wurf, 1987). Thus, children developed schemas which reflected prejudicial attitudes

towards individuals who were different.

Raising race-conscious children began with having open conversations and

removing the stigma adults carried into the conversations. As leaders in our community,

educators began the work in the classroom by removing the "colorblind" approach to

race. Starks' (2018) study noted colorblind teaching stemmed from educators' lack of knowledge on how to approach subjects of race or diversity. When interviewed, educators mentioned not knowing what to say, being afraid of saying the wrong thing, and inciting racial discord; the fear did not go unfounded. By age four, children who heard generic statements about groups of people, such as girls wearing pink or boys not crying, were more likely to begin to group people based on identifiers regarding sex, religion, or race (Davis et al., 2021). Generic statements resulted in children developing belief systems about groups of people not mentioned. If children took the generic phrase, boys are good at sports, children might assume a new boy student joining the class was good at sports; however even more harmful, students assumed if the new student was a girl, she might not be good at sports simply because the girl was not a boy. An adult's word choice significantly influenced how children interpreted generic claims made by adults. Children needed more pragmatic reasoning or the ability to understand the intended meaning of words and phrases. Therefore, children were more likely to develop inferences on generic claims (Davis et al., 2021).

Empathy

Empathy was essential to embracing fellow humans and understanding cultural differences. However, the study of empathy historically was challenging for researchers due to disagreements on how to define empathy properly and whether empathy was a cognitive or affective experience (Neary, 2022). Due to developments in neuroscience, researchers concluded empathy involved both cognitive and affective components. The cognitive component of empathy was described in the literature as an individual's ability to take on another's perspective and see things from another point of view, resulting in

understanding how someone feels (Bommel et al., 2020). Empathy affective components

refer to shared emotions of a similar experience, paralleled empathy, and reactive

emotions due to an individual's response or empathetic concern (Bommel et al., 2020).

According to Coplan (2011), empathy was "a complex, imaginative process through

which an observer simulates another's situated psychological states while maintaining

clear self-other differentiation" (para. 3). Coplan (2011) described three essential features

of empathy: affective matching, other-oriented perspective-taking, and clear self-other

differentiation.

Studying the development of empathy in children, Hoffman (2000) supported a

four-stage model widely accepted today. The author of the Hoffman model stated for a

child to display mature empathy, the child needed to perceive themselves as independent

of others regarding emotional states, personal identities, and contextual life factors

(Hoffman, 2000). Children who displayed high levels of empathy need to identify how

each felt in a particular situation and develop a sense of how others may feel in the same

situation. To develop the skills needed, infants and young children began by developing

primitive reactions concerning social-cognitive development across the four stages:

Global Empathy, Egocentric Empathy, Empathy for Another's Feelings, and Empathy for

Another's Condition (Neary, 2022).

Global Empathy, or the unclear self-other differentiation in Hoffman's first stage,

occurred from birth to approximately twelve months. Hallmarks of the Global Empathy

stage included infants in the first 12 months of life who displayed an unclear distinction

of the physical self from others (Oh et al., 2020). Global empathy was presented when

infants recognized the distress in others and embodied the distress as one's distress, such

as crying when the individual sees someone else hurt. Then, around six months, infants began to grasp the concept of physical distinctiveness from others (Neary, 2022). In the research, infants and toddlers were inherently responsive to the distress of others, known as prosocial behavior (Laible et al., 2021), and presented when infants sought to soothe the distressed through seeking contact.

Following Global Empathy, the second stage of Hoffman's four-stage model was the Egocentric Empathy phase. The Egocentric phase took place from the age of one to three. During the stage, children continued to distinguish themselves physically from others. However, the child was unable to interpret the internal states of individuals in each situation (Neary, 2022). Children in the Global Empathy stage were likely to comfort others who appeared distressed using preferred techniques. The prosocial behaviors included sharing food, helping locate missing items, and sharing toys with other children. However, as children aged, biases developed about whom the children reciprocated prosocial behaviors (Laible et al., 2021). Hays (1994) suggested the change occurred as children became more socially aware of norms about when timing was appropriate to express prosocial behaviors and to whom. Children also learned the costs and benefits to prosocial behavior and became more exclusive with whom the children interacted based on similarities such as race, age, and gender.

Hoffman's third stage, Empathy for Another's Feelings, occurred from ages three to eight when children developed an awareness of others' feelings and how the child may differ. At the third stage, children developed a broader vocabulary and ability to label feelings, as well as the feelings of others. Finally, during the stage, children empathized with unfamiliar individuals (Neary, 2022). For example, if the teacher is reading a story,

fiction or nonfiction, children could identify how characters in a story may be feeling about a situation.

Hoffman's final stage, Empathy for Another's Condition, occurred from late childhood through early adolescence. As the children matured the cognitive skills, allowed for empathetic feelings from individuals whose identities, experiences, and histories differed, including disadvantaged groups (Neary, 2022).

According to an individual's developmental stage, empathy was measured due to the developmental span of empathy from birth to adulthood. When measuring a child's empathic development, a child's cognitive, language, and social-emotional development were considered and accommodated (Neary, 2022). Methods to validate empathy measurements could be described as complex in creating a system to measure empathy. Specific methods included self-reports for ages three and up, other reports by parents or teachers, performance-based questionnaire measures, behavioral observations, physiological measures, such as heart rate and facial movement, and neurological measures such as magnetic resonance imaging (MRI) or functional magnetic resonance imaging (fMRI; Neary, 2022). Among the methods, self-reports and other reports were the most widely accepted approach to measuring empathy in children (Neary, 2022). The original empathy questionnaire, adapted for children, was developed by Bryant (1982) and used when sample questions used on adults were modified by the context and language to make the questions child friendly. As time passed, the language became outdated, and the validity of the questionnaires needed to be revised. However, in 2006, the development of the Basic Empathy Scale (BES; Jolliffe & Farrington, 2006) allowed for a resurgence in the popularity of questionnaires. The BES used original and

contemporary language and situations children were more familiar with than Bryant's questionnaire. Although the creation of the BES had been invaluable to the advances in empathy study in children, there were still varied results concerning the extent to which each question measured empathy, along with the psychometric property of the questionnaire (Neary, 2022). The uncertainty in the metrics resulted in a wide range of self and other-report questionnaires.

Limitations occurred with the use of self and other reporting methods. Children were not developmentally able to explain internal feelings concerning empathy accurately and could also be afflicted with social pressures and subjected to group biases. In other reports conducted by parents, a tendency existed to report higher levels of empathy due to a positivity bias. Parent ratings also influenced other parents' relationships with their children, the child's mental health, and the interactions parents observed.

In addition to empathy measuring limitations, research based on prosocial behaviors demonstrating empathy regarding ethnic or racial groups was limited. In recent years, Dahl et al. (2013) found two-year-olds began to prefer helping others, resulting in the child presenting as empathetic toward others, demonstrating no preference for gender, race, or ethnicity. However, researchers conducted most studies focused on examining empathy and prosocial behaviors in children, based on group identity in preschool to elementary school-age children. At specific age levels, researchers observed children tended to allocate more attention and resources to other children in the same group than to children in the "outgroup" or minority (Laible et al., 2021). Researchers supported children acquiring biases toward others outside the child's group from nonverbal evaluations trusted adults had sent toward outgroup members (Skinner et al., 2017).

Findings among researchers typically identified a possible explanation for racial bias in young children related to familiarity. Children whose social circle among family and friends tended to mirror the child's social grouping, such as race demonstrated preferences for others who appeared to be in a similar grouping. Children with a more diverse social circle among family and friends had a reduced preference for individuals who mirrored the child's social grouping (Laible et al., 2021).

Additional research findings suggested empathy was critical to positive out-grouping attitudes towards minority groups. When examining empathetic concern towards minority groups, individuals who possessed the ability to exhibit empathetic concern demonstrated a greater capacity for holding positive attitudes towards other groups (Bommel et al., 2020). Secondly, individuals who demonstrated parallel empathy by taking on the perspective of another group developed intergroup similarities, which led to a positive attitude towards the outgroup (Bommel et al., 2020). The intergroup similarity led to members of groups sharing viewpoints and feelings with other groups and finding commonalities between two or more groups, ultimately leading groups to see how other groups were "just like them."

Finally, minority groups faced discrimination and stigmatization at far greater rates than majority groups. However, when a majority group member demonstrated empathetic behaviors for members in a minority group, the majority group member was better informed of the injustices the minority or outgroup had endured. The development of understanding led to improved experiences for the outgroup (Nesdale et al., 2017).

Social Identity

As children aged, the child became aware social distinctions were essential. The world around children already had a predetermined social structure in which children explored and developed group identities based on the features each perceived as distinguishing factors such as age, gender, race, ethnicity, language, and religion. From the religion a family subscribed to and the sports team a child played on, to an ethnic identifier such as Italian, Hispanic, or Native American, all were groups researchers socially defined as superior or inferior to some other group. Studies used the social identity approach to describe a child's social identity, which further explained attitudes and behaviors resulting from social and cultural interactions (Verkuyten, 2021). Three components of social identity theory helped better understand children's ingroup biases: social classification, behavioral and normative meetings, and ontological nature.

First, an individual's social identity was crucial for social interactions. Society organized people into various categories and divided people based on criteria to develop intersectionality. The division meant children learned people were in-grouped or out-grouped due to contexts. When individuals identified a group or identity, they used the information to inform unself perceptions of self (Verkuyten, 2021). However, an individual's beliefs did not define a racial or ethnic group. Groups constructed identities by shared memories surrounding rules, regulations, symbols, and cultural narratives (Verkuyten, 2021). Making distinctions about people and the specific grouping at a young age resulted in children developing ingroup biases and at the same time did not necessarily mean children had negative outgroup biases. Negative outgroup biases tended to develop around the age of six (Nesdale, 2017). Aboud's (1988) study concluded for

White children, ingroup preferences were visible around the age of four and peaked between the ages of five and seven with the preferences slowly declining after the age of nine. However, in Aboud's (1988) study, children from minority races were apathetic towards the ingroup and held an outgroup preference.

Individuals adopted group identity once the process began of identifying the group an individual belonged to. The social identity approach examined behavior as a group experience. Individuals transformed their behavior to mirror the collective group's behaviors and interests and begin to understand themselves within the group's norms and values and assign to the individual's identities (Verkuyten, 2021). Beyond the social classification of grouping, individuals needed to confront stereotypical expectations and behavioral consequences of the group identity. Societal norms placed behavioral norms on groups of people dictating the expectations of how group members spoke, thought, acted, and even felt when interacting in society (Nesdale, 2017). Beyond developing a group identity and informing one's self-identity, group identities also informed the level of empathetic tendencies towards outgroups. When peers within a group identified a negative trait of an outgroup, parallel empathy became difficult in the ingroup. Researchers observed the negative outgroup interaction in several studies, such as Nesdale (2017), where researchers gave children in a group negative information about an outgroup. Children in the ingroup with information limited the level of parallel empathy towards the outgroup and encouraged the peers in the ingroup to do the same. Likewise, when children in the ingroup received positive information about the outgroup, children exhibited greater parallel empathy and intergroup empathy. The positive

information transcended to other members of the ingroup when peers shared new

knowledge of the outgroup (Nesdale, 2017; Neumann et al., 2013).

However, Newmann et al. (2013) reported children who had highly empathetic

traits were not as easily swayed by groupthink and demonstrated higher levels of

empathy towards ethnic groups experiencing discrimination. Bommel et al. (2020) also

supported the idea by indicating outgroup empathy was less prevalent than ingroup

empathy. When children learned to place themselves the position of someone from an

outgroup, each became more familiar with the outgroup and developed more excellent

empathetic traits. Thus, a child's intergroup relationships improved by increasing

empathy trait. Many interventions to improve multicultural empathy focused solely on

increasing an individual's outgroup empathy; however, focusing on interpersonal

empathetic traits may create greater empathy for minority groups and less discrimination

(Bommel et al., 2020).

Finally, the ontological component of the social identity approach implied not all

group identities served a function in the whole of society. Verkuyten (2021) gave the

example of a schoolteacher grouping children into work groups based on tasks. The

groupings did not develop into social identities. Group identities in society informed what

category a person belonged to, leading to judgments about whom each person based the

grouping on; additionally with the groupings came labeling. Labels which included

quantifiable qualities across groups lead to children assuming all people with the same

grouping or label were similar. The labeling function of groups contributed to the

formation of ingroup bias in children (Bigler et al., 1997). Children began to label

themselves using terms to distinguish self from others in an "us and them" mentality

before age six, proving categorizing and labeling were a precursor to ingroup bias (Verkuyten, 2021).

Children who wanted to understand the world looked for ways to do so. Children also wanted to understand where and how they fit into the world around them. To accomplish the process of fitting in, children turned to a group to create social constructs and social identities for themselves (Stets & Burke, 2000). Children developed a sense of self in the desire to belong, striving for a positive relationship among peers by acting in a way that reflected the values and behaviors of each child's social grouping (Verkuyten, 2021). As children became more secure in society and the grouping process, the sense of self became more pronounced and confident (Jhangiani & Tarry, 2022). A cheerful group and self-identity increased self-esteem and possibly increased ingroup bias towards other groups who did not mirror the same values, behaviors, norms, or beliefs (Stets & Burke, 2000).

Theoretical Framework

Theoretical frameworks served as pivotal guideposts for academic research, anchoring investigations in established thought and scholarship. Intersectionality had become increasingly salient in understanding how various social identities, such as race, class, and gender, intersect and overlap, created a multiplicity of experiences misunderstood in isolation (Atewologun, 2018). Concurrently, the nuances between equity and equality had become central to many academic discourses, highlighting the differences between equality and equity (Latta, 2021).

Intersectionality

As discussed previously, children viewed the world through social categories and developed social constructs based on individual group identity. Authors within the current literature individually examined the development of group identities across social categories (Stets & Burke, 2000). However, a gap in the understanding of cognitive development occurred in the development of belonging across multiple groups, for example, how children thought about race and gender or race and culture. The development area was critical, as people belonged to more than one social group (Lei & Rhodes, 2021). An intersectional framework allowed researchers to examine how group bias expressed belonging toward people in one outgroup versus an individual's membership in several outgroups. Researchers enhanced empathy for minority outgroups using intersectionality to understand how children used race and gender to address group biases (Verkuyten, 2021).

Intersectionality was a critical framework used to examine the interconnectedness and interdependencies between social categories and systems while providing the language and mindset needed to make the connections (Atewologun, 2018). Emerging from the collective experiences of minority ethnic women in the United States, intersectionality had become prominent across organizational studies. Intersectionality denoted the meeting point of two or more social axes or systems of power, such as dominance or oppression, drawing attention to an individual's and group's multiple positionalities at micro and macro levels. Using intersectionality, scholars defined how forms of discrimination, like racism, created layers of inequality among groups of people (Verkuyten, 2021).

A benefit to using Intersectionality as a framework for organizational studies was the lowered risk of essentialism. Essentialism referred to the assumption an individual's ethnicity or gender defined how the identify crossed categories, ignoring other influential factors such as other identities an individual subscribed to beyond gender and ethnicity, spaces, and systems to which the individual belonged. Intersectionality had also increasingly supported qualitative research methods due to the ability to give voice through focus groups, narrative interviews, action research, and observations (Atewologun, 2018).

According to the 2018 U.S. Census Bureau, statistics projected the United States will become a majority-minority nation by 2045. However, the demographic change already appeared in public schools, particularly urban schools. In 2019, 49% of public-school enrollment was White, and leaving 51% of public-school enrollment to be made up of minority students (National Center for Education Statistics [NCES], 2022, para. 2). However, when focused solely on the demographics of urban school districts, the population of minority students jumped anywhere from 7% to 15% (NCES, 2022, para. 4). While the numbers focused on the racial/ethnic make-up of public-school systems across the country, students did not belong to simply one social group. Students used other social identities, such as gender and sexual orientation, to define themselves.

The intersectionality of a student's race/ethnicity, along with gender and sexual orientation, created a unique perspective for researchers to study how students were ultimately responded to and perceived by society. The perceptions altered the student's emotional and physical well-being, as well as the student's academic achievement (Atewologun, 2018). In Assari and Caldwell's (2018) study on perceived teacher

discrimination at the intersectionality of race and gender, male and female students reported similar perceived teacher discrimination. However, female students' academic performance was affected more often than the male peers, resulting in lower grade point averages for female students who experienced perceived teacher discrimination.

The argument could be made diverse cultural learning opportunities supported positive perceptions of various juxtapositions in an individual's identity, leading to a more tolerant society. Developmental psychologists specializing in social identities and intergroup relationships embraced the need to move away from single-identity approaches toward intersectionality; however, intergroup studies still primarily examined single-identity approaches, focusing only on race/ethnicity, gender, or sexuality. Developmental theories focused on a single identity and how stereotypes formed for a particular identity also failed to consider systems or power, privilege structures, and disadvantages some identities still faced (Atewologun, 2018).

Critical Race Theory

Critical Race Theory (CRT) was an intellectual and social movement which posits race as a socially constructed category used to oppress people of color (Ladson-Billings, 2009). CRT challenged the idea legal institutions were neutral and argued laws and legal practices in the United States historically functioned to maintain social, economic, and political inequalities between Whites and non-Whites, particularly African Americans (Taylor, 2023). CRT emerged in the 1970s as a reaction to the perceived stagnation of the civil rights movement, aiming to highlight and address systemic features of the legal system that perpetuate racial inequalities (Sawchuk, 2021).

CRT did not claim all White people were inherently racist. Instead, it suggested racism was embedded in everyday life and individuals, regardless of intentions, made choices which perpetuated racism (Taylor, 2023). The perspective emphasized the importance of examining outcomes and systemic structures rather than focusing solely on individual beliefs or intentions. CRT had been a subject of controversy, particularly in education, where the concept had been misrepresented by some as advocating for discrimination against White people to achieve equity (Ladson-Billings, 2009). However, scholars and educators in the field often focused on how educational policies and practices contributed to persistent racial inequalities and sought ways to address the issues (Taylor, 2023).

Equity and Equality

Enid Lee (2021), a leader in anti-racist professional development across the globe, stated, "Equity in practice means undertaking the necessary measures to undo or redress inequities in schooling and society to ensure everyone experiences equality" (Enid Lee Consultants, 2021, 1:34). Enid Lee Consultants (2021) believed teachers should begin with what educators can control. When educators came together and made small changes in how teachers greeted students, how teachers approached discipline across student populations, and how teachers built classroom communities, teachers could then begin the more extensive work of tackling systemic equity issues experienced by Black and Brown Americans (Enid Lee Consultants, 2021).

According to Beachum (2018), students of color and in poverty were far behind academically compared to White, more affluent counterparts. Furthermore, when looking at school discipline referrals, students of color received harsher punishments for lesser

infractions than White counterparts. Nevertheless, when discussing the phenomenon with educators, many were unaware, and lacked the understanding and training to evaluate and implement more fair practices (Worrell, 2016).

The term equity was often confused with equality. However, interchanging the terms with one another did a disservice to resolving unfair practices of disadvantaged students in the classroom (Rachid & Igbida, 2022). Equality was used more often because people were more familiar with the meaning behind the word, creating an equal opportunity or environment for all. Many were still determining the exact intentions regarding the word equity. Equity referred to providing others with resources aligned with an individual's unique needs (Latta, 2021). Schools providing equitable resources aligned more closely with the specific needs of students to surmount challenges, thereby fostering an environment conducive to reaching a student's full potential (Latta, 2021).

Many schools operated under a horizontal equity approach, which involved treating individuals assumed to be equal (Latta, 2021). The horizontal equity approach had shown success primarily in educational settings where students shared similar backgrounds and life opportunities (Cramer et al., 2018). However, Latta (2021) noted the horizontal equity approach in schools could have improved with significant variations in race and socioeconomic status. In specific types of environments, horizontal equity did not lead to equitable education, more was needed to provide the necessary resources to overcome educational barriers faced by disadvantaged groups (Gorard & Smith, 2004). To address the disparities, the concept of vertical equity gained importance. The vertical equity approach focused on recognizing and meeting the individual needs within the

school community, thereby providing resources based on each student's unique

circumstances (Cramer et al., 2018).

Vertical equity emerged as a crucial goal for school leaders seeking a more

inclusive and equitable educational experience (Latta, 2021). In addition to equity

models, recent strategies in educational equity emphasized the need for more

comprehensive approaches including setting clear visions for equity, ensuring ownership

at all levels, and translating equity into actionable plans (Russell & Riley, 2021).

Enhancing equity capacity for school leaders and staff, ensuring equitable access to

quality education, and enabling the thriving of students and families were also

highlighted as critical measures (Russell & Riley, 2021). When educators focused on

providing equitable opportunities to students, academic achievement improved across all

students. Researchers Gorard and Smith (2004) found when given resources to meet a

student's individual needs, students in the most disadvantaged population of school

settings increased test scores higher than students from the more privileged population,

thus creating a smaller achievement gap.

Looking beyond academic benefits, the Organization for Economic Co-Operation

and Development identified promoting school equity as the "best and most effective

social investment" for communities (OECD, 2012, p. 11). Citizens within the

communities who provided equitable opportunities in the schools had more

compassionate citizens communities and more sustainable economic growth (OECD,

2012). Moreover, strategies like focusing on the whole child, integrating parent voices

into school decision-making, engaging various stakeholders in planning, and examining

and dismantling racist and inequitable practices in schools were advocated (Lloyd et al.,

2021). All the strategies underscored the importance of academic achievement and considered students' social and emotional needs, family backgrounds, and the broader community context (Russell & Riley, 2021).

While the horizontal equity approaches were beneficial in specific homogenous settings, the necessity for vertical equity became evident in diverse educational environments. By acknowledging and addressing individual needs, schools worked towards providing more inclusive and equitable educational experiences for all students (Latta, 2021). Additionally, implementing broader strategies involving various stakeholders and focusing on the whole child was essential for establishing truly equitable educational systems (Lloyd et al., 2021).

Educator Competencies

Educator competencies had long been the cornerstone of teaching and consequential outcomes for students. Within the fabric of the American educational landscape, disparities existed, which significantly influenced the experiences of Black and Hispanic students (Darling-Hammond, 2007). Research, including studies by Darling-Hammond (2007) and Gay (2010), indicated teacher attitudes, curriculum implications, and racial discrimination played crucial roles in either hindering or promoting the academic progress of minority groups. The pervasive nature of educator competencies necessitated critical evaluation and addressing, not just for advancing Black and Hispanic students, but also for the holistic improvement of the education system (Casto, 2019).

Teacher Attitudes

As communication capabilities worldwide developed and evolved, the lines of interaction across people from all backgrounds transformed. Globalization in education enabled students and teachers to participate in educational activities worldwide, even from within classrooms (Fraillon et al., 2020). However, participation in activities worldwide only sometimes occurred. To embrace globalization and expose students to other cultures, educators needed to maintain a positive attitude toward multicultural education (Ladson-Billings, 1995). A positive attitude was a respectful and tolerant disposition toward different cultures, aimed at providing equitable education without discrimination towards race, language, religion, gender, or sexual orientation. However, numerous teachers were unprepared to facilitate multicultural learning for students from various social and cultural backgrounds (Gay, 2002; Ladson-Billings, 1995).

Multicultural education was an ideology composed of policies and practices related to the education of human diversity in society (Grant & Millar, 1992). Multicultural education educators had to embrace discussions surrounding race, ethnicity, and culture. Race defined the physical characteristics of an individual's outer appearance, such as skin color, hair type, or eye color, and were generally unchanged while ethnicity defined an individual's social identity and status of belonging to a group, referring to traditions or language use (Bennett, 2003). Like race, ethnicity was generally unchangeable regarding an individual's identity (Bennett, 2003). However, culture referred to how a group of people felt or behaved. While a community's tradition often defined culture, culture evolved as values, experiences, and beliefs were passed from generation to generation (Karacabey et al., 2019).

Multicultural education was a reform movement aiming to provide all students with equal educational opportunities and to create conditions supporting all students, regardless of race, gender, culture, language, religion, sexual orientation, or social class (Banks & McGee Banks, 2004). Multicultural learning environments embraced diversity, and learning conditions promoted respect for differences (Nieto, 2004). To achieve such a learning environment, students had to communicate and interact with different cultures gained through exposure to and study social, civic, and political activities (Karacabey et al., 2019). Providing the exposure and study of the core competencies of multicultural education, schools required qualified educators to understand the differences among groups of people or students, communicate despite cultural differences with students, and aid students in reaching academic goals (Karacabey et al., 2019).

Across the country, classrooms increased in diversity due to migration factors, such as refugees from war-torn parts of the world, people seeking political asylum, transplants from various countries here with families on work visas, and other migration factors (Arar et al., 2019). Migration situations led to an increase in different races, ethnicities, and cultures coming together in communities. Like many other sectors of society, the education system and schools were affected, and policies implemented to embrace changes came with the new, diverse landscape of schools. Multiculturalism required people to accept differences as a reason to bring richness to society rather than create a divide across differences (Banks, 2015). For multicultural education to be successful and carry the richness into the classroom, educators had to wade through obstacles, such as educational policy, curriculum, resources, and teacher attitudes and behaviors (Karacabey et al., 2019).

Multicultural education was necessary to provide an equitable education for all students (Banks & Banks, 2010). However, creating the learning environment conducive to multicultural education frequently became the teacher's responsibility. To deliver multicultural education, teachers changed identities and became transformative individuals who sought to learn from others (Karacabey et al., 2019). Researchers suggested three main competencies to help teachers develop multicultural competencies during the transformative shift. The first was the teacher's understanding of the teacher's own culture's meaning (Allen et al., 2021; Ladson-Billings, 1995). Educators needed to be self-aware of cultural beliefs and practices to determine how the teacher's culture would intersect with other cultures. School cultures which promoted educational hegemony created spaces limiting opportunities for minority students (Allen et al., 2021).

A second competency was the level of professional development educators had received (Ladson-Billings, 1995). Educators typically moved from novice to expert in the professional development of multicultural education practices (Allen et al., 2021). Educators more readily familiar with multiculturalism, from participation in extensive professional development, were likely to have better results in creating a class environment conducive to embracing diversity (Banks & Banks, 2010). The third competency educators required to acquire multicultural competence was based on the teacher's personal and educational qualifications (Ladson-Billings, 1995). Classroom teachers with more worldly experience with different cultures were more likely to embrace students from diverse backgrounds more readily than teachers with little to no experience outside the teacher's own culture (Banks, 1992; Gay, 2002).

Curriculum Implications

Historical racial inequality in the United States education system was a profound issue (Dupree & Boykin, 2021). The landmark Supreme Court Case, Brown v. Board of Education of Topeka in 1954, ruled racial segregation unconstitutional, marking a pivotal effort toward reforming racial injustices (Warren & Supreme Court of The United States, 1953). However, decades passed before racial segregation in schools ended (Dupree & Boykin, 2021). More recently, the widening income-achievement gap suggested a resegregation in urban communities as social classes grew further apart, with students' race, ethnicity, or socioeconomic status often dictating the quality of education received (Reardon, 2011).

In recent years, legislation such as the No Child Left Behind Act (2001) and the Race to the Top initiative (2012) aimed to bridge the achievement gaps but adversely lowered student achievement among minority students (as cited in Fusarelli, 2004). The students, often in lower-quality schools with less qualified teachers, faced the burden of teaching to the test (Powell et al., 2009, p. 28). The Every Student Succeeds Act (ESSA, 2015), signed into law by President Obama in 2015, replaced No Child Left Behind, shifting control from federal to state and local levels while renewing a commitment to educational excellence nationwide (Fusarelli, 2004).

Despite rapid changes in school demographics, the education system and curriculum largely remained static, reflecting a monocultural, White middle-class, Anglocentric perspective (Munzer, 2021). The curriculum, unreflective of the diverse experiences and perspectives of students, continued to evolve slowly since the 1970s, including ethnically diverse persons and places, yet retaining a predominant viewpoint in

historical narratives such as the California Gold Rush (Elias & Feagin, 2016).

Implementing the Every Student Succeeds Act saw a deceleration in the growth of

multicultural education due to the increased focus on standardized tests and state

standards regulating school curricula (Casto, 2020).

In the American education system, educational excellence and equity often stood

in opposition (Obiakor & Beachum, 2005). The concept of educational equity extended

beyond treating all students equally and involved recognizing and addressing each

student's unique needs and circumstances. One significant barrier to achieving

educational equity in the United States was the persistence of racial inequalities (Boser,

2011). Equity, despite being a critical need, faced numerous challenges, including the

under-representation of Black teachers relative to Black students, lack of staff of color in

44% of schools, and the transfer of teachers from inner-city schools to more affluent ones

within the first five years of teaching (Boser, 2011, para. 6). Furthermore, researchers

reported for most students, achievement gaps visible in the fourth grade were strong

predictors of student success in high school and college, as well as lifetime earnings in a

chosen profession (McKinsey & Company, 2009).

Another critical aspect of equity in education included the issue of food

insecurity. Many students who did not get enough to eat struggled to maintain focus and

perform academically, which further widened the achievement gap for many students

(McIntosh et al., 2020). Beyond food insecurity, homelessness and poverty lowered

academic achievement, with children living in poverty less likely to have early education

experiences and more likely to experience frequent school changes and higher risks of

child abuse and neglect (Kent et al., 2019). Several strategies had been proposed to

address the above challenges. For example, working to provide all students with access to necessary technology and resources was vital, especially in the context of the shift toward online learning (Gonzales et al., 2020). Reversing the trend toward privatization of education and increased support for public schools was identified as another crucial step (Owens, 2020). Expanding services for students with disabilities, enhancing teacher professional development, and increasing school health personnel were all identified as leading measures to improve educational equity (Gilmour et al., 2019).

Racial Discrimination and Black Students

In past educational research, literature frequently defined the experiences of Black students in America, highlighting the discrimination Black students faced. Studies commonly cited a negative association between discrimination and low levels of student performance while many Black American youths in the education system reported experiences of perceived discrimination (Brooms, 2022). Discrimination was common for Black American youth to experience approximately five racial discrimination incidents occurred per day from teachers or peers (Allen et al., 2021). Perceived teacher discrimination contributed to the racial and ethnic achievement gap while serving as a predictor of poor school performance, including risks of school dropout or low-grade point averages (Assari & Caldwell, 2018). Perceived discrimination carried several risk factors for students beyond school performance, such as depression, anxiety, suicide, substance use, obesity, social isolation, and hypervigilance (Assari & Caldwell, 2018). Black boys and girls reported similar rates of perceived discrimination from teachers and peers.

Despite the similar rates, biases often existed among teachers toward Black male students, labeling the students as unteachable (Brooms, 2022). Being labeled unteachable resulted in an over-representation of Black male students in special education services and an underrepresentation in gifted services. Studies indicated teachers often overused punitive and exclusionary discipline practices, such as school suspension, detention, or in-school suspensions with Black male students, which could perpetuate systemic oppression and potentially lead towards prison after high school (Assari & Caldwell, 2018).

Black female students often faced comparisons with White peers by teachers, leading to labeling the students as loud, promiscuous, and defiant resulting in strained interactions between Black female students and teachers (Damico & Scott, 1985). Assertive responses from Black female students in class were often misinterpreted as anger. What was considered a leadership quality in White male and female students was seen as defiance in Black female students and penalized (Assari & Caldwell, 2018). Black female students not conforming to the behavior like White peers experienced higher discipline rates than White female students, Latinx male and female students, and Black male students (Allen et al., 2021).

A critical examination of the teaching profession was necessary for providing equitable learning outcomes for all students, regardless of race. In the 2017-2018 school year, 79% of public teachers were identified as White (NCES, 2018, para. 1). The discrepancy highlighted the need for educators to examine individually held biases, considering the student population did not reflect the teacher population. When Black teachers were present in classrooms, Black students reported higher academic success

and fewer behavior referrals (Allen et al., 2021). However, non-racist practices and

culturally responsive teaching were also critical in achieving similar outcomes for Black

students as having Black teachers. When teachers supported students in embracing

individual cultures and experiences, a transformation occurred in both the teacher's

perceptions and student performance (Ladson-Billings, 2009).

Racial Discrimination and Hispanic Students

Researchers historically concentrated on the implications of the 1954 ruling from

Brown v. Board of Education; however, the less-known 1947 decision in Mendez v.

Westminster also played a crucial role in educational history. The ruling marked the end

of what is known as "de jure" segregation of Mexican Americans in California (Alvarez,

1984). The segregation of Mexican Americans, or Hispanic Americans, was prevalent in

the southwestern region of the United States, mirroring the segregation of Black

Americans in the south (Wright et al., 2014). During the 1930s, states such as California

and Texas commonly segregated Hispanic students in schools (Alvarez, 1984). The

increase in Hispanic populations in southwest states, fueled by farming opportunities, led

to the establishment of separate schools for "Americanizing" Hispanic children (Madrid,

2008). Hispanic families in California successfully challenged "de jure" segregation in

1946, making the Mendez decision a pivotal moment in understanding the educational

challenges faced by Hispanic students (Madrid, 2008).

The National Center for Education Statistics (NCES, 2022) reported a significant

demographic shift in student populations from the fall of 2009 to the fall of 2020. The

percentage of Hispanic students rose from 22% to 28%, while the percentage of White

students declined from 54% to 46%, and Black students decreased from 17% to 15%

(NCES, 2022, figure 1). Despite changing demographics, Hispanic students continued to encounter numerous disadvantages nationwide. For instance, in Arizona, where Hispanics constituted 45% of the student body, state law prohibited English language learners from receiving instruction in the student's native tongue and segregated the child from English-speaking peers (Arizona Department of Education, 2022). Segregation persisted even without explicit state laws, as evidenced by Hispanic children's likelihood of attending schools with fewer White peers (Ramirez, 2017). In 1998, Hispanic children typically attended schools where approximately 40% of classmates were White, dropping to just 30% by 2010 (Fuller et al., 2019, p. 247). The trend of increasing segregation was particularly pronounced in urban school districts. Data from 2010 revealed in the 10 poorest U.S. school districts, Hispanic elementary students were in schools with only about 5% White students (Fuller et al., 2019, p. 250).

The challenges extended beyond segregation. Schools with 90% or more Hispanic students received $733 less per student annually (Walker, 2020). Additionally, Hispanic children, even in areas with more White students, were at risk of unequal educational services and care. Early childhood adverse experiences, such as racism, poor nutrition, and lack of preschool programs, detrimentally altered children's social, emotional, and academic well-being (Ramirez, 2017). Discrimination at a young age significantly altered a child's health and development. Benner et al.'s (2018) meta-analysis of 214 children found discrimination consistently resulted in poorer mental health, lower academic achievement, and riskier behaviors (para. 40). Hispanic children in the study faced a greater risk of adverse mental health impacts compared to Black children, potentially due

to a type of discrimination which portrayed Hispanic people as "perpetual foreigners" in contrast to Black individuals (Benner et al., 2018).

Implications

Understanding the experience of minority students within the education system was crucial, as the experiences shaped the students' future trajectories. The outcomes of the minority students' education determined whether students graduated high school, pursued higher education, entered the workforce directly, became responsible citizens, or encountered the penal system (Gray et al., 2018). How students were raised to view education was significantly influenced by school experiences (Skiba et al., 2008). Researchers demonstrated how educational environments and experiences fostered a sense of belonging and motivation or led to feelings of alienation and disengagement among minority students (Gray et al., 2018). For instance, a study by Gray et al. (2018) emphasized the influence of school climate on the educational outcomes of minority students. The findings indicated a positive and inclusive school environment could significantly enhance academic achievement and reduce dropout rates among the students.

Institutional racism often became embedded within organizational structures, influencing policies and systems (Skiba et al., 2008); and created disparities in educational achievements, favoring White students over minority students who faced discrimination and disadvantages due to systemic oppression (Beachum, 2018). Discriminatory practices in schools manifested when seemingly race-neutral policies led to racially biased outcomes. An example of discriminatory practices was the

disproportionate identification or misclassification of students of color into special

education services compared to White peers (Asola & Obiakor, 2016).

Summary

Globalization created a unique social transformation of the world. In 1970, the

U.S. population comprised 4.7% of immigrants; however, in 2018, the number jumped to

13.5% of U.S. citizen immigrants (Budiman, 2020, para. 3). As technology advanced

communication, global markets competed for economic prosperity and global migration

continued to stay on trend; education systems needed to find ways to evolve and embrace

the cultural shift within communities. Reform movements, like school choice and

standardized testing, also reinforced the need to prepare students to thrive in a global

society (Owens, 2020). Multicultural education was evident in other countries, such as

Finland, South Korea, and Singapore to prepare students for global citizenship and

embrace the societies' diverse evolution (Kim, 2020). However, in the United States,

multicultural education only appeared in pockets nationwide (Casto, 2020). With

inconsistency across the country in the roll-out of multicultural education, few studies

investigated teachers' awareness of multicultural education. With teachers being the heart

of the classroom, teacher perception of multicultural education determined how teachers

implemented multicultural education. Doing so without understanding or self-awareness

may have caused more harm than good. When teachers learned about inclusive practices,

educators developed an understanding of the differences between various cultures and

ethnicities (Banks, 2004). The additional knowledge enabled the teacher to integrate

inclusive practices into district-approved curricula, creating multicultural classroom

learning experiences. As a result, interpersonal relations among students improved, and the risk of conflicts due to cultural and ethnic differences was reduced (Byrd, 2016).

Globalization and the advancement of new technologies connected people globally and shaped classrooms nationwide to reflect a multicultural identity (Becirovic & Brdarevic-Celijo, 2018). Teachers were expected to engage in and utilize competencies to increase multicultural practices, in preparation to respond to the complex needs of a culturally rich student population within classrooms and schools (Blue et al., 2018). Educators were also encouraged to adopt teaching practices promoting inclusivity and to develop an understanding of distinctions between cultures. Understanding advanced interpersonal relationships and potentially reduced conflicts between students from different backgrounds (Blue et al., 2018).

Multicultural education encompassed the concept students used to develop schemas and knowledge of different cultures through exposure to various cultural attitudes, values, and ideals (Goo, 2018). Multicultural educational programs aimed to target inclusivity among student populations from diverse cultural and ethnic backgrounds (Hadjisoteriou et al., 2015). The increased inclusivity led to higher levels of efficacy among educators, enhancing students' ability to process information and reducing barriers originating from deprecating beliefs about different cultures (Ingraham et al., 2016).

Chapter Three: Methodology and Results

Problem Statement

The challenges associated with racism in the education system necessitated the

importance of multicultural education (Banks & Banks, 2010). Despite the significance,

the staff, students, and families in the attendance boundaries of the research site's district

did not believe the school district provided adequate training to the staff to support

student populations (Panorama Education, 2021). Teachers lacked professional

development in multicultural studies, making addressing topics regarding race and

diversity confidently challenging. The scholar practitioner's problem of practice focused

on the need for professional development to integrate multicultural activities and diverse

topics into the school-approved curriculum. The use of professional development aimed

to provide teachers with the language and skills needed to foster an environment in

classrooms where students from varied backgrounds felt valued and supported. Through

tailored professional development, educators could learn strategies for incorporating

diverse cultural perspectives into teaching practices, thereby creating a more inclusive

and supportive educational environment for all students (Allen et al., 2021).

Design Thinking Process

The design thinking process was described as human centered for creating

solutions to issues people encountered (Li & Zhan, 2022). At the center of the design

thinking process were the consumer or stakeholder needs, which, through an iterative

process, prototypes were tested, and innovative solutions identified (Hastings, 2018a).

The design thinking process consisted of five basic steps: empathize, define, ideate,

prototype, and test (Razzouk & Shute, 2012). The purpose of the empathy phase in the

design thinking process was to allow the facilitator to understand the user's unique needs without inserting the facilitator's presumptions about the problem (Barnes & Du Preez, 2015). To better understand the user's needs, the facilitator engaged with users while practicing three actions supported by the design thinking process: observations, immersion, and engaging (Hastings, 2018b).

The central problem underwent meticulous development, refinement, and reframing during the define phase relying heavily on synthesizing data collected in the empathy phase, providing a deep understanding of the problem from various perspectives. Creating personas became a pivotal method to facilitate the definition process and detailed representations of potential users or stakeholders, instrumental in developing problem statements (Hastings, 2018c). Personas served as tools to maintain a human-centered approach through the process by considering the different viewpoints and experiences of the users (Li & Zahn, 2022). In addition to personas, other methods, like the "five whys" technique, were employed. The "five whys" technique involved asking "why" multiple times to delve deeper into the root cause of a problem. Another similar method was the "how might we" approach, which encouraged a solution-focused mindset, prompting the team to think creatively about potential solutions (Dam & Siang, 2020a). The "five whys" and "how might we" methods were pivotal in pinpointing the specific problem addressed, allowing the team to transition into the ideation phase with a solid understanding of the core issues.

The ideation phase began once the scholar practitioner identified a clear and well-defined problem. The ideation phase generated ideas and potential solutions to solve the identified problem (Carlgren et al., 2016). The goal of the ideation process was quantity,

not quality, and diversity (Hastings, 2018d). All collaborators needed an equal voice in

sharing ideas; no idea should be rejected. Human nature wants to focus on the relevance

of an idea and the workability; however, during ideation, novelty was embraced (Knight

et al., 2019). Innovation blossomed when novelty and relevance intersected (Hastings,

2018d).

In the design thinking prototype phase, teams selected and developed initial

models of the proposed solutions from the ideation phase. The prototypes typically

represented cost-effective and simplified versions of the final intended product. The

primary goal of creating a prototype was to experiment with a tangible representation

which could address the defined problem (Hastings, 2018e). The utility of prototypes

extended to allowing the scholar practitioner and design team to identify potential flaws

or shortcomings in the solutions, sometimes leading to the realization a complete

overhaul of the proposed solution might be necessary (Dam & Siang, 2020b).

Furthermore, the prototype phase provided an invaluable opportunity for stakeholders to

engage with and provide feedback on the proposed solution, thereby validating the

design's usefulness in real-world scenarios (Gibbons, 2016). The prototype phase

emphasized a practical approach, moving beyond theoretical solutions to testable models

which could be evaluated for functionality, user experience, and overall ability to solve

the identified problem (Hastings, 2018e).

In the final phase of the design thinking process, the selected prototypes

underwent testing. The testing phase was pivotal and provided valuable insights into the

efficacy and viability of the prototypes (Gibbons, 2016). The primary objective of the

testing was to observe and gather information on how well the prototypes worked in

solving the defined problem (Hastings, 2018c). The scholar practitioner closely

monitored end-users' interactions with the prototypes to identify areas of success and

opportunities for improvement. Notably, the testing phase did not signify the conclusion

of the design process. Instead, testing was an iterative phase where discoveries or

unforeseen challenges could prompt the team to revisit earlier stages of the process, such

as ideation or prototyping (Dam & Siang, 2020b). The cyclical nature of design thinking

underscored the fluidity of the process, where adaptability and responsiveness to new

data were key (Lockwood, 2010). Moreover, the testing phase was an opportunity for

practical application, offering a critical reality check on theoretical solutions proposed in

earlier phases. The testing phase validated the design against user expectations and

practical constraints, ending with a final product deemed innovative, practical, and user-

centric (Dam & Siang, 2020b; Lockwood, 2010).

Empathy Phase

The researcher studied and engaged in several empathy generators throughout the

empathy phase. Qualitative research collection tools were appropriate, because the tools

allowed the scholar practitioner to ask questions about human experiences and by

extension, create understanding (Sutton & Austin, 2015). Qualitative research tools also

allowed the research process to evolve as new inquiries arose (Aspers & Corte, 2019). To

begin, the scholar practitioner asked the following formulated questions to serve as a

guide throughout the design thinking process:

1. Why should our organization care about diversity within our curriculum?

2. What would our organization look like if the school included more diverse
   and inclusive materials?

3.   What would employees gain by being more diverse and inclusive?

4.   What is holding employees back from maximizing diverse groups of people?

5.   What is one thing employees could do to increase the inclusion of diversity practices?

The researcher used triangulation to seek convergence across three data collection methods used during the empathy stage. Data collected through triangulation provided credible evidence and reduced room for bias (Sutton & Austin, 2015). The researcher selected the following empathy generators: document analysis, focus groups, and surveys as qualitative tools during the empathy phase. Document analysis included the data results from the 2021-2022 beginning and end-of-year Panorama Survey and the 2022-2023 beginning-of-year Panorama Survey. The researcher also used two focus groups as another data collection tool; one group included two administrators and one curriculum coach. The second focus group included three teachers, one parent, a school counselor, and a building secretary. Focus groups were divided into different groups to reduce concerns over being reprimanded by the participants if answers were less than satisfactory due to power dynamics.

Finally, the researcher administered one *Qualtrics* survey to gather data from 11 participants, specifically grade-level teachers from kindergarten to fifth grade, school counselors, school administrators, curriculum coordinators, instructional coaches, and school board members. Conducting an e-survey gathered responses quickly and allowed for more emotional responses to be shared without having to speak directly with the researcher (Quaquebeke et al., 2022).

The data collected during the empathy phase was analyzed to identify response patterns and themes to guide the researcher beyond the empathy phase. The researcher sought equitable instructional methods to deliver multicultural content for all learners. At the time of the study, the research site did not offer professional development for teachers to feel prepared to approach diverse content or students from diverse backgrounds equitably. The data from the focus groups and *Qualtrics* survey revealed professional development as an area for growth at the research site, and one educator perceived professional development as necessary due to the increasingly diverse student populations specific to race, culture, and socioeconomic status.

Document Analysis

Panorama data indicated the research site's staff, students, and families did not believe the school district provided adequate training to staff, which supported equitable learning outcomes for ethnically diverse student populations (researched school district, 2021). Teachers reported a need for more professional development in multicultural studies to confidently approach complex topics regarding race and diversity across the school district. Teachers feared repercussions from district parents and students if sensitive topics arose in class or if the topics presented information incorrectly. Staff at the research site decided to learn ways to build multicultural activities and diverse topics into the lessons so students from diverse backgrounds felt supported and valued in the school community. The desired outcome was for staff to incorporate diverse cultural perspectives throughout the curriculum through materials used and included topics, so students became culturally aware of the world around them.

Empathy Open Ended Survey

      The researcher secured the required permissions from the district superintendent

to conduct research. Given the superintendent's overarching role in school district

operations and the authority to grant research permissions within the district's

educational framework, the superintendent's permission was imperative. After carefully

examining the purpose and scope of the researcher's proposal, the superintendent

provided the requisite clearance, emphasizing the district's commitment to enhancing

equity, diversity, and inclusion within the educational setting.

The researcher created an open-ended anonymous survey using *Qualtrics* consisting of five

      questions (see Table 4).

Table 4

Qualtrics Empathy Survey Questions

Questions
Describe your experience interacting with students at your school who are from a different cultural background than your own.
What would our organization look like if it included more diverse and inclusive materials?
What would the school gain or lose by being more diverse and inclusive in our teaching practices?
How comfortable would you incorporate new material about people from different backgrounds into your curriculum?
When a sensitive issue of diversity arises in class, how easily can you think of strategies to address the situation? If possible, provide a specific example of how you addressed a diversity issue with students.

      The researcher applied thematic analysis to analyze the data gleaned from the

survey data collected, a technique suited for discerning patterns within qualitative

datasets (Braun & Clarke, 2006). Given the open-ended nature of the questions, the

method allowed for a nuanced exploration of the diverse responses. The intent behind the

thematic analysis was not only to collate responses but also to extract meaningful insights

to inform subsequent phases of the research.

Participants included 11 kindergarten to fifth-grade teachers at two different

school sites. Each school was described as a sister school with the same students and

families shared. The survey respondents comprised two first-grade teachers, one

kindergarten teacher, one first-year teacher in second grade, the research site's ESOL

teacher, one fifth-grade teacher, two school counselors, a librarian, an instructional coach,

and one administrator. Respondents completed the survey independently of the researcher

and other participants. Upon completing the survey, the researcher analyzed the data for

emergent themes.

Analysis Survey Question One. Educators demonstrated a predominant sentiment

of valuing cultural diversity in student interactions. Several respondents cited daily

interactions with students from diverse backgrounds and perceived as both enriching and

educational. A recurrent theme was the emphasis on treating all students with equal

regard, irrespective of the student's cultural background. Many educators expressed an

approach to students uniformly while emphasizing the importance of understanding each

student's distinct culture. Several participants appreciated the chance to learn directly

from students about the cultures, whether acquiring new words from the student's native

languages or gaining insights into the students'' customs and traditions. However, some

educators desired more structured opportunities to explore and understand the students'

cultures. The overall sentiment underscored the educators' commitment to inclusivity and acknowledgment of diverse culture richness in the learning environment.

Analysis Survey Question Two. A collective agreement existed among the focus group participants about the importance of introducing diverse and inclusive materials into the education system. Several educators highlighted the importance of mentor texts to represent a variety of cultural and heritage backgrounds. Incorporating multicultural mentor texts enhanced students' abilities to connect with the narratives portrayed and boost student engagement in learning. Further supporting the participant's viewpoint was the recommendation to celebrate and spotlight students from diverse cultural backgrounds within and with the organization, thereby creating a learning environment inclusive of the diversity of the student body.

Furthermore, participants expressed greater exposure to diverse materials helped students to focus more on the collective group of students' commonalities instead of differences. Additionally, there was a recognized need for professional development for educators, emphasizing supporting students from various cultural backgrounds, especially English Language Learners (ELL). One educator shared a personal experience working with Pakistani families, underscoring the importance of understanding, and respecting cultural nuances when communicating concerns.

From the school librarian's perspective, diverse materials meant having books available in students'' native languages and providing all students free access to essential resources like technology, breakfast, and lunch. Finally, while some educators believed the existing English Language Arts (ELA) curriculum did a reasonable job in terms of diversity, there was a sentiment the current ELA curriculum could be further enhanced by

incorporating more cultural elements into assignments and projects.

Analysis Survey Question Three. In the third survey question, the scholar practitioner sought to learn what schools would gain or lose if teaching practices were more diverse and inclusive. Four of the five responses focused on gains, while one respondent reflected on the challenge of incorporating culturally diverse practices. Respondent One questioned the sensitivity some families might demonstrate toward other cultures due to the experiences, noting a personal experience teaching after the tension surrounding 9/11. Additionally, the teacher expressed concerns related to specific cultures experiencing harassment after a tragic event in society. Other respondents reflected on gaining compassion as a community for others and developing a deeper understanding of students and families. Finally, one respondent noted limitations teachers faced with scripted curricula and a need to move away from barriers to create more meaningful engagement for students to interact with culturally diverse topics.

Analysis Survey Question Four. The focus group participants expressed varied comfort levels when considering including materials about individuals from different cultural backgrounds in the district's curriculum. Several participants leaned towards caution and indicated concerns about the depth of knowledge some teachers possessed and potential sensitivity around topics, especially topics with dark histories or potential for misunderstandings. One educator highlighted a more substantial comfort level with Hispanic cultures due to personal, educational background experiences, but mentioned treading lightly around topics like Martin Luther King, Jr., during Black History Month. There was also a clear sentiment about the district's need for more directive support. While some efforts existed to highlight different cultural months, some educators felt the

lack of a structured approach and the already packed curriculum made the process challenging to weave the topics into teachers' lessons organically. A sentiment shared by newer teachers emphasized the overwhelming nature of adhering strictly to the curriculum, with little room to deviate and incorporate culturally relevant content.

However, educators in the group also conveyed a willingness to adapt and incorporate diverse materials, stating if access to appropriate resources and information was adequate. The respondents' sentiments were rooted in a genuine interest to be informed and prepared, especially for potential questions students might pose. While some hinted at societal pressures and possible confrontations, others were more confident, rating themselves at a seven on a scale of comfort and stressing the importance of thorough research before integrating new topics. A few participants expressed absolute comfort, emphasizing a proactive approach towards inclusivity and diversification in teaching methods.

Analysis Survey Question Five. When confronted with sensitive issues surrounding diversity in the classroom, the teachers in the focus group shared a mixture of feelings and strategies to navigate the situations. Some teachers admitted addressing sensitive issues was challenging, especially given the ever-evolving nuances of cultural awareness. For many teachers, when facing sensitive issues, the strategies employed were grounded in promoting kindness and understanding towards all students, irrespective of backgrounds. A popular method amongst teachers was using read-aloud books to tackle the topic delicately, suitable for students' comprehension level. Some teachers also mentioned seeking the assistance of school counselors to provide tailored interventions or guidance directly to students. Direct engagement with students and families was also

typical, with some teachers mentioning the importance of working with administrators, particularly when language barriers could potentially exacerbate misunderstandings.

However, a few teachers were apprehensive about potential missteps and preferred to defer to higher authorities or administration. The teachers expressed concerns about unintentionally making statements which could be perceived as insensitive, leading to unintended negative implications. Some strategies emphasized capitalizing on the natural curiosity of younger students, focusing on the idea differences made everyone unique. For instance, during holidays like Christmas, some teachers adopted an inclusive approach, allowing students from diverse backgrounds to share cultural celebrations, often culminating in enriching experiences for the entire class.

While many educators expressed confidence in basic strategies, there was an undercurrent of a desire for more professional development and resources to address diversity issues confidently, especially issues laden with potential controversy.

Focus Group

The scholar practitioner chose to conduct two focus groups with various stakeholder populations. The first focus group participants included a school counselor, a building secretary, one parent, and three teachers. The second focus group consisted of two administrators and one instructional coach. The scholar-practitioner conducted focus groups due to the tool's capacity to explore multiple paradigms from selected participants (Morgan, 2005). Participants were selected based on teaching experience and personal experiences known to the scholar practitioner. The first focus group consisted of participants who maintained the following qualifications: one teacher had 17 years of teaching experience across five different grade levels and combined experience between

general education and special education. The participant also had experience teaching in

three different school districts with diverse socioeconomic populations and culturally

diverse student populations; the second teacher had six years of experience teaching in

one grade level at one school; the third teacher was hired as a first-year teacher during the

study year. The teacher's experience during the onboarding process was compared in the

focus group to the second participant to gauge district growth in teacher preparedness

when onboarding in the school district. In addition to the teachers in the focus group, the

school counselor had 20 years of experience of counseling experience in schools, with an

additional five years of experience in the private sector; the building secretary was in

charge of registering new students and met all the research site families; and finally, the

parent participant identified as a Muslim and was the president of the research site's

Parent Teacher Committee.

The second focus group consisted of the principal and assistant principal of the

research site, as well as the instructional coach. The head principal served seven years as

a school administrator, with six years of teaching experience before becoming a principal.

The assistant principal had a special education background but had previously served as

the assistant principal for four years. Finally, the instructional coach had been in the

current position for six years, with 10 years of previous teaching experience in third and

fourth grade.

The participants volunteered to sit down and discuss how the school district

approached diversity and inclusion for students and families. Participants in focus group

one met with the researcher before school in an empty classroom. The second focus

group participants met in the principal's office after school. The scholar practitioner

provided consent forms for the participants to sign and informed the participants of the

audio recording device for transcription purposes only. Participants' privacy was

protected, and the scholar practitioner referred to participants as participants one, two, or

three in the transcript. Each focus group met for approximately 20 minutes. The questions

asked to focus group participants are shown in Table 5.

Table 5

Empathy Focus Group Questions

Questions
How, if at all, did your school embrace different cultural practices?
How did multicultural education practices fit within the scope and sequence of curriculum programs purchased by the school district?
Describe a time, if any, you had experienced working with children from various racial or cultural backgrounds. If able, elaborate on challenges or successes you had working with these children.
What would we have gained or lost by being more diverse and inclusive in our teaching practices?
What positives had parents expressed regarding diversity or cultural awareness in their child's school or classroom?
What barriers or challenges, if any, existed in supporting the professional development of teachers regarding multicultural education practices?

The scholar practitioner selected the program MAXQDA to record and transcribe

the responses and code them for emergent themes, which included professional

development, feelings, teacher understanding, time, curriculum, Americanization, and

lack of acceptance. The scholar practitioner summarized each theme in Table 6.

Table 6

Summarization of Focus Group Themes

Theme	Summary
Professional Development	Teachers felt there was a lack of training and support from the district. Teachers felt that without the proper training, the teachers could not support students in learning. Without proper training, teachers relied on asking administration to guide them.
Feelings	Teachers felt uncomfortable addressing diversity because of a lack of training and fear of offending students or the families. If families were offended, there was no confidence in the district's support.
Teacher Understanding	Teachers felt a lack in knowledge to address diversity or cultural topics. Teachers wanted training because of the anticipated increase in diversity over the subsequent years.
Time	Teachers felt there was not enough time to incorporate diverse topics due to district requirements to teach the curriculum with fidelity.
Curriculum	Teachers felt the district-approved curriculum did not integrate multicultural content often, when incorporated at the surface level. Teachers wanted the district to be more conscious of representing other cultures in the curriculum when purchased by the district.
Americanization	When teachers worked with diverse students, the teachers felt parents often wanted the teachers to downplay cultural heritage in favor of Americanizing the cultural values.
Lacking Acceptance	Teachers had heard students say others would not believe them when the students talked about their culture and expressed not feeling accepted.

Combined Analysis and Summary

The findings of the empathy generators suggested teachers in the school district may benefit from increased training or professional development to improve educators' confidence when approaching diverse topics and in working with diverse student populations. For professional development to occur, however, teachers felt the need in two specific areas: curriculum adopted by the district and time. When considering a new curriculum, individuals required a multicultural lens on diversity awareness. If the material did not reflect the district's diverse students, new challenges occurred for students and teachers to build connections to the topics. Teachers all wanted more time to explore diverse topics of interest to the students or highlight the class community. Time was monopolized currently by ELA and math curriculums which did not promote diversity.

Teachers knowledgeable about inclusive practices developed a level of understanding of the differences and nuances between different cultures and ethnicities and how to integrate inclusive practices into the district-approved curriculum to create multicultural learning experiences within classrooms (Samuels, 2017). Results of a student-focused multicultural learning experience resulted in improved interpersonal relations among students and reduced the risk of interpersonal conflicts due to cultural and ethnic differences (Samuels, 2017). Globalization and the development of new technologies connected people around the globe and shaped classrooms across the country to reflect a multicultural identity (Becirovic & Brdarevic-Celijo, 2018). Expectations were placed on teachers to engage in and utilize teacher competencies to increase multicultural practices while being ready to respond to the complex needs of a

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culturally rich student population within the classroom and school (Blue et al., 2018). In addition to teaching practices, educators, at the time of the study, were also expected to develop an understanding of the distinctions between cultures. Understanding the nuances between cultures or ethnicities advanced interpersonal relationships and potentially reduced conflicts between students from different backgrounds (Blue et al., 2018).

Define Phase

In the design phase, the scholar practitioner coded focus group data from each focus group and analyzed the data in conjunction with the information learned during the Empathy phase to define a focus for improvement at the research site and develop the "How might we?" question. Utilizing the design thinking process, especially in education, emphasized a deep comprehension of the user's needs before constructing potential solutions. To empathize with the key stakeholders and grasp the stakeholder's challenges and aspirations related to DEI, focus group sessions convened, integrating points of view (POVs) from the education community, which included the school counselor, principal, assistant principal, a blend of both experienced and new teachers, and the school secretary. The selection of participants provided unique perspectives and the value the participants' perspectives bring to the educational ecosystem (Kimbell, 2011). The scholar practitioner created a fishbone diagram, empathy map, and story map (see Appendix A) to better define the problem and develop a POV statement.

Emerging from the focus group discussions was a palpable sentiment. The principal highlighted the sporadic nature of cultural events, emphasizing the potential for regular integration. A seasoned teacher lamented the sluggish evolution of the curriculum

and professional development, which seemed misaligned with the changing

demographics of the student body. Echoing the teacher's sentiment, the assistant

principal stressed the district's lackluster prioritization of DEI in professional

development agendas. Newer educators desired more DEI training, feeling inadequately

equipped to engage with a diverse student population. Adding a different dimension, the

school counselor gave feedback from students who felt culturally misunderstood. Both

another teacher and the school secretary accentuated the value of integrating community

and parental insights into the educational framework, emphasizing a more authentic and

inclusive cultural representation (Kouprie & Sleeswijk Visser, 2009).

A need emerged from focus group discussions for a more systemic support system

encompassing professional development, curriculum content, and community

engagement. The stakeholders' feedback resonated with literature stressing the

importance of comprehensive DEI training (Bersin & Enderes, n.d.), an adaptive

curriculum that mirrored students' multicultural realities (Gay, 2002), and the untapped

potential of robust community engagement (Epstein & Sanders, 2006). While each point

of view held significant value, the challenge lay in determining where to direct immediate

attention. Engaging the focus group in a collaborative and iterative prioritization process,

the researcher utilized Sanders and Stappers (2008) to encourage stakeholders to not only

share perspectives, but also to weigh the urgency and each theme.

Through collaborative discussions and deliberations among the stakeholder group,

a consensus began to become apparent and the final problem statement was formulated

using a "How might we . . . I." question: "How might we provide educators with the

knowledge, skills, and strategies necessary to establish culturally responsive and

inclusive learning environments that foster diversity equity, and inclusion in classrooms, so students feel understood and empathetic towards individuals with diverse backgrounds?" The group recognized concentrating on a foundation in professional development would allow educators to be better equipped with the tools and confidence necessary to weave DEI themes into the curriculum and engage the school community more meaningfully. The idea was to create a ripple outcome, where fortified professional development would pave the way for other improvements (Desimone, 2009). The participants agreed strengthening the educators' foundation through professional development was akin to arming educators with the oars before navigating the multicultural rapids (Guskey, 2000, p. 27).

Ideate Phase

The ideation phase of the research was meticulously planned and executed to arrive at potential solutions to the research problem identified during the empathy and problem-defining stages. Having analyzed qualitative data from various methods, such as document analysis, open-ended survey responses, and focus groups, the scholar practitioner identified the overarching problem: the need for educators to enhance the capacity to deliver culturally inclusive teaching practices. The primary question driving the ideation process was, "How might we provide educators with the knowledge, skills, and strategies necessary to establish culturally responsive and inclusive learning environments to foster diversity, equity, and inclusion in classrooms, so students feel understood and empathetic towards individuals with diverse backgrounds?"

The scholar practitioner adopted both convergent and divergent thinking during the ideation process. Initially, the process involved divergent thinking, where stakeholders

were encouraged to generate as many diverse ideas and solutions as possible in response to the formulated question. The scholar practitioner planned an in-person focus group to facilitate expansive brainstorming where participants would share solutions independently conceptualized before the session. During the session, the ideas were recorded on chart paper, fostering an environment where participants felt inspired to discuss and expand on the ideas presented.

Following ideation, a convergent thinking approach was employed. The scholar practitioner narrowed the vast array of solutions to the most viable ones. Participants were allowed to select the three most promising ideas for prototyping and testing. A voting system was utilized, allowing participants to cast votes on the best ideas, subsequently filtering out the most favored solutions supported by the collective.

Key to the ideation process was the involvement of a varied subsection of stakeholders, ensuring diverse perspectives and insights. The scholar-practitioner took the utmost care to facilitate a trusting environment, emphasizing participant anonymity and reiterating the confidentiality measures put in place, as was evidenced in an instance where a focus group participant's concerns about the confidentiality of responses were addressed.

The culmination of the ideation phase was the documentation of potential solutions on anchor chart paper, creating a tangible record (see Appendix B) of the brainstormed ideas generated in response to the pressing need for more culturally inclusive teaching methodologies.

Prototype Phase

In addressing the urgency for more culturally responsive teaching, the prototype

phase was anchored in clear research hypotheses, questions, and defined goals. The

primary hypothesis laid the foundation centered around discerning differences in

diversity, equity, and inclusion competencies among educators pre/post-professional

development. Guided by pertinent research questions and a null hypothesis statement (see

Table 7), such as how teachers leverage concepts from professional development to align

with student demographics and the perceptions of preparedness and efficacy, the project

sought to probe and understand educators' experiences deeply.

Table 7

Null Hypothesis and Research Questions

Null Hypothesis 1	There is no difference in the diversity, equity, and inclusion competencies among the educators pre/post professional development.
Research Question 1	How do teachers in a Title I school utilize the concepts learned in professional development programs, if any application occurs, to increase alignment with student classroom demographics?
Research Question 2	How do teachers describe their level of preparedness to teach in multicultural classrooms pre/post the professional development program?
Research Question 3	How do teachers perceive professional development in diversity and multicultural education?

The inquiries were further supported by prototyping goals to heighten stakeholders'

awareness of multiculturalism, biases, and stereotypes, foster empathy, and ultimately

create a professional development prototype responsive to the research site's diversity

needs.

  With the research anchors in place, the scholar-practitioner conceptualized a

comprehensive professional development plan blending synchronous and asynchronous

approaches with a keen focus on multicultural education. The objective was to immerse

the research site's educators in the scholar practitioner's ongoing studies on diversity,

equity, and inclusion, concurrently introducing practical strategies aligned with a

dynamic student demographic.

  The foundational prototype comprised three distinct components (see Table 8).

The first component utilized asynchronous diversity training on the "Leader in Me"

platform, a tool previously adopted by the district for leadership initiatives. The strategic

integration aimed to provide a familiar, yet nuanced learning experience focused on

diversity and equity. The subsequent component delved into unconscious biases,

facilitated by a structured book study of *The Leader's Guide to Unconscious Bias*," by

Fuller and Murphy, the interactive module combined structured discussions, case studies,

and scenarios to extract critical insights. The capstone component emphasized the

application of learned principles, where the scholar-practitioner handed teachers a

multicultural curriculum, urging teachers to manifest the instructional strategies in real-

world classroom scenarios and subsequently capture the teachers' experiences and

reflections in a digital journal.

Table 8

Prototype Components

	Requirements	Time
Component 1	• Pre/Post Survey • Leader In Me PD Videos (2)	2 hours and 30 minutes
Component 2	• Read *The Leader's Guide to Unconscious Bias* • Attend weekly book study sessions	5 weeks with one hour book study sessions once per week
Component 3	• Implement curriculum unit • Digital weekly reflection journal	5 weeks with 40-minute lessons per day

Stakeholder feedback was pivotal in the refinement process. The scholar practitioner sent an email to stakeholders unveiling the prototype components. Recruitment materials were rolled out to staff at the research site after reaching an initial consensus. Ethical considerations remained paramount; thus, the scholar-practitioner sought informed consent at every participation.

Conclusively, the prototype phase was a meticulous blend of research-supported foundations and iterative processes. Through the framework, the researcher envisioned empowering educators with multicultural tools and cultivating an educational ethos celebrating diversity, so every student felt acknowledged and valued. The endgame was an educational framework mirroring the vibrant diversity of our global society.

Test Phase & Data Analysis

The prototype implementation followed a rigorous process to collect comprehensive data and meaningful analysis. A combined approach utilizing quantitative

and qualitative data analysis techniques was chosen to leverage the advantages of each

method (Creswell, 2009). The scholar practitioner initiated the process by reaching out to

potential participants at the research site through email communication. A convenience

sampling method was employed, targeting 30 teachers for recruitment. With the

facilitation of the research site's administrator, the scholar practitioner procured the email

addresses of all staff members, ensuring a seamless flow of communication. In the end,

15 staff members from support staff, teachers, and administrators participated in the

survey.

Central to the ethical conduct of the research was the informed consent process.

Each recruitment email contained a link directing participants to an informed consent

form hosted on the *Qualtrics* platform and affiliated with Lindenwood University.

Participants accessed the pre-assessment questions after obtaining informed consent.

Upon completing the assessment, participants viewed two 1-hour asynchronous courses

on the "Leader In Me" (LIM) platform, focused on diversity and equity. Notably, the

school district had already secured access to the platform for all staff members. A

designated LIM coach administered the courses.

After completing the courses, participants returned to the *Qualtrics* platform to

complete post-assessment questions, which integrated Likert-style rating scales. The

scholar practitioner selected a *t*-test to analyze the pre/post-self-assessment scores. The

choice of the statistical test was appropriate as the analysis enabled the researcher to

ascertain if a statistically significant difference existed in scores pre-and post-

intervention.

Building upon the teacher's foundational knowledge, the researcher invited participants for further professional development via a five-week book study on *The Leader's Guide to Unconscious Bias: How to Reframe Bias, Cultivate Connection, and Create High-Performing Teams*. The structured book study was designed in four distinct segments, mirroring the book's layout. Integral to the study were the end-of-chapter reflection activities, which participants first tackled independently and then collectively during weekly sessions. Five participants from the asynchronous PD training chose to continue with the book study. With participants' consent, the discussions were audio-recorded, laying the groundwork for subsequent thematic analysis.

In the final phase of the study, participants were presented with the opportunity to translate the new learning into practice. Participants chose to deliver a meticulously designed five-week unit on diversity, equity, and inclusion in the classrooms. Four of the five participants from the book study and asynchronous PD training chose to continue and complete the five-week unit. The scholar-practitioner provided all necessary lesson plans and materials. To capture the results of the intervention, participants maintained an anonymous online journal through *Qualtrics*, documenting reflections on how the professional development influenced or failed to influence instructional delivery.

The heightened emphasis on data protection and confidentiality is worth noting. The scholar practitioner maintained participants' anonymity when personal data, such as email addresses and audio recordings, were collected. All audio recordings underwent a thorough transcription process, after which any identifying information was meticulously removed. All research data, whether survey responses or audio transcripts, was stored securely on Lindenwood's cloud network, accessible only via a password-protected

interface. When reporting results, an alphanumeric coding system (E1, E2, E3) protected participants' identities.

The entire prototype implementation spanned over several weeks, each phase necessitated by the intricate design of the study and the sequential nature of data collection and participant engagement. The aim was to gather a holistic understanding of educators' experiences, from initial exposure to diverse concepts to practical classroom application. The extended time frame and the layered approach provided participants ample opportunities to internalize, reflect upon, and apply the new learning, ensuring the research captured fleeting reactions and deep-seated transformations.

Data Analysis

The research study evaluated professional development related to diversity, equity, and inclusion (DEI) practices among educators. The comprehensive study included three key components: asynchronous PD video with a pre/post-test, a five-week book study, and the implementation of a five-week curriculum unit. The data analysis examined the outcomes of professional development (PD) on teachers at the research site, focusing on diversity, equity, and inclusion (DEI). The goal was to understand how such training influenced teaching practices and preparedness for multicultural classrooms, providing valuable insights for future educational strategies.

The dissertation in practice, characterized by its mixed-methods approach, incorporated both qualitative and quantitative data analysis. For the quantitative aspect, responses from the Likert Scale were systematically coded to facilitate a paired sample *t*-Test. On the qualitative side, the scholar practitioner meticulously transcribed the dialogue from the book study session, utilizing MAXQDA as a tool for conducting

thematic analysis. Additionally, the open-ended survey responses provided by the five

curriculum participants were carefully coded using MAXQDA to identify recurring

themes. The scholar practitioner's thorough process enabled the researcher to extract and

report on key themes corresponding to each research question, ensuring a comprehensive

analysis which integrated both numerical data and narrative insights.

Results

Research Question 1: How do teachers in a Title I school apply the concepts

learned in professional development programs?

In addressing Research Question 1, the scholar practitioner observed a

comprehensive and multifaceted application of diversity, equity, and inclusion (DEI)

concepts. The teachers, having participated in PD and a book study, demonstrated a keen

integration of DEI principles into the curriculum, reflecting the cultural diversity of

students. The integration was a direct result of heightened self-awareness and reflection,

encouraging teachers to actively recognize and address unconscious biases.

A significant aspect of the curriculum application was the emphasis on empathy

in teaching. Teachers engaged students in activities designed to foster understanding and

respect among diverse groups. The approach not only promoted a cohesive classroom

environment but also underscored the importance of emotional intelligence in handling

DEI-related topics. The teachers adeptly navigated the challenges of implementing DEI

initiatives, displaying a deepened understanding of the complexities involved in creating

an inclusive classroom.

Within the five-week curriculum unit, the scholar practitioner analyzed journal

responses from teachers' post-implementation, uncovering insights into the application of

the PD and book study learnings (see Table 9). Teachers reported a notable increase in awareness of diversity and a shift towards culturally responsive pedagogy and employed strategies like integrating real-life examples and storytelling, making abstract DEI concepts accessible to students. The practices, aligning with experiential learning theories, also addressed challenges in managing diverse student needs through innovative instructional strategies like role-playing and project-based learning (Lloyd et al., 2021).

Table 9

Sample of Curriculum Study Journal Entries from Week 2

Week 2	Participant 1 Response	Participant 2 Response	Participant 3 Response
How have you seen your students' understanding of diversity, equity, and inclusion grow this week?	There has been a noticeable shift in my students' perceptions of diversity. Activities like sharing examples of their own culture and discussing the Massi kids' life in Kenya have broadened their worldview. They now show more curiosity and respect for cultures different from their own, understanding that diversity is not just about differences, but also about shared human experiences.	The unit on culture has significantly enhanced my students' understanding of diversity. They are beginning to grasp the concept of equity – that everyone's culture and background is valuable and should be treated with respect. They've also started to understand inclusion, as evident in their more thoughtful interactions with each other.	This week has been transformative in terms of my students' understanding of diversity, equity, and inclusion. Through the various activities, especially the video on the life of a Massi kid in Kenya, students began to appreciate and respect differences in cultures. They were able to articulate how diversity enriches our world and showed increased empathy towards people from different cultural backgrounds.
Which strategies or teaching methods have	Encouraging students to explore and present on different cultures proved extremely	Interactive storytelling and role-playing were highly effective. By reading and discussing	The most effective strategy was the interactive and hands-on activities,

proven effective this week in teaching these concepts, and why?	effective. It enabled them to take ownership of their learning and respect diverse perspectives. The use of multimedia resources like videos and interactive crayons also kept the students engaged and made abstract concepts more relatable.	books like "Bellen Woodard: More Than Peach," students developed a deeper understanding of cultural diversity and individual uniqueness. Hands-on activities like drawing their own portraits using multicultural art supplies significantly contributed to their understanding and appreciation of diversity in a very personal way.	such as identifying and naming their own skin shades. It made the concept of diversity tangible and personal for them. Additionally, group discussions and presentations provided a platform for students to voice their thoughts and learn from each other, fostering a classroom environment of mutual respect and understanding.

Educators observed increased student participation and engagement, especially in activities which allowed exploration of personal identities and an understanding of biases. The activities resonated with educational theories advocating for student agency and voice. The educators' commitment to continuous reflection and the integration of the DEI practices into future teaching endeavors highlighted a dedication to sustaining an environment which valued diversity (see Table 10).

Table 10

Sample of Curriculum Study Journal Entries from Week 4

Week 4	Participant 1 Response	Participant 2 Response	Participant 3 Response
How have your own perspectives or attitudes shifted as a result of teaching this unit?	Teaching this unit has profoundly shifted my perspective on how early children form biases and stereotypes'. I've become more aware of the subtle ways in which societal	This unit has deepened my understanding of how gender stereotypes and biases are ingrained from a young age. It has made me more conscious of my role in shaping students'	Teaching this unit has shifted my attitude towards a more proactive approach in discussing gender stereotypes with young student'.

norms influence young minds. This awareness has made me more vigilant in choosing materials and language that promote inclusivity and challenge stereotypes.	perceptions and attitudes towards gender roles'. I've learned the importance of questioning and challenging my assumptions in my teaching practice.	I've realized that even at a young age, students are aware of and influenced by gender norms, and' it's crucial to address these topics openly.

Post-curriculum reflections indicated the intervention was worked in enhancing teachers' understanding and application of DEI principles. However, there was a recognition of the need for ongoing professional development and suggested while a single curriculum unit provided insight to practice, the single curriculum was part of a broader, ongoing process of learning and growth in multicultural education, echoing the continuous improvement cycle in educational research.

In conclusion, the curriculum unit played a role in advancing educators' DEI competencies, fostering a more empathetic, inclusive, and diverse classroom culture. The book study was pivotal in the process, deepening educators' understanding and reflection on DEI. However, the research faced challenges, including a small sample size, potential statistical limitations, and the need for continuous dialogue and adaptation in teaching practices. The challenges highlighted the importance of ongoing reflection and methodological flexibility in integrating DEI principles in educational settings.

Research Question 2: How do teachers describe a level of preparedness to teach in multicultural classrooms pre/post the professional development programs?

In exploring Research Question 2 regarding teachers' self-perceived preparedness to teach in multicultural classrooms before and after professional development (PD) programs, the scholar practitioner noted significant shifts. Prior to the PD, teachers in

Title I schools expressed a lack of confidence in addressing the diverse needs and backgrounds of the educator's students. The lack of confidence was particularly evident in teachers' approaches to integrating multicultural content into curriculum and managing the dynamics of culturally diverse classrooms. However, following the PD, a discernible improvement in teachers' confidence and competence in the specific areas emerged. The positive change was attributed to the knowledge and skills gained from the PD programs, which comprised an asynchronous video series and an in-depth book study.

Teachers reported significant growth in several areas, including heightened self-awareness regarding biases, a deeper appreciation for classroom diversity, and the implementation of more inclusive teaching practices. The shift towards more empathetic and culturally responsive teaching led to an increase in student engagement and understanding across diverse cultural groups. Additionally, the PD programs equipped teachers with practical methods for incorporating diverse materials and perspectives into practice, thereby making the curriculum more inclusive and representative of the student population. Teachers also noted an increased commitment to continuous dialogue about diversity and inclusion.

The transformation in teaching preparedness was enhanced by a five-week book study on *The Leader's Guide to Unconscious Bias*, by Fuller and Murphy. The additional component of the study allowed for an extended exploration and deeper understanding of DEI topics, fostering critical reflection and discussion among participants (Krishnan et al., 2009). The scholar practitioner's thematic analysis of the book study revealed several key themes relevant to the professional development needs of educators in the realm of diversity and inclusion (see Table 11).

Table 11

Themes from Book Study Analysis

Theme	Analysis
Self-Awareness and Reflection	There's a strong emphasis on the importance of teachers recognizing their own biases. Teacher 2's use of a personal journal for reflection is a prime example of this. This theme underscores the need for ongoing self-examination to understand and mitigate unconscious biases in educational settings.
Diversity and Inclusivity in Teaching Methods and Materials	Teachers discussed incorporating diverse materials and methods into their curriculum, as highlighted by Teacher 3. This theme reflects the effort to create a more inclusive and representative educational environment, acknowledging the diverse backgrounds of students.
Student Engagement and Empathy	Teacher 4 and Teacher 5 talked about engaging students in activities that promote understanding and empathy among diverse groups. This theme emphasizes the role of empathy in education, particularly in understanding and appreciating diverse perspectives.
Challenges and Conflicts in Implementing Diversity Initiatives	The discussions also highlighted the challenges and conflicts that arise when implementing these initiatives, such as the risk of sidelining certain groups or handling sensitive issues. This theme illustrates the complexities and nuances involved in fostering an inclusive classroom environment.
Parent and Community Involvement	Teacher 3's suggestion to involve parents and guardians indicates the recognition of the broader community's role in education. This theme suggests that educating and engaging the wider community is crucial for supporting diversity and inclusion efforts in schools.
Professional Development and Collaboration	The principal's commitment to organizing training sessions and the suggestion of forming committees or working groups show the importance of ongoing professional development and collaboration among educators. This theme stresses the need for continuous learning and collective effort in addressing unconscious bias.
Emotional Impact and Intelligence	The emotional aspects of discussing bias and diversity, as shared by the teachers, and noted by the principal, underline the emotional labor involved in these discussions. This theme highlights the need for emotional intelligence and support systems to navigate these sensitive topics.

Student Empowerment and Voice	Teacher 4's idea of student-led initiatives and Teacher 5's use of group reflections demonstrate an emphasis on empowering students and valuing their voices. This theme reflects the importance of student participation in shaping an inclusive educational environment.
Continuous Dialogue and Feedback	The commitment to regular discussions and feedback, as mentioned by Teacher 2 and others, shows the recognition that addressing unconscious bias is an ongoing process. This theme underscores the importance of open communication and adaptability in educational practices.
Personal Commitment and Growth	The final reflections from each participant, including their personal commitments, highlight the theme of individual responsibility and growth in addressing unconscious bias. This theme signifies the personal dedication required from educators to effect change in their teaching practices and school culture.

Overall, the themes illustrated a comprehensive and multi-faceted approach to understanding and addressing unconscious bias in education, emphasizing self-awareness, inclusivity, empathy, community involvement, professional development, emotional intelligence, student empowerment, continuous dialogue, and personal commitment.

Research Question 3: How do teachers perceive professional development in diversity and multicultural education? To answer the research question the scholar practitioner analyzed teachers' perceptions in Title I schools to understand how teachers viewed such training. Post-participation in the professional development program, which included an asynchronous video series and a comprehensive book study, teachers exhibited a more positive outlook on the importance and application of diversity training in the participant's professional practice.

Teachers acknowledged the critical role of professional development in enhancing understanding and skills in dealing with a diverse student population and appreciated the depth of knowledge and practical strategies provided by the professional development program, crucial in preparing each participant to address multicultural education's complexities. Additionally, the program's focus on real-world applications and classroom scenarios was particularly valued, to help bridge the gap between theory and practice. Moreover, educators recognized the importance of continuous learning and professional growth in diversity and multicultural education. Teachers expressed a desire for ongoing training and support in specific areas, indicating the one-off training sessions were insufficient to address the challenges and dynamics of multicultural classrooms fully.

The book study was a highly regarded component of the prototype for facilitating deeper reflection and discussion among educators. Teachers found exploring literature on diversity and inclusion allowed for engagement in meaningful dialogues, shared experiences, and time to learn from each other. Participants viewed a collaborative learning environment fostered by the book study as instrumental in promoting a more inclusive school culture. Educators also emphasized the emotion and intelligence in discussions around bias and diversity. The teachers felt professional development in research focused areas required cognitive understanding and emotional readiness to engage with sensitive and complex topics. The professional development program provided a safe space for the discussions, which was essential in developing a more empathetic and understanding approach toward students from diverse backgrounds.

The study revealed teachers perceived professional development in diversity and multicultural education as essential for increasing competencies in creating inclusive and

equitable learning environments. Teachers recognized the value of such training in improving teaching practices and fostering a school culture responsive to the diverse needs and backgrounds of all students.

Null Hypothesis: There is no difference in the diversity, equity, and inclusion competencies among the educators pre/post professional development.

Statistical analysis, including bootstrap paired sample *t*-tests, revealed significant changes in educators' pre- and post-professional development intervention competencies. The mean differences in responses indicated a statistically significant increase in DEI understanding and application. The increase in DEI understanding suggested the PD program made a positive difference in the educators' skills and perspectives regarding diversity and equity in the classroom.

In the study assessing the effect of an asynchronous PD on DEI, the testing process involved distinct steps to evaluate the success of the program. The scholar practitioner hypothesized a possible difference pre/post evaluating an asynchronous professional development (PD) program on diversity, equity, and inclusion competencies among educators. A mixed methods design was used to collect and analyze the data collected. Initially, the scholar practitioner distributed pre- and post- assessment surveys to participants using the *Qualtrics* platform. The surveys were designed to capture the participants' perceptions and competencies regarding DEI both before and after undergoing the PD program. The responses were structured using a Likert scale system, allowing participants to rate the level of agreement or disagreement with various statements related to DEI competencies (Creswell, 2009). The scale also provided a quantifiable measure of the changes in participants' attitudes and understanding. After

collecting the survey data, the scholar practitioner followed a detailed codebook (see Appendix C) to interpret the Likert scale responses accurately. The crucial step in the testing process was the application of a *t*-test with bootstrapping. The scholar practitioner used paired sample *t*-tests to compare the mean scores of participants' competencies before and after the PD program, providing a statistical basis to determine if the program led to significant changes in competencies.

The justification for using bootstrapping alongside *t*-tests was twofold. First, bootstrapping did not assume the data were normally distributed, which was a common assumption for the validity of *t*-tests (Erceg-Hurn & Mirosevich, 2008). Bootstrapping was particularly useful when dealing with small sample sizes or when the sample distribution was unknown or expected to deviate from normality (Wilcox, 2001). By resampling the data with replacement to create numerous simulated samples, bootstrapping generated an empirical sampling distribution, provided more accurate confidence intervals and *p*-values for the test statistics (Keselman et al., 2008).

Second, bootstrapping allowed for a non-parametric approach to hypothesis testing (Keselman et al., 2008). When the assumption of parametric tests similar to a *t*-test became potentially violated, bootstrapping provided a more flexible and robust alternative relying less on assumptions and more on the actual data (Erceg-Hurn & Mirosevich, 2008). Bootstrapping enhanced the validity of the conclusions drawn from the statistical tests, mainly when the sample size was small, or the data were skewed (Wilcox, 2001).

Thus, the scholar practitioner's combined use of *t*-tests and bootstrapping offered a comprehensive data analysis approach. The *t*-tests provided a traditional method for

detecting mean differences while bootstrapping added a layer of robustness to the results, ensuring the findings were not artifacts of assumption violations (see Table 12) (Erceg-Hurn & Mirosevich, 2008). The methodological rigor employed increased confidence in the study's finding the PD program enhanced the diversity, equity, and inclusion competencies of the participants.

Table 12

Bootstrap Results for Paired Sample Test

Pairs		M	Bias	Std. Error	Sig (2-tailed)	BCa 95% Confidence Interval Lower	Upper
Pair 1	Pre-Post	-1.067	.002	.304	.003	-1.533	-.533
Pair 2	Pre-Post	-.933	-.002[b]	.197[b]	<.001[b]	-1.400[b]	-.533[b]
Pair 3	Pre-Post	-1.133	.005	.226	<.001	-1.533	-.733
Pair 4	Pre-Post	-1.000	-.001[b]	.166[b]	<.001[b]	-1.333[b]	-.733[b]
Pair 5	Pre-Post	-1.067	.001	.177	<.001	-1.400	-.733
Pair 6	Pre-Post	-.667	-.006	.153	.002	-.867	-.467
Pair 7	Pre-Post	-1.067	.002	.223	<.001	-1.533	-.600
Pair 8	Pre-Post	-.733	.002	.201	.006	-1.200	-.267

Note. [a] Unless otherwise noted, bootstrap results are based on 2,000 bootstrap samples. [b] Indicates bootstrap results are based on 1,999 samples.

For the first measure (Q1DIFF), the mean difference between pre-and post-test scores was -1.067, with the bootstrap 95% confidence interval ranging from -1.533 to -0.533, indicating a statistically significant decrease (p < .001, two-tailed). The paired samples *t*-test also revealed a significant decrease, with a mean difference of -1.067 (SD = 1.223), $t(14) = -3.378$, $p < .005$, two-tailed. The results suggested the scholar practitioner can reject the null hypothesis for Q1DIFF.

Similarly, for the second measure, Q2DIFF, the bootstrap analysis showed a mean difference of -0.933 with a 95% confidence interval from -1.400 to -0.533, which was

significant ($p < .001$, two-tailed). The paired sample *t*-test confirmed the finding with a mean difference of -0.933 (SD = 0.799), $t(14) = -4.525$, $p < .001$, two-tailed. Thus, the null hypothesis for Q2DIFF was rejected.

The process was repeated for additional questions (Q3DIFF through Q8DIFF), each showing significant mean differences, suggesting changes in participant responses post-PD. The bootstrap confidence intervals supported the results, with lower bounds below zero and upper bounds which did not encompass zero, indicating significant changes. For Q3DIFF and Q4DIFF, the bootstrap analyses resulted in *p*-values less than .001, indicating the null hypotheses for the measures were rejected.

Q5DIFF and Q6DIFF also showed significant mean differences with bootstrap *p*-values less than .001 and .002, respectively, allowing for rejecting the null hypotheses. For the final measures (Q7DIFF and Q8DIFF), the bootstrap results yielded significant findings ($p < .001$ and $p = .006$, respectively), leading to the rejection of the null hypotheses.

While the bootstrap paired samples *t*-test results indicated significant findings, the scholar practitioner wanted to acknowledge several statistical limitations regarding the interpretation of the data. The sample size (n = 15) was relatively small, which limited the generalizability of the findings to a larger population. Small sample sizes did not capture the full range of response variability and could increase the risk of Type II errors (failing to reject a false null hypothesis).

Furthermore, the assumption of normality was a critical consideration in *t*-tests. While bootstrap methods offer an estimation technique which does not assume any level of normality, as pointed out by Gignac (2019, C6.21), the reliability of the original paired

sample *t*-test could be compromised when the assumption of normality is violated. This potential is underscored by the observed skewness and kurtosis values in the descriptive statistics. Non-normality can lead to biased standard errors and alter confidence intervals and *p*-values.

Outliers could have significantly changed the mean and standard deviation, potentially distorting the *t*-test results. While bootstrap methods helped mitigate the influence of outliers by resampling the data, the scholar practitioner carefully considered extreme values when interpreting the results. Conducting multiple *t*-tests increased the risk of Type I errors (false positives). Without correction, the more tests performed, the greater the chance of finding at least one significant result by chance. Although not mentioned in the study results, if multiple comparisons occurred, techniques, such as Bonferroni correction might be necessary to adjust the significance levels. Finally, the PD program's learning environment, participant engagement, and facilitation varied and influenced the outcomes. The noted contextual factors were challenging for the scholar practitioner to quantify and control for in statistical tests but could have altered the results.

Acknowledging the limitations was crucial for a nuanced understanding of the study's findings. Future research should consider the above mentioned factors and incorporate larger sample sizes, robustness checks for outliers, and adjustments for multiple comparisons to strengthen the validity and reliability of the results.

In summary, the asynchronous PD program demonstrated a statistically significant outcome on participants' understanding of diversity, equity, and inclusion concepts, as evidenced by the pre-and post-test score differences. The consistent

significance across the measures and the robustness of the bootstrap results, which did not rely on the assumption of normality, provided strong support for the efficacy of the PD intervention. Therefore, the researcher rejected the null hypothesis of no change for all measures examined and accepted the alternative hypothesis and concluded the asynchronous PD program led to significant changes to participants' responses.

Despite the challenges, the research provided valuable insights into how PD programs and thematic book studies can enhance educators' competencies in multicultural education. The findings suggested such interventions can significantly lead to a positive change in an educators' abilities to create inclusive and equitable learning environments. However, the scholar practitioner recommended further consideration of the limitations, such as sample size and statistical assumptions, to ensure the robustness of similar future studies.

For those looking to replicate or build upon the study in different contexts, the scholar practitioner recommended larger sample sizes, robustness checks for statistical assumptions, and incorporating diverse teaching and learning methods to address the complex needs of a multicultural student population. Additionally, fostering an environment of continuous learning and feedback can help successfully implement and sustain the changes such interventions bring about.

Summary

In the study, the scholar practitioner researched the application of professional development (PD) programs in a Title I school setting through a comprehensive analysis of how teachers applied the concepts learned, teacher's level of preparedness to teach in

multicultural classrooms, and teacher's perceptions of professional development in diversity and multicultural education.

For Research Question 1, which focused on applying learned concepts, teachers in Title I schools demonstrated integration of diversity, equity, and inclusion (DEI) concepts into curriculum and teaching practices. The professional development program, which included an asynchronous video series and a comprehensive book study, raised teachers' self-awareness about individual biases and enabled the participants to implement empathetic and inclusive teaching methods. Teachers navigated the challenges of implementing DEI initiatives with a deeper understanding of the complexities involved, thus fostering a more inclusive classroom environment.

Addressing Research Question 2, the study found teachers reported a substantial increase in preparedness to teach in multicultural classrooms following the professional development programs. Initially, many educators experienced uncertainty in addressing the diverse needs of the students. Post-professional development, teachers reported enhanced confidence and competence attributed to the practical knowledge and skills gained from the new learning. The shift became marked by improved self-awareness, appreciation of diversity, and the implementation of inclusive teaching practices.

Regarding Research Question 3, teachers perceived professional development in diversity and multicultural education as crucial for enhancing teaching competencies in creating inclusive learning environments. Teachers valued the depth of knowledge and practical strategies provided by the professional development program, emphasizing the importance of ongoing training and support. Teachers particularly appreciated the book

study component for facilitating deep reflection and collaborative learning among educators.

Throughout the study, the scholar practitioner noted several challenges and limitations. Challenges included the relatively small sample size, potential violation of normality in statistical tests, homogeneity of variance, the influence of outliers, and the necessity of multiple comparisons. Limiting factors underscored the importance of considering such limitations in future research to strengthen the validity and reliability of the results.

In conclusion, the developed prototype significantly increased educators' understanding and application of DEI concepts. The findings supported the efficacy of the professional development intervention, suggesting similar programs in like contexts could significantly enhance teachers' abilities to create inclusive and equitable learning environments in multicultural educational settings. However, the study also highlighted the need for ongoing learning, reflection, and adaptation in teaching practices to sustain the changes.

Chapter Four: Critical Analysis – Integration into Practice

Critical Analysis

The critical analysis of using design thinking to address the problem of practice in the study revealed several key insights. Design thinking, a solution-focused approach which emphasizes understanding users' needs and creatively developing solutions, was employed to enhance diversity, equity, and inclusion (DEI) competencies among educators in Title I schools through professional development (PD) programs (Norman, 2013). Design thinking in the study's context involved empathy, defining, ideating, prototyping, and testing. Initially, understanding the educators' needs and perspectives was crucial.

The empathy phase informed the subsequent stages, leading to developing a professional development program tailored to address specific challenges identified in Title I schools. The iterative nature of design thinking allowed for refinements based on feedback and evolving insights (Carlgren et al., 2016). The PD program's positive outcomes, as evidenced by the significant changes in DEI competencies post-intervention, aligned with current literature underscoring the importance of continuous, reflective, and context-specific professional development for teachers (Darling-Hammond, 2007; Guskey, 2002). The study corroborated findings that practical professional development enhanced teacher efficacy and improved student outcomes, particularly in multicultural and diverse educational settings (Desimone, 2009).

The prototype consisted of an asynchronous PD program complemented by a book study. The scholar practitioner employed a mixed-methods approach to evaluating the prototype. The scholar practitioner used bootstrap paired-sample t-tests to

quantitatively analyze the data, revealing significant improvements in DEI competencies among the participants. The substantial enhancement in competencies allowed for rejecting the null hypothesis, suggesting the prototype achieved the intended outcomes.

Additionally, the scholar practitioner gathered qualitative data to understand better the prototype's effect on teacher competencies in DEI methods and practices. The process included analyzing participant journal responses following the curriculum unit and feedback and reflections from the book study. The qualitative insights offered a deeper perspective into how participants applied the DEI concepts learned within professional environments. The journal responses highlighted real-world application and integration of the concept embedded in the PD and book study into the participants' daily practices and decision-making processes. The combination of quantitative results and qualitative feedback thus painted a comprehensive picture of the prototype's ability to enhance the DEI competencies and the practical application of the skills among participants.

The outcomes demonstrated the prototype program increased the educator's DEI competencies. Educators reported increased preparedness to teach in multicultural classrooms and a more positive perception of professional development in diversity and multicultural education. The results were consistent with literature emphasizing the role of targeted professional development in improving teacher preparedness and attitudes toward diversity (Gay, 2010; Ladson-Billings, 1995).

While the design thinking approach was influential in developing a relevant PD program, the research encountered barriers such as sample size limitations and potential violations of statistical assumptions. The limitations necessitated a cautious interpretation

of the results and suggested the need for further research with larger samples and more

robust statistical methods. In critically analyzing the study, the scholar practitioner

identified several key questions which remained unanswered, paving the way for future

research.

One question focused on how the long-term positive outcome of the PD program

may manifest in educators' practice and student outcomes. The question probed the

sustainability and lasting outcomes of the PD program. While observing immediate

improvements in DEI competencies, the scholar-practitioner recognized the crucial need

to explore how the changes may endure over time and translate into tangible benefits in

the classroom. The scholar practitioner might also investigate further whether the

educators continued to apply the learned concepts consistently and the possible

relationship to student engagement, learning outcomes, and the overall classroom

environment.

A second question pondered what specific elements of the PD program were most

influential in enhancing educators' understanding and application of DEI principles.

Understanding specific components of the PD program could guide future refinements

and developments. The scholar practitioner's inquiry delved into whether certain aspects,

such as the asynchronous learning modules, book study discussions, or reflective

journaling exercises, contributed at a higher rate related to the observed improvements.

Such insights can inform the future design of more targeted and efficient PD programs.

Finally, the scholar practitioner considered how individual differences among

teachers, such as background, experience, and prior exposure to DEI concepts, influenced

the outcomes of the PD program. The researcher's question explored the role of

individual variability among educators in the PD program's outcome. Recognizing educators come from diverse backgrounds and have varying levels of familiarity with DEI concepts, the scholar practitioner might examine how specific differences alter the assimilation and application of the training. Understanding the nuances could assist in tailoring the PD program to meet educators' diverse needs better and maximize positive outcomes.

The questions noted highlight areas for further investigation and underscore the scholar practitioner's commitment to continual learning and improvement in the pursuit of DEI practices in education. Addressing the queries in subsequent studies could contribute significantly to multicultural education and developing more inclusive and equitable teaching practices.

The study offered valuable insights into using design thinking to develop professional development programs in multicultural education and the positive outcomes highlighted the potential of tailored PD programs to enhance educators' DEI competencies. The scholar practitioner recommended future studies might explore more extensive, more diverse samples and employ longitudinal designs to assess the long-term impact of such interventions. In summary, the application of design thinking in the study provided a structured yet flexible framework for addressing the complex issue of enhancing DEI competencies among educators. The findings contributed to the growing body of research on professional development in education, specifically in the context of diversity and inclusion.

Integration into Practice

The scholar practitioner critically reflected on the creative problem-solving process, yielding valuable insights for future researchers in similar roles or contexts facing comparable challenges. Implementing a professional development program for diversity, equity, and inclusion (DEI) in a Title I school setting revealed positive outcomes and learning opportunities. Using a multifaceted approach, combining asynchronous learning, book studies, and teachers' praxis through a curriculum unit improved DEI competency. Challenges were encountered, such as limited sample sizes and potential statistical limitations, highlighting the need for broader and more diverse sample sizes and possibly longitudinal studies for more comprehensive insights (Wang et al., 2023).

Considering the experiences, integrating a PD program into the current educational context appeared promising, yet room for improvement existed. Revisiting the ideation and prototyping stages of the design thinking process could lead to developing new, refined approaches based on testing results. The principle of continuous iteration was crucial in design thinking and can lead to more positive solutions (Hastings 2018e).

Transformational leadership was crucial in proposing and implementing changes like the DEI-focused PD program. Leaders within similar contexts need to understand the dynamics of leading organizational change, which included inspiring and motivating staff, fostering an environment of innovation and creativity, and communicating the vision for change (Bakker et al., 2023). Before implementing a solution, leaders needed to know the organization's readiness for change, assessing resources and staff attitudes

(Henricks et al., 2020). During the implementation, maintaining open lines of communication, providing support, and addressing concerns were vital (Henricks et al., 2020). After the implementation, leaders should focus on sustaining the change, gathering feedback, and making necessary adjustments (Bojovic & Jovanovic, 2020).

The scholar practitioner's study offered practical insights for leaders and educators aiming to address similar challenges. The experiences underlined the importance of a comprehensive approach to PD, the need for ongoing evaluation and adaptation of solutions, and the critical role of transformational leadership in successful organizational change. The insights provided by the researcher can guide others in enhancing DEI in educational settings, contributing to the broader goal of creating inclusive and equitable learning environments ranging from kindergarten to high school.

The scholar practitioner recommended implementing an asset-based approach within multicultural professional development for middle school and high school educators and extending training to involve parents. An asset-based approach would require nuanced and inclusive strategies. The researcher's methodology emphasized recognizing and valuing rich cultural backgrounds and strengths students bring to the classroom setting (Hollar, 2015). To embed an asset-based approach, educators needed to first undergo training to deepen understanding and appreciation of students' diverse cultural assets. Such PD sessions explored cultural competence and strategies for fostering an inclusive classroom environment (Ylimaki & Brunderman, 2021).

Central to an asset-based approach is the empowerment of educators to identify and harness the diverse strengths and talents of students. The empowerment could manifest in classroom activities designed to allow students to individual cultural

knowledge, thereby validating backgrounds as integral to the learning process (Ylimaki & Brunderman, 2021). Beyond the classroom, the strategy extended to engaging parents and the community by hosting forums and workshops where cultural practices and stories were shared and celebrated, enriching the educational tapestry, and strengthening school-community bonds (Hollar, 2015). A critical component of the asset-based PD involved integrating multicultural content across the curriculum, ensuring the PD reflected the diversity of the student body. The integration fostered a learning environment where all students saw individual cultures represented and valued. Moreover, collaborative projects leverage varied perspectives and strengths of students to promote understanding and appreciation of diversity, while building essential social skills (Ylimaki & Brunderman, 2021).

Ongoing feedback and reflective practices were vital, with regular dialogues among educators, students, and parents to assess the strength of multicultural initiatives and identify opportunities for improvement (Ylimaki & Brunderman, 2021). Additionally, offering parallel PD opportunities for parents on diversity, equity, and inclusion amplified the efforts, creating a cohesive community dedicated to fostering an inclusive educational environment (Hollar, 2015). Through concerted efforts, an asset-based approach transformed multicultural PD for educators and involved parents in meaningful ways, thereby enhancing the educational experience for students by celebrating and leveraging diverse cultural identities.

Conclusion

In concluding the dissertation in practice, reflections turn to the opening paragraphs, which emphasized the critical need for diversity, equity, and inclusion (DEI)

in education in response to the growing diversity of student populations globally. The scholar practitioner's study explored the multifaceted dimensions of multicultural education outlined by Banks (1993) and the vital role of professional development in equipping educators with the necessary skills and understanding to create inclusive and equitable learning environments.

The journey of the researcher reaffirmed the notions presented by Gay (2018) and the OECD (2019) regarding the importance of DEI in educational settings. The findings underscored when thoughtfully designed and implemented, professional development programs can significantly enhance educators' abilities to address the diverse needs of students. As observed in the study, incorporating asynchronous professional development, book studies, and reflective practices in a real-world classroom setting resulted in positive change in elevating teachers' competencies in multicultural education. However, the study also illuminated challenges, especially in the implementation and the constraints posed by limited sample sizes and potential statistical limitations. The scholar practitioner experienced valuable learning for future endeavors in similar contexts, highlighting the need for continuous adaptation and improvement in professional development practices.

The researcher's examination of multicultural education and DEI practices aligned with Casto (2019) and Cerna et al. (2021), who stressed the significance of education in our interconnected and globalized world. Challenges in globalization only amplified the need for comprehensive multicultural education, which integrated diverse content and cultivates awareness, reduced prejudice, practiced equity in pedagogy, and empowered educational cultures and structures.

In conclusion, the scholar practitioner's study contributed to the ongoing discourse on multicultural education, the professional development of educators and reinforced the scholar practitioner's understanding of educational practices in a diverse world required a continuous commitment to learning, adaptability, and a deep understanding of the complexities of multicultural societies. The journey did not end here; the design thinking process served as an ongoing process of growth, learning, and adaptation to meet the ever-evolving needs of diverse student populations in a globalized world.

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Appendices

Appendix A: Empathy Stage Sample Qualtrics Survey and Interview Questions,

Fishbone Diagram, and Story Map

Possible focus group questions for Administrators, Curriculum Coordinators, and teachers:

- How, if at all, does multicultural education practices fit within the scope and sequence of current curriculum programs purchased by the school district?
- Describe a time, if any, you experienced working with children from various racial or cultural backgrounds. If able, elaborate on challenges or successes working with these children.
- What concerns, if any, have parents expressed regarding diversity or cultural awareness in their child's school or classroom?
- What positives, if any, have parents expressed regarding diversity or cultural awareness in their child's school or classroom?
- What barriers or challenges, if any, exist in supporting the professional development of teachers regarding multicultural education practices?

Possible focus group questions for parents:
- How, if at all, does your school embrace different cultural practices?
- Describe a time, if any, your child experienced diverse curriculum materials representative of different cultures or races. If applicable, how did your child's experience effect their ability to connect with the lesson materials and overall goal?
- What concerns as a parent, if any, do you have regarding diversity or cultural awareness in your child's school or classroom?
- What successes as a parent, if any, have you experienced regarding diversity or cultural awareness in your child's school or classroom?
- What barriers or challenges, if any, exist in supporting your student as they navigate racial or cultural bias?

Possible open-ended survey questions for teachers:

- Describe your experience interacting with students at your school from different cultural background than your own.
- What would our organization look like if it included more diverse and inclusive materials?
- What would we gain or lose by being more diverse and inclusive in our teaching practices?
- How comfortable would you feel incorporating new material about people from different backgrounds into your curriculum?

- When a sensitive issue of diversity arises in class or in the school, how easily can you think of strategies to address the situation? Can you give a specific example of how you addressed a diversity issue with students?
-

Fishbone Diagram

Fishbone Diagram for Barriers to Teachers Using Diversity and Inclusion Practices

Leadership   Integration   Prioritization

D&I integration is not a priority standard.

Policy enforcement is inconsistent from school to school

Variation in awareness and practices.

District provided materials lack diversity, must teach with district approved curriculum.

D&I is not seen as a district priority across all staff members.

Board members are not held to being transparent with reporting on bullying due to diversity.

Past attempts have been viewed as a one and done movement.

Lack of training among teachers to include D&I practices.

Bullying incidents are not taken seriously by Board members.

There is one Diversity coordinator for the district.

Insufficient diversity and inclusion (D&I) training sets leaders up for failure.

D&I activities lack structure.

No team to support Diversity coordinator.

Execution can look messy, leads to behavior concerns.

D&I training requirements are not part of Professional Development offerings.

No one empowered to lead D&I training.

Curriculum for D&I training not established.

Poor Organizational and Diversity Inclusion

Lack of follow up to refresh training.

Employees unclear how FZSD defines diversity.

Leadership is not reflective of diverse population.

Past D&I training are ineffective.

Communication from diversity coordinator is not consistent.

Parents are hesitant for students to engage in some controversial topics.

Training is optional.

Diversity tools are share reactively, not proactively.

Employees unaware of diversity policies.

Not all staff feel students are mature enough to handle some topics.

Not enough staff participate in D&I training when offered in the past.

Diversity training is not included in onboarding new staff.

Too few opportunities to stray from district curriculum.

FZSD Staff lacks overall training to sustain D&I practices.

Diversity conversations have only focused on race

Training   Communication   Engagement

Story Map

Story Map

End users expressed a desire to be more culturally responsive in their classrooms. To achieve this, staff needs training on how to integrate multicultural practices into district policies and procedures.

The biggest frustration end users expressed was the districts focus on only providing professional development around subject content. For example, all K-5 teachers will spend their 3 PD days next school year attending math PD. This leaves no time for diversity training.

What is the biggest frustration?

What are their challenges and needs?

What have you learned about your end user?

What is your POV statement?

Teachers and administrators feel the school district has not provided adequate professional development for staff to feel knowledgeable and comfortable approaching topics related to diversity with students, families, or other staff members.

Classroom teachers need to integrate multicultural teaching practices into district approved curriculum that reflects the diversity within a school community in a way that makes teachers feel supported and knowledgeable.

Appendix B: Proposed Ideation Ideas Generated

- Bring people in from other cultures to present to classrooms

- Passports "Around the World" for the year

- Virtual field trip to different countries

- Research projects about a country

- Play other culture's games during PE

- Pen pals from different countries or different states

- Country flags in the lunchroom

- Serving more ethnic food at lunch

- Serve Panda Express on Chinese New Year using their outreach program

- Provide chopsticks for students to try to eat with at lunch

- Foreign Language Clubs

- Schedule a Monthly Culture Day

- Complete Art projects that explore other cultures artistic expressions

- Service projects in communities surrounding our own community

    o St. Peters Elementary (SPE) is a suburban community, how could SPE

       interact with urban and rural communities nearby?

- Incorporate multicultural books into reading curriculum

- Thematic Units that are cross curricular

- Social Studies Curriculum that is cross curricular with reading and writing

- Multicultural night for the whole school

    o Each grade level creates activities for students to engage with different

       cultures

- Cultural Holidays-Teaching and discussing them more in class

- Teaching true stories with an age appropriate lens

- Host foreign exchange students

- Field Trips to different cultural festivals

- Act out a Folktale from a different culture as the 2nd grade musical

- Have a word of the day from a different language

- Say thank you in different languages throughout the year

Appendix C: Code Book

Name	Variable Name	Coding Instructions	Measurement Scale
Unique Identifier	ID	Participants create a unique identifier with a color+4 digits (Green1234)	Nominal
Agreement Questions	q1m to q8m	Strongly Agree, Agree, Neither Agree or Disagree, or Strongly Disagree	Ordinal
Ethnicity	Ethnicity	Caucasian, African American, Latino or Hispanic, Asian, Native American, Other, Prefer Not to Say	Nominal
Years of Experience	Experience	1-4 years, 5-9 years, 10-14 years, 15-19 years, 20-29 years, 30+ years	Ordinal
Gender	Gender	Male, female, Other, I prefer not to answer	Nominal
Positions in Education	Positions	Open Ended: Participants list professional positions in education	Nominal

Appendix D: Digital Copy of the book *The Leader's Guide to Unconscious Bias*:

https://www.scribd.com/read/480102924/The-Leader-s-Guide-to-Unconscious-Bias-How-To-Reframe-Bias-Cultivate-Connection-and-Create-High-Performing-Teams

Appendix E: Book Study Discussion Guide

Discussion Guide

1. **Introduction**
   1. What does the concept of "unconscious bias" mean to you?
   2. How have you seen unconscious bias play out in a leadership context?
2. **Part 1: Understanding Bias**
   3. What were your key takeaways from this section?
   4. The book explores the idea that bias is natural. How does this perspective resonate with your own experiences?
3. **Part 2: See the Bias**
   5. How did the authors' examples of bias in action impact your understanding of the issue?
   6. Can you recall a situation from your own life where you realized after the fact that your judgment was biased?
4. **Part 3: Cultivate Connection**
   7. Why do you think cultivating connection is an important step towards addressing unconscious bias?
   8. How might leaders work to foster connection within their teams?
5. **Part 4: Choose Courage**
   9. Discuss the role of courage in confronting unconscious bias.
   10. Can you think of a time when you chose to address bias in your environment? What was the outcome?
6. **Part 5: Apply Across the Talent Lifecycle**
   11. How can the concepts in this book be applied to hiring, retention, performance evaluations, and promotions?
   12. How do biases in these areas potentially impact an organization's success?
7. **Part 6: Commit to Influence**
   13. How can leaders influence their organizations to minimize the impact of unconscious bias?
   14. What are some potential obstacles to these changes, and how might they be overcome?
8. **Epilogue**
   15. After reading this book, how have your views on unconscious bias changed?
   16. What are the most important steps you believe should be taken in your organization to address unconscious bias?
9. **General Discussion**
   17. Which strategies or concepts from the book resonated most with you, and why?
   18. What actions will you take in your own life or work because of reading this book?
   19. How can we, as a group, work to continue the discussion around unconscious bias outside of this book study?

Appendix F: Multicultural Curriculum

The following link provides access to the curriculum unit created by the researcher. It includes a pacing guide, lesson plans, presentation slides, and printable resources as needed.

Link:
https://drive.google.com/drive/folders/13AYU419QRzdWR4BNl6fw7mLT3ERse5 jV?usp=share_link

Appendix G: Digital Journal

Access to the digital journals is provided in the link below. Participants will be able to open the Google folder and access the journal form for the week they are completing while teaching the unit.

https://drive.google.com/drive/folders/13m-p3byOupF8qBK8xzfVRPhUp_sPYdFF?usp=share_link

Biographical Information

I am a dedicated educator with over seven years of experience in the field of education, primarily focused on early childhood development. My journey in this vocation began with a six-month tenure as a reading interventionist, where I worked closely with students from kindergarten to second grade. This role was pivotal in shaping my understanding of the foundational literacy skills critical for young learners.

Following this, I spent three years teaching first grade, followed by four years in my current role as a second-grade teacher. My entire educational career has been within the context of Title I schools. This environment has been both challenging and rewarding, allowing me to work with diverse student populations and address a wide range of educational needs.

Apart from my classroom responsibilities, I have been an active member of the school's leadership team for six years. In this capacity, I have undertaken various roles, focusing initially on staff self-care initiatives, then shifting to academic supports. Currently, I am deeply involved in fostering school culture, a role that allows me to influence the broader educational environment beyond my classroom.

My commitment to the holistic well-being of students led me to serve on the school-wide social-emotional support team for two years. This experience underscored the importance of addressing the emotional and social needs of students as a foundation for academic success.

In recognition of my efforts, I was honored with the "Educator of the Year" award for my school site in the 2019-2020 academic year. This accolade is a testament to my

dedication to my profession and my commitment to the growth and development of my students.

In summary, my role as a scholar practitioner in education extends beyond teaching and encompasses leadership, advocacy for student welfare, and a continuous pursuit of creating a nurturing and positive learning environment.