

NEW JERSEY DUAL LANGUAGE TEACHERS' PERCEPTIONS OF CULTURALLY
RESPONSIVE TEACHING CAPABILITIES

A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of
DOCTOR OF EDUCATION

by

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William Paterson University of New Jersey

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ABSTRACT

This study served to examine dual language teachers' perceptions of culturally relevant capabilities in implementing culturally responsive teaching practices and explore the factors that influence their confidence in fostering inclusive, equitable learning environments. Grounded in Bandura's self-efficacy theory and Gay's framework for culturally responsive teaching, this quantitative descriptive study was an investigation of the impact of professional development, program type (one-way dual language [OWDL] vs. two-way dual language [TWDL]), and multilingualism on teachers' perceptions of their efficacy in culturally responsive teaching. Findings indicate that targeted professional development significantly enhances teachers' confidence in applying culturally responsive teaching strategies, reinforcing the necessity for structured training that connects theory and practice. Conversely, program type and multilingualism were not significant predictors of self-efficacy, suggesting that while these factors may shape teachers' experiences, they do not directly determine their perceived ability to implement culturally responsive pedagogy. This study contributes to the growing body of literature on culturally responsive teaching by emphasizing the importance of continuous professional learning in preparing teachers to address the diverse cultural and linguistic needs of students. The findings have implications for policy and practice, highlighting the necessity of professional development initiatives that equip teachers with practical strategies for fostering inclusive classrooms. Future research should include the long-term effects of professional development on culturally responsive teaching, the role of school leadership in supporting culturally responsive pedagogy, and systemic factors affecting teachers' self-efficacy. By prioritizing these areas, teachers, and policymakers can strive toward a more equitable and culturally affirming educational system.

DEDICATION

“Trust in the Lord with all your heart and lean not on your own understanding; in all your ways submit to him, and he will make your paths straight.”

Proverbs 3:5-6

This dissertation is dedicated to everyone who has supported, encouraged, and uplifted me during this journey.

To my husband, William, your unwavering support, patience, and belief in me have formed the foundation of my success. Through every late night, every challenge, and every milestone, you stood by my side, reminding me that I was capable of achieving this goal. I am forever grateful for your love and encouragement.

To my three wonderful children and their partners, Victoria and Forhad, Branden and Emily, and Katherine and Joey, thank you for your understanding and patience over these past 3 years. Your love and support have meant everything to me, even when I was unavailable or caught up in my studies. I truly appreciate your encouragement and the support you showed while I pursued this dream.

To my grandsons, Jeremiah and Jesiah, your joy, energy, and eagerness to spend time with me remind me constantly of what truly matters. Thank you for being so patient while I was “always working” and for making our time together so precious. I look forward to many more adventures with you, especially in the sunshine.

To my newest grandson, Maverick, the anticipation of your arrival helped me stay focused on completing this work by the original deadline.

This achievement is not mine alone—it belongs to all of you.

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CHAPTER I. INTRODUCTION

Overview

Dual language programs play a vital role in contemporary education by promoting bilingual proficiency, cultural competence, and enhanced academic performance (Collier & Thomas, 2017; Howard et al., 2018; Lindholm-Leary, 2012). These programs encourage inclusivity and equity; however, their success relies on teachers being adequately prepared to address social justice and equity in the classroom (Howard et al., 2018). Without sufficient training, teachers might inadvertently reinforce societal biases instead of challenging them.

Teachers play a crucial role in addressing systemic inequities through their teaching practices, making the development of an inclusive curriculum a vital strategy. This inclusivity entails integrating diverse cultural perspectives and materials that reflect the backgrounds of all students, thereby creating culturally relevant and meaningful lessons that resonate with students' lived experiences (Banks, 2015; Gay, 2018). Furthermore, adaptive teaching methods—flexible instructional strategies that respond to students' various cultural, linguistic, and learning needs—are essential for effectively educating multilingual learners (MLs; Tomlinson, 2001).

Culturally responsive teaching (CR teaching) is especially relevant in dual language programs, as bilingual initiatives often function within inherently diverse environments. CR teaching practices, strongly endorsed by researchers (Gay, 2018; Hammond, 2015; Ladson-Billings, 2014; Nieto, 2002), play a critical role in addressing disparities arising from language barriers and cultural differences, fostering educational equity by recognizing and utilizing students' cultural assets and prior knowledge. However, professional development (PD) programs often fail to adequately prepare teachers to implement CR teaching, particularly in districts where there is an assumption that dual language teachers are already skilled in these

practices. Understanding how dual language teachers view their ability to apply CR teaching is vital, as these perceptions significantly affect their teaching approaches and interactions with students (Siwatu, 2007). Furthermore, preparation in CR teaching cultivates competent and confident teachers in their ability to employ these practices (Siwatu, 2011). This study, therefore, investigated dual language teachers' interpretation of CR teaching, their self-efficacy in implementing CR teaching practices, and examined how programming, linguistic background, and PD could influence their self-efficacy in applying these practices in their classrooms. Ultimately, this research aimed to guide the design of PD by incorporating essential components of CR teaching strategies, thereby contributing to a more inclusive and effective educational environment for all students (Lucas, 2010; Palmer & Martínez, 2016).

Statement of the Problem

All dual-language programs should encompass three fundamental goals: achieving grade-level academic success, promoting bilingualism and biliteracy, and fostering sociocultural competence (Howard et al., 2018, p. 7). Palmer et al. (2019) introduced another crucial goal for two-way dual language (TWDL) programs. The fourth fundamental goal should involve integrating teachers' equity and social justice work into their PD during the pre-implementation phase of the program (Palmer et al., 2019). Furthermore, Howard et al. (2018, p. 93) highlighted that equity is central to social justice in dual-language classrooms, affecting how teachers conceptualize sociolinguistic and sociocultural objectives for their students. Addressing these themes of equity and social justice is vital in PD initiatives. By embedding social justice into PD, teachers can enhance their understanding and responsiveness to their students' varied socioeconomic and cultural backgrounds, fostering an inclusive and equitable learning environment for all (Howard et al., 2018; Palmer et al., 2019).

There are primarily two types of dual language programs. The first type is the one-way dual language (OWDL) program, which is designed mainly for students from a single-language background, typically those who speak a language other than English at home. These programs focus on developing bilingualism, biliteracy, and academic achievement in both the student's native language and English. Instruction is delivered in both languages, with the student population generally consisting of speakers of the same non-English language, such as Spanish-speaking students learning both Spanish and English.

The second type is TWDL programs, designed to serve both native English speakers and speakers of another language, such as Spanish. In these programs, the student body is balanced between speakers of the two languages, and all students receive instruction in both languages. The goal is for both groups to become bilingual and biliterate, with students learning from each other's linguistic and cultural backgrounds. This program fosters linguistic and cultural exchange, promoting greater understanding and appreciation among students from diverse linguistic backgrounds.

While several researchers (Collier & Thomas, 2017; Gonzalez et al., 2021; Howard et al., 2018; Palmer et al., 2019) have demonstrated the significance of equity and social justice in implementing TWDL programs and the PD provided for teachers to promote fairness for all students, it is essential to apply the same focus on social justice and equity to all dual language programs, not just TWDL. Ensuring that equity and social justice are integral components of all dual language initiatives addresses the diverse needs and backgrounds of students in OWDL, developmental, and heritage language programs. This comprehensive approach fosters fairness and inclusivity, creating an environment where every student can excel academically and develop bilingualism, biliteracy, and sociocultural competence. Applying these principles across

all dual language programs aids in the establishment of equitable educational systems that recognize and celebrate the cultural and linguistic diversity of every student, ultimately fostering a more socially just and inclusive society (Collier & Thomas, 2017; Gonzalez et al., 2021; Howard et al., 2018; Palmer et al., 2019).

All dual language programs present teachers with unique challenges, including linguistic diversity, cultural differences, and the demands of bilingual instruction necessary to effectively engage all students. One way to prepare dual language teachers for success in tackling these challenges is to assess their confidence in inclusive teaching practices by measuring their self-efficacy during the program's pre-implementation stage (Freire & Valdez, 2017; Palmer et al., 2019). District leaders need to gain deeper insights into the specific PD needs of dual language teachers to design effective training that addresses the critical themes of equity and social justice.

The differences in self-efficacy among dual language teachers might arise from the mixed-language environment in TWDL programs, where teachers must balance the needs of diverse language groups. This experience may enhance their perceptions of their CR teaching capabilities and boost their confidence in fostering cross-cultural understanding (Palmer et al., 2019; Howard et al., 2018).

Concerning PD for CR teaching, TWDL teachers may also have access to more targeted PD focused on managing bilingual and bicultural classrooms, boosting their confidence in CR teaching. In contrast, OWDL teachers might receive more language-focused PD, which could affect their perceptions of CR teaching (Muñiz, 2020). Teachers who regularly work with culturally diverse student populations, a situation more common in TWDL programs, tend to feel more competent in their CR teaching abilities (Castro & Calzada, 2021).

Differences in perceptions of CR teaching capabilities between monolingual and multilingual dual language teachers may arise from their unique linguistic experiences, cultural insights, and comfort levels in diverse classroom environments. Aquino-Sterling and Rodríguez-Valls (2016) indicated that multilingual teachers possess distinct competencies that enhance their ability to support culturally and linguistically diverse students. Their firsthand experiences with multiple languages and cultures enable them to rely on personal knowledge when implementing CR teaching practices, making them more assured in fostering inclusive, culturally relevant settings. DeMatthews and Izquierdo (2020) discovered that bilingual and bicultural teachers were more inclined to engage in CR practices and feel self-assured in their capabilities. Multilingual teachers gain more from CR teaching PD because they can directly apply these strategies. Conversely, monolingual teachers may encounter greater difficulties in adapting inclusive teaching practices, resulting in lower perceptions of their CR teaching capabilities. Nevertheless, it is also feasible that monolingual teachers can acquire valuable cultural and linguistic insights, as well as heightened comfort, by working with diverse students and engaging with various parents. This area calls for further research to deepen understanding.

To better prepare dual language teachers and design effective PD that includes culturally relevant teaching practices, it is crucial to identify their levels of self-efficacy, whether high, medium, or low. It is also essential to examine if teachers' self-reported efficacy regarding CR teaching practices varies based on the type of bilingual program and their language background. However, there is limited empirical research on these topics. This study was aimed to address that gap.

Research Questions

This study examined New Jersey elementary dual language teachers' understanding of CR teaching and evaluated their self-efficacy in applying CR teaching practices in their classrooms. The following research questions (RQs) guided this study.

RQ1: How do dual language teachers in New Jersey understand the meaning of CR teaching, and does this understanding shift after they complete the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) survey?

RQ2: How do elementary dual language teachers in New Jersey perceive their abilities to implement CR teaching practices in their classrooms?

RQ2a: Do perceived self-efficacy levels differ between New Jersey elementary one-way dual language (OWDL) teachers and those in two-way dual language (TWDL) programs?

RQ2b: Does perceived self-efficacy differ between New Jersey elementary dual language teachers who participated in CR teaching PD and those who did not?

RQ2c: Do teachers whose first language is not English or who are multilingual perceive their self-efficacy in CR teaching differently compared to those who speak only English?

RQ3: Which of the five dimensions of multicultural education do New Jersey dual language teachers engage with the most, and which dimension do they engage with the least?

Conceptual Framework

This study was based on two interrelated theoretical perspectives: multicultural education and CR teaching. Banks's (1989) theory of multicultural education provides the foundational

framework for CR teaching practices, emphasizing the importance of creating inclusive and equitable learning environments. Through empirical investigation, this research served to examine how CR teaching practices contribute to educational equity and promote positive academic and sociocultural outcomes for diverse student populations.

Multicultural Education

James Banks (1989), a pioneer in multicultural education, was among the first scholars to examine schools as social systems from a multicultural perspective. Multicultural education acknowledges and celebrates diversity, emphasizing the integration of varied cultural perspectives, knowledge systems, and experiences into educational practices (Banks, 1988). It is based on the idea that education should empower learners from all cultural backgrounds, fostering their academic success and critical consciousness while promoting understanding and respect for diverse cultures. His concept of multicultural education is founded on the principle of educational equity, and Banks (1989) asserted that creating a “multicultural school environment” necessitates a comprehensive assessment and renovation of all school aspects, including policies, teachers’ attitudes, instructional materials, assessment methods, counseling, and teaching methodologies.

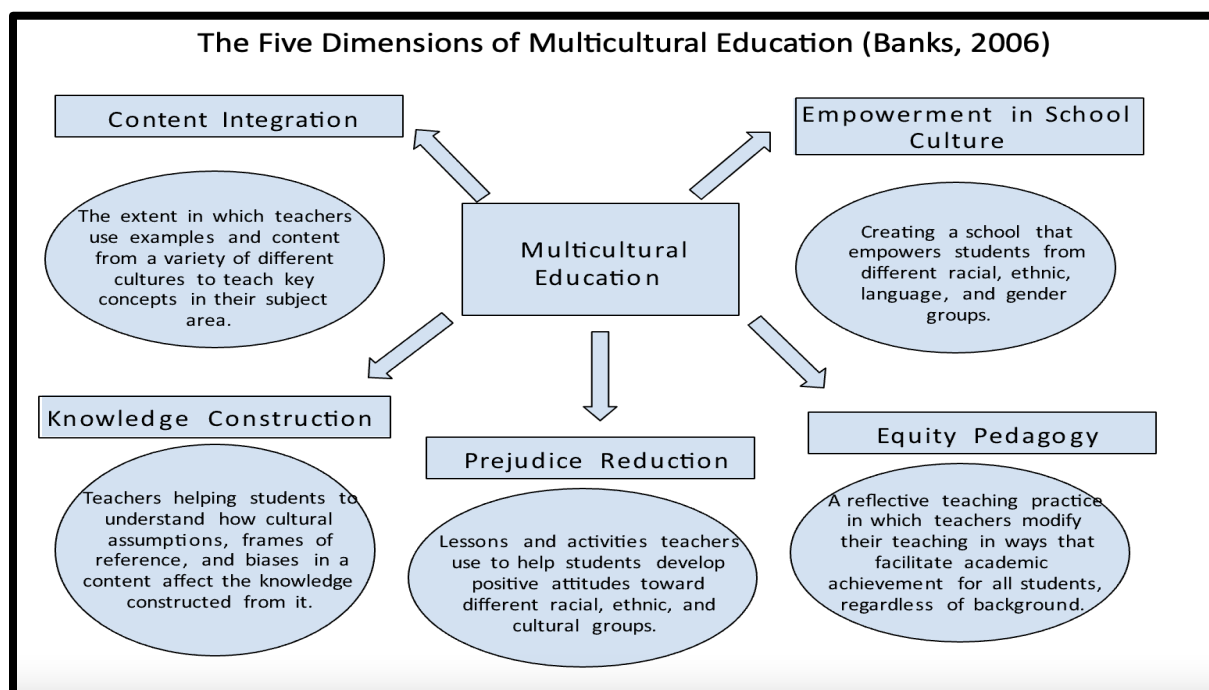
In dual language education, this framework highlights the importance of valuing and integrating students' languages, traditions, and perspectives to create an inclusive learning environment (Banks, 2014). When aligned with the principles of multicultural education, dual language programs offer equitable access to high-quality education while affirming the identities of linguistically and culturally diverse students. By promoting bilingualism and biliteracy, these programs encourage cognitive development and academic success (Banks, 2015).

Dual language teachers must be culturally aware and responsive to meet the needs of MLs. They must incorporate culturally relevant teaching practices and materials that reflect students' diverse experiences. This cultural competence fosters an inclusive, respectful learning environment where all students feel valued and supported.

Banks's (2006) multicultural education theory provides a valuable framework for promoting diversity, equity, and inclusion in dual language programs. As illustrated in Figure 1, Banks's (2006) model outlines five dimensions—content integration, knowledge construction, prejudice reduction, equitable pedagogy, and empowering school culture—that guide the effective implementation of multicultural education. By incorporating these principles, dual language teachers can develop responsive learning environments that support students from all cultural and linguistic backgrounds.

Figure 1

The Five Dimensions of Multicultural Education



Note. Adapted from *Race, Culture, and Education: The Selected Works of James A. Banks* (1st ed.), by James A. Banks, 2006, Routledge. (<https://doi.org/10.4324/9780203088586>).

CR Teaching

Hammond (2015) defined CR teaching as “a process of using familiar cultural information...to scaffold learning...with a communal orientation...focused on relationships, cognitive scaffolding, and critical social awareness” (p. 156). CR teaching theory revolves around recognizing and valuing students’ cultural identities, backgrounds, and experiences in their learning. The theory acknowledges the diversity of students’ cultural and linguistic experiences and emphasizes the importance of integrating their perspectives, knowledge, and experiences into teaching and learning. CR teaching promotes instructional practices that validate and affirm students’ cultural identities while challenging biases and stereotypes within educational settings. Teachers are encouraged to foster inclusive learning environments where all students feel valued, respected, and empowered to succeed. Overall, CR teaching theory aims to create equitable, empowering, and culturally affirming learning environments that support all students’ academic success and well-being.

In 1995, Gloria Ladson-Billings spearheaded the framework of culturally relevant pedagogy, envisioning it to enhance the academic success of all children while honoring their diverse cultural and ethnic backgrounds. She emphasized the importance of helping children recognize, understand, and critique social inequalities (Ladson-Billings, 2014). Building on Ladson-Billings’s work, Geneva Gay (2018) expanded this research. Gay (2018) introduced the term “culturally responsive teaching,” emphasizing teachers’ strategies and practices in the classroom, and also highlighted that “a critical element of culturally responsive teaching is cultural self-awareness and consciousness-raising for teachers” (p. 81).

Gay (2018) encouraged culturally responsive teachers to implement positive changes across various aspects, including instructional methods, learning resources, teacher-student

relationships, classroom environment, and self-awareness to improve student learning outcomes. A key element of Gay's proposal is embracing an asset-based view of students, which she argued is essential for promoting greater success among diverse cultural groups. Echoing Ladson-Billings, Gay (2018) highlighted the importance of enabling students to critically assess inequities in their own experiences or those of their peers.

The Intersection of Multicultural Education and CR Teaching

Multicultural education and CR teaching enhance one another in fostering inclusive and equitable learning environments that encourage diversity, equity, and social justice within education. CR teaching particularly emphasizes the cognitive development of underserved students, whereas multicultural education provides broader social support by cultivating understanding and appreciation for diverse cultures. As Gay (2018) pointed out, CR teaching builds upon the principles of multicultural education by incorporating students' cultural backgrounds into the curriculum, thus promoting equity in diverse classrooms.

Multicultural education highlights the importance of recognizing and valuing diversity in educational environments, serving as a foundational framework for knowledge. Banks (2015) argued that this framework is vital for ensuring that diversity is respected and celebrated in schools. CR teaching builds on this foundation by integrating multicultural principles into the classroom, ensuring that instructional practices reflect and affirm students' cultural identities. Ladson-Billings (1995) reinforced this by emphasizing the significance of incorporating students' cultural experiences into teaching, which promotes cognitive development and academic success.

In discussing curriculum development, Nieto (2000) emphasized how multicultural education fosters an environment that nurtures students' cultural identities. CR teaching further

enhances this by assisting teachers in selecting instructional materials and designing lessons that are culturally significant to students. Moreover, multicultural education promotes teaching practices that encourage critical thinking, perspective-taking, and empathy across cultural divides. CR teaching then brings these practices to life, enabling teachers to adapt strategies that consider students' cultural backgrounds and experiences.

Both multicultural education and CR teaching emphasize preparing teachers to work effectively with diverse student populations. CR teaching provides specific strategies and approaches for incorporating multicultural principles into teaching practice, offering teachers the guidance and support needed to create inclusive and equitable learning environments. This intersection is vital for enhancing student engagement and academic achievement by validating students' cultural identities, fostering a sense of belonging, and promoting cross-cultural understanding and empathy.

CR teaching and multicultural education work together to promote diversity, equity, and inclusion in education. While multicultural education offers the theoretical foundation and guiding principles, culturally responsive education applies these principles in the classroom, ensuring that teaching and learning experiences are relevant, meaningful, and empowering for all students. Paris and Alim (2014) highlighted that culturally sustaining pedagogies build on these principles by advocating for teaching methods that preserve students' cultural identities, further stressing the importance of integrating both approaches.

The intersection of the five dimensions of multicultural education and CR teaching practices creates a comprehensive framework for fostering inclusive and equitable learning environments that honor and value students' cultural and linguistic diversity (see Table 1). This

integration is essential for addressing the complex needs of diverse student populations and promoting social justice in education.

Table 1

The Intersection of Multicultural Education and Culturally Responsive Teaching

	The Five Dimensions of Multicultural Education (Banks, 2006)				
	Content Integration	Knowledge Construction	Prejudice Reduction	Equity Pedagogy	Empowerment in School Culture
Multicultural education encourages teachers to:	Emphasize incorporating diverse perspectives, histories, and cultures into the curriculum to provide a more comprehensive and accurate world representation.	Advocate for critical thinking and examining knowledge from multiple cultural perspectives to challenge dominant narratives and promote a more inclusive understanding of the world.	Aim to reduce prejudice and promote understanding and respect for diverse cultures and identities through education.	Advocate for teaching approaches that address the needs of diverse learners and promote equitable opportunities for academic success.	Seek to create inclusive school environments that empower students from diverse backgrounds and challenge institutional barriers to equity and social justice.
Culturally responsive teaching encourages teachers to (Siwatu, 2007)	<p>Incorporate diverse cultural perspectives, experiences, and examples into the curriculum across all subjects.</p> <p>Select textbooks, literature, and resources that reflect the diversity of students' backgrounds.</p> <p>Integrate culturally relevant topics and themes into lesson plans and classroom discussions.</p> <p>Include multicultural literature and texts written by authors from various cultural backgrounds.</p> <p>Use multimedia resources representing diverse cultures and viewpoints, including videos, music, and artwork.</p>	<p>Encourage students to critically analyze and question perspectives from diverse cultural backgrounds.</p> <p>Provide opportunities for students to share their cultural knowledge and experiences.</p> <p>Facilitate collaborative learning activities where students can construct knowledge based on their diverse perspectives.</p> <p>Incorporate project-based learning assignments that allow students to explore and research topics related to their cultural backgrounds.</p> <p>Use inquiry-based learning approaches that encourage students to investigate cultural phenomena and historical events from multiple perspectives.</p>	<p>Create a safe and inclusive classroom environment where students feel comfortable discussing sensitive cultural, racial, and identity issues.</p> <p>Implement cooperative learning activities that promote positive intergroup interactions and reduce stereotypes and biases.</p> <p>Facilitate open discussions about prejudice, discrimination, and social justice issues and encourage student empathy and understanding.</p> <p>Challenge stereotypes and misconceptions through literature, media analysis, and critical discussions.</p> <p>Address instances of prejudice or discrimination promptly and use them as teachable moments to promote empathy and respect for diversity.</p>	<p>Differentiate instruction to accommodate students' diverse learning styles, abilities, and backgrounds.</p> <p>Use culturally responsive assessment methods to allow students to demonstrate their understanding and skills in multiple ways.</p> <p>Implement flexible grouping strategies that promote collaboration and peer support among students with diverse backgrounds.</p> <p>Offer additional support and resources for students facing academic or socio-cultural challenges.</p> <p>Advocate for equitable classroom policies and practices that ensure all students have access to the same opportunities for learning and success.</p>	<p>Foster a sense of belonging and ownership among students by valuing and affirming their cultural identities and contributions.</p> <p>Provide leadership opportunities for students to take on roles and responsibilities within the classroom and school community.</p> <p>Incorporate student voice and choice in decision-making processes related to curriculum, classroom activities, and school events.</p> <p>Celebrate cultural diversity through multicultural events, festivals, and celebrations highlighting students' cultural heritage.</p> <p>Establish partnerships with families and communities to promote collaboration, engagement, and mutual support in fostering an inclusive and empowering school culture.</p>

Teacher Self-Efficacy

Self-efficacy refers to a teacher's belief in their ability to perform effectively and succeed in specific teaching tasks. Based on Albert Bandura's (1977, 1997) social cognitive theory, self-efficacy plays a critical role in shaping how teachers tackle challenges, set goals, and persist in the face of difficulties.

In dual language programs, self-efficacy serves as a lens to examine how teachers perceive their ability to implement CR teaching practices. Research indicates that teachers with high self-efficacy are more likely to engage in and maintain CR teaching practices, as they are confident in meeting their students' diverse cultural and linguistic needs (Siwatu, 2007). Recent

studies further emphasize the significance of self-efficacy in shaping CR teaching. For instance, Chu and García (2014) found that teachers with strong self-efficacy beliefs are more skilled at integrating students' cultural backgrounds into their teaching, thereby enhancing student engagement and achievement. Similarly, Siwatu et al. (2016) demonstrated that self-efficacy beliefs considerably influence teachers' effectiveness in implementing CR teaching strategies.

Conversely, teachers with low self-efficacy may lack confidence in their abilities, leading to less effective or inconsistent implementation of CR teaching strategies (Ross, 1994). Recent research by Milner (2020) also highlights how lower self-efficacy among teachers can contribute to a lack of confidence in addressing the needs of diverse student populations, resulting in less equitable educational outcomes.

Utilizing self-efficacy as a framework enables the exploration of how teachers' confidence in their CR teaching skills impacts their instructional practices, PD needs, and overall effectiveness in fostering inclusive and equitable learning environments. Grasping these dynamics can help pinpoint areas where teachers may require additional support or PD, ultimately improving dual language education. Research indicates that enhancing teachers' self-efficacy can lead to better student outcomes, especially in diverse classrooms (Comstock et al. (2023). Yost and Mosca (2022) supported this perspective, highlighting that targeted PD aimed at increasing self-efficacy can notably enhance teachers' application of CR teaching.

Significance of the Study

The results of this study are essential for three key reasons: (a) improving instructional methods, (b) guiding PD, and (c) advancing equity and inclusion.

Enhancing Instructional Practices

Teachers' perceptions of their CR teaching abilities influence their instructional methods. When teachers feel confident and capable in their CR teaching skills, they are more likely to implement inclusive and effective strategies that accommodate their students' diverse cultural and linguistic backgrounds (Gay, 2018; Villegas & Lucas, 2002). By understanding these perceptions, educational stakeholders can identify areas where teachers feel less assured and provide targeted support and resources to enhance their instructional practices (Howard, 2003; Ladson-Billings, 1995).

Informing Professional Development

PD programs equip teachers with the knowledge and skills essential for effective CR teaching. This study was aimed to provide valuable insights into their PD needs by examining dual language teachers' perceptions of their CR teaching capabilities. Tailoring PD programs to address identified gaps and challenges can enhance teachers' CR teaching competencies, ultimately leading to more effective and inclusive teaching practices (Sleeter, 2018; Wei et al., 2010).

Promoting Equity and Inclusion

The commitment to equity and inclusion in education is at the heart of CR teaching. By understanding and addressing the perceptions of dual language teachers, this study contributes to the broader goal of creating inclusive and equitable educational environments. Inclusivity and equity are essential in dual language programs, where students' cultural and linguistic diversity must be embraced and valued to ensure academic and social success (Banks, 2015; Paris & Alim, 2014).

In summary, understanding dual language teachers' perceptions of their CR teaching capabilities is essential for enhancing teaching practices and promoting equity and inclusion. CR teaching is a socially just and equitable teaching practice for MLs. Therefore, examining dual language teachers' perceptions of CR teaching is crucial. Thus, dual language teachers must receive PD in CR teaching during preservice or in-service.

Equity, Fairness, and Social Justice

In 2021, the New Jersey Consortium for Immigrant Children (NJCIC) conducted a study in collaboration with the Educational Law Center (ELC) and New Jersey teachers of English to speakers of other languages (NJTESOL), which revealed that despite existing policies from the U.S. Department of Education and New Jersey Department of Education, MLs are more likely to face economic marginalization. New Jersey MLs are less likely to graduate from high school (Scott, 2021). The study emphasized the importance of all MLs exercising their legal right to access “free, appropriate public education” (Scott, 2021, p. 17). It outlined four key purposes for programs aimed at educating MLs. The first is to protect the rights of all MLs. The second is to ensure that MLs receive bilingual education and related services. The third is to assist district boards of education in providing educational services to MLs. Lastly, it mandated an evaluation of the effectiveness of the education provided to MLs.

Failing to use CR teaching practices denies equity, fairness, and social justice to MLs who deserve equitable access to quality education that respects and values their cultural and linguistic backgrounds. When teachers incorporate CR teaching practices, these learners may receive instruction that meets their unique needs and experiences. CR teaching fosters inclusive learning environments where all students feel valued and respected. Ignoring students' cultural

identities and backgrounds creates a sense of marginalization and exclusion, perpetuating inequity in the classroom.

CR teaching empowers MLs by validating their cultural identities and providing meaningful engagement and opportunities for success. When teachers overlook these practices, students' confidence, self-efficacy, and sense of belonging in the learning environment are compromised. Essentially, failing to implement CR teaching practices for MLs perpetuates educational inequities, undermines the principles of social justice, and denies these students the chance to thrive academically, linguistically, and culturally.

Definition of Terms

Culturally responsive (CR) teaching: An educator's ability to recognize students' cultural expressions of learning and meaning-making, and to respond positively and constructively through teaching practices that utilize cultural knowledge as a scaffold, connecting what students know to new concepts and content, promotes effective information processing. The educator understands the significance of building relationships and fostering a social-emotional connection with students to create a safe learning environment (Hammond, 2015).

Dual language education: Dual language education refers to programs that deliver literacy and content instruction in two languages to all students. The goal is to foster bilingualism, biliteracy, grade-level academic achievement, and sociocultural competence. This includes promoting identity development, cross-cultural understanding, and an appreciation for multiculturalism among all students (Howard et al., 2018).

Multicultural education: Multicultural education values the diverse cultures of students and prepares them to thrive in a varied world. At its core, it promotes equality, justice, and

equity, transforming philosophical ideals into reality within classroom environments.

Schools implement multicultural education to create equitable opportunities for all students. Furthermore, it is an ongoing process designed to help students succeed both academically and personally (Banks, 2014).

Multilingual learners (MLs): A student whose primary language is not English and who is developing proficiency in multiple languages (for example, English and their primary language). The term is synonymous with “English learner” or “English language learner” (N.J.A.C. 6A:15).

One-way dual language (OWDL): OWDL programs usually serve linguistically homogeneous groups of students. In OWDL programs, where all students are proficient in the partner language but not in English at enrollment, they are often referred to as developmental bilingual programs. These programs use both languages for instruction, aiding students in gaining proficiency in English while also preserving and further developing their skills in their home language (Howard et al., 2018).

Self-efficacy: The belief in one’s ability to organize and carry out the necessary actions to achieve specific goals (Bandura, 1997).

Two-Way Dual Language (TWDL). Two-way programs generally consist of a roughly equal mix of students who are either monolingual or primarily English-speaking at the time of enrollment, and those who are monolingual or dominant in the partner language. Furthermore, some students might already possess proficiency in both languages when they enroll (Howard et al., 2018).

Summary

Dual language programs offer significant promise for promoting bilingualism, biliteracy, and cultural competence while enhancing educational equity. However, the effectiveness of these programs heavily relies on teachers' ability to implement CR teaching practices effectively. Teachers play a crucial role in addressing systemic inequities and advancing social justice within their classrooms, making their preparation and PD essential. This study was aimed to explore dual language teachers' perceptions of their capacity to implement CR teaching, focusing on how these perceptions are shaped by their linguistic backgrounds and cultural experiences. By understanding these dynamics, the study sought to inform the development of more targeted and effective PD programs, ultimately contributing to a more inclusive and equitable educational environment for all students.

CHAPTER II. LITERATURE REVIEW

CR teaching in dual language programs is significantly influenced by teacher self-efficacy, which is essential for creating inclusive and equitable educational environments. Self-efficacy, the belief in one's ability to effect change and achieve desired outcomes (Bandura, 1997), is vital for implementing CR teaching. Teachers with high self-efficacy are more likely to adopt and sustain CR practices, positively impacting the educational experiences of diverse student populations (Siwatu, 2007, 2011).

Teacher characteristics, such as linguistic backgrounds and cultural experiences, play a crucial role in shaping CR teaching practices. Multilingual teachers offer valuable perspectives and skills that enhance their ability to connect with and support students from various cultural backgrounds (Aquino-Sterling & Rodríguez-Valls, 2016). Research shows that bilingual and bicultural teachers often commit to CR teaching practices, positively affecting student outcomes (DeMatthews & Izquierdo, 2020). The relationship between these characteristics and self-efficacy can significantly influence the effectiveness of dual language programs (Lindholm-Leary & Borsato, 2006).

Teacher self-efficacy and the effective implementation of CR teaching practices can be significantly enhanced through well-structured PD. Recent research highlights the importance of PD in equipping teachers with the skills and strategies necessary to address their students' diverse cultural and linguistic needs.

Castro and Calzada (2021) found that Spanish-speaking Latinx teachers reported higher levels of culturally responsive teaching self-efficacy (CRTSE) and more frequently used culturally responsive strategies, such as incorporating students' cultural backgrounds into instruction. This association between higher CRTSE and the greater use of effective instructional

and behavioral strategies highlights the potential of teacher self-efficacy as a mediating factor in implementing culturally responsive practices.

Notably, the study identified that PD, especially training focused on working with students of color, was positively associated with increased CR teaching self-efficacy. Teachers who had engaged in targeted training and ongoing professional development (PD) demonstrated higher confidence in executing culturally responsive practices. This finding supports the assertion that PD must not only build competence but also confidence in CR teaching, particularly in settings serving low-income and racially and ethnically diverse students.

While both Latinx and non-Latinx teachers reported effective behavior management and parent involvement practices, the authors caution that many existing training programs, though successful in promoting general classroom strategies, often center White, middle-class norms. Without explicitly addressing racism and systemic inequities, such programs may inadvertently undermine efforts to close opportunity gaps for students of color (Sleeter, 2018).

Muñiz (2020) emphasized the transformative role of culturally responsive teachers in affirming student identities and advancing equity in segregated and inequitable school systems. While educators alone cannot dismantle structural inequalities, they can cultivate inclusive classrooms where students feel seen, valued, and empowered. By connecting instruction to students' lived experiences, cultural backgrounds, and societal issues, culturally responsive educators foster rigorous, inquiry-based learning that promotes critical thinking and social awareness.

Muñiz also emphasized the importance of ongoing, reflective PD in helping teachers refine their culturally responsive practices. This process enhances teacher self-efficacy and

ensures that CR principles are effectively translated into classroom instruction, contributing to both academic engagement and social justice.

Teacher Self-Efficacy Regarding CR Teaching Practices

Teacher self-efficacy is critical in implementing CR teaching practices, especially in dual language programs. High self-efficacy among teachers is associated with increased motivation, persistence, and resilience, which are essential for effectively addressing students' diverse cultural and linguistic needs. This section, supported by relevant research studies, serves to explore the significance of teachers' self-efficacy in CR teaching in dual language programs.

The Role of Self-Efficacy in Teaching Practices and Its Impact on CR Teaching

Teachers with high self-efficacy are more inclined to adopt and maintain innovative and inclusive teaching practices. Bandura (1997) asserted that self-efficacy affects teachers' choices, the effort they invest in their teaching, and their persistence when facing challenges. A strong sense of self-efficacy is especially vital in dual language programs, where teachers frequently navigate the complexities of providing instruction in two languages while integrating students' cultural backgrounds.

Several studies demonstrate the positive correlation between teacher self-efficacy and the successful implementation of CR teaching practices. Siwatu (2007) investigated preservice teachers' beliefs about their ability to implement CR teaching practices and their expectations of the outcomes of such practices. Grounded in Bandura's (1977) self-efficacy theory, the study aimed to measure both self-efficacy and outcome expectancy using tools specifically developed for this purpose: the Culturally Responsive Teaching Self-Efficacy (CRTSE) Scale and the Culturally Responsive Teaching Outcome Expectancy (CRTOE) Scale.

Participants ($N = 275$) were preservice teachers enrolled in two teacher education programs in the Midwest. The sample was predominantly White (255 out of 275) and female (200 out of 275), with an average age of 21.91. Participants spanned all undergraduate levels and represented elementary, middle, and secondary education majors. On average, they had completed 2.38 diversity-related courses and 1.49 practicum experiences.

The CRTSE scale consisted of 40 items measuring teachers' confidence in implementing culturally responsive practices (e.g., identifying student needs), rated on a scale from 0 (no confidence) to 100 (complete confidence). The CRTOE scale, consisting of 26 items, assessed beliefs about the likelihood that CR teaching practices would yield positive student and classroom outcomes, rated from 0 (entirely uncertain) to 100 (entirely certain).

Findings revealed that while many preservice teachers expressed confidence in general pedagogical strategies that align with CR teaching (e.g., building relationships), they felt less confident in enacting more complex or specific culturally grounded practices. These results stress the importance of intentional preparation, practice, and feedback within teacher education programs to support the development of culturally responsive teaching competencies. Siwatu's study remains foundational in the field for its contribution to understanding and measuring CR teaching-related teacher beliefs. Siwatu (2007) found that teachers who trusted their ability to apply CR strategies were more likely to incorporate students' cultural backgrounds into the curriculum, use culturally relevant examples, and foster a classroom environment that respects and celebrates diversity.

Howard et al. (2018) also revealed that teachers with greater experience and a wider range of certifications (e.g., English as second language [ESL], bilingual) were more inclined to perceive their dual language program as equitable, effective for both student groups, inclusive of

family participation from both language communities, and supportive of a comprehensive approach to multicultural education.

Addressing a teacher's self-efficacy is critical in dual language programs, which aim for bilingualism, biliteracy, and biculturalism. DeMatthews and Izquierdo (2020) examined a dual language elementary school along the U.S.–Mexico border. This qualitative case study examined culturally responsive school leadership within the context of a one-way, 50:50 dual language program at an elementary school serving predominantly Mexican American immigrant students. The study focused on how a school leader supported the development and sustainability of a dual language program while addressing the cultural and linguistic needs of students and families. The inquiry explored how the leader affirmed community identities, navigated shifting educational and sociopolitical contexts, and worked to disrupt entrenched systems of racial and economic inequity in a segregated, immigrant community.

Data collection involved in-depth observations, school artifacts, and interviews that provided insight into leadership strategies and contextual challenges encountered during the implementation of the dual language model. The analytic framework was grounded in culturally responsive school leadership theory, emphasizing the examination of personal biases, recognition of systemic oppression, and affirmation of students' cultural and linguistic assets.

The findings were organized into three thematic areas: (a) background, describing the school's demographic and instructional setting; (b) challenges to reform, highlighting obstacles to implementing dual language and culturally responsive practices; and (c) deconstructing leadership, examining the actions of the school leader and the engagement of teachers. Despite ongoing challenges, the school developed a culture centered on care, inclusivity, and asset-based engagement. Teachers reported a gradual shift toward more culturally responsive planning and

instruction, and the school demonstrated higher-than-average academic outcomes when compared to similarly situated schools. The study illustrates the potential of dual language education as a pathway to equity when guided by culturally responsive leadership and collaborative teacher practices.

Additionally, Aquino-Sterling and Rodríguez-Valls (2016) emphasized the importance of culturally, linguistically, and professionally relevant training in boosting teacher self-efficacy. Their research revealed that confident teachers are better equipped to meet the needs of diverse students in language acquisition settings. This study examined the preparation of future bilingual educators by focusing on the development of teaching-specific Spanish language competencies necessary for effective instruction across content areas in K–12 bilingual/dual language settings. Grounded in a culturally, linguistically, and professionally responsive pedagogical framework, the study aimed to shift the focus of bilingual teacher preparation from general and academic Spanish proficiency to a more nuanced understanding of the specific linguistic and metalinguistic skills required for teaching in bilingual classrooms.

The research emphasized a model in which Spanish is treated not only as a medium of instruction but as a multidimensional cultural asset, reflective of the identities and lived experiences of bilingual teacher candidates and their students. This model was designed to support a non-deficit, additive approach to language development, affirming the legitimacy and richness of bilingual language practices among Latino/a teacher candidates in the U.S.

The study called for a reorientation of bilingual teacher education programs to intentionally embed opportunities for candidates to build pedagogically relevant Spanish competencies—those that support content delivery, critical language awareness, and instructional clarity in bilingual settings. This approach validates teacher candidates' bilingual repertoires and

centers culturally sustaining pedagogies that empower teachers to engage students using their home languages and cultural knowledge as critical tools for academic success.

Teacher self-efficacy is crucial for successfully implementing CR teaching practices in dual language programs. High self-efficacy enables teachers to embrace and integrate students' cultural and linguistic backgrounds, promoting an inclusive and effective learning environment.

Christison (2023) investigated the impact of a course on teaching language awareness on preservice teachers' beliefs, self-efficacy, and instructional planning for MLs. Across six semesters, 268 pre-service teachers—primarily preparing for K–6 or special education—participated in the course required for licensure and English as a Second Language endorsement. Although most identified as monolingual, a majority had studied a foreign language, offering some cross-linguistic perspective.

The study took place in a culturally and linguistically diverse K–12 context, where English was the primary language of instruction for ML education due to the high number of home languages spoken in schools. Through written reflections, language identification tasks, and the creation of instructional materials, the pre-service teachers demonstrated growth in their understanding of multilingualism and culturally responsive teaching. Findings highlighted the importance of targeted teacher education in boosting self-efficacy and preparedness to teach MLs, supporting that teacher preparation can significantly shape instructional readiness. As the demand for dual language education grows, enhancing teacher self-efficacy through targeted PD will be essential for achieving educational equity and excellence for all students.

In summary, teacher self-efficacy is vital for effectively implementing CR teaching in dual language programs. Research consistently shows that teachers who are confident in their ability to integrate students' cultural and linguistic identities into their instruction are more likely

to create engaging, inclusive, and equitable learning environments. High self-efficacy fosters resilience, adaptability, and a commitment to student-centered practices that affirm and celebrate diversity.

Moreover, as dual language programs continue to expand, enhancing teacher self-efficacy through focused PD is vital. By providing teachers with the essential skills, strategies, and supportive experiences, they will be better equipped to meet the diverse needs of MLs while advancing the broader objectives of bilingualism, biliteracy, and multicultural competence. By emphasizing self-efficacy in PD and instructional design, dual language teachers can more effectively bridge linguistic and cultural divides, ultimately fostering academic success and the social-emotional well-being of all students.

The Role of Teacher Language Background and Cultural Experiences on Perception of CR

Teaching Capabilities

Teacher characteristics, such as linguistic background and cultural experiences, significantly influence their perceptions and effectiveness regarding CR teaching practices. Multilingual teachers from various cultural backgrounds often bring unique perspectives and skills to their instruction, which can enhance their ability to implement CR teaching strategies successfully. This section examines how multilingualism affects teachers' perceptions of their CR teaching capabilities and reviews relevant studies that demonstrate the impact of these characteristics on teaching practices.

Influence of Multilingualism on CR Teaching Perceptions

Multilingual teachers often have a deeper understanding of the challenges and benefits related to learning and teaching in multiple languages. Their experiences with language acquisition and navigating various cultural contexts can inform their approach to CR teaching,

making them more aware of their students' linguistic and cultural needs. This awareness can lead to increased self-efficacy and a more substantial commitment to implementing CR teaching practices.

Palmer et al. (2019) suggested that multilingual teachers are more likely to recognize the value of students' home languages and incorporate them into their teaching. This practice validates students' cultural identities and supports their academic development. Multilingual teachers' ability to draw on their linguistic skills can facilitate more effective communication with students and parents, fostering a more inclusive and supportive classroom environment. In fact, numerous studies have examined the relationship between teachers' multilingualism and their perceptions of CR teaching capabilities.

As mentioned earlier, Aquino-Sterling and Rodríguez-Valls (2016) found that bilingual teacher candidates who developed teaching-specific competencies in Spanish exhibited higher self-efficacy in content-rich teaching. These teachers expressed greater confidence in incorporating students' cultural backgrounds into the curriculum and fostering culturally responsive learning environments. By embedding this development within a culturally and professionally responsive framework, the study emphasizes how intentional language preparation not only enhances instructional effectiveness in Spanish but also strengthens teachers' ability to affirm student identities and implement culturally responsive pedagogy with confidence.

Moreover, Cruz et al. (2020) conducted a comprehensive survey study to examine teachers' self-efficacy in implementing CR teaching practices. The study included 245 preservice and in-service educators, recruited through convenience sampling across California, Idaho, Oregon, and national networks. The group was predominantly female (80.9%) and White (59.8%), with representation from Asian (15.4%), Latino (9.8%), and African American (6.1%)

educators. Additionally, 14.3% reported a first language other than English. Teaching experience ranged from 0 to 51 years, with a mean of 4.74 years.

Results from the study's descriptive analysis revealed that participants rated themselves highest in relational aspects of CR teaching, particularly in building trust and positive relationships with students, an essential foundation for culturally responsive pedagogy. However, lower mean scores were observed in areas that required specific cultural knowledge, such as validating students' home languages and incorporating their cultural contributions into subject areas like science and mathematics. These gaps suggest that while many teachers are equipped to foster supportive classroom environments, fewer feel confident in translating students' cultural assets into rigorous, standards-aligned instruction.

The study also found that CR teaching self-efficacy varied by experience and background. Teachers with more years of experience in the profession reported significantly greater confidence in implementing CR teaching, highlighting the need for early-career support. Preservice teachers, in particular, demonstrated lower self-efficacy, indicating a need for targeted support, including practical application, community engagement, and mentoring. While identifying as Latino was associated with higher CR teaching self-efficacy, teachers whose first language was not English reported less confidence.

Finally, as mentioned earlier, DeMatthews and Izquierdo (2020) emphasized the importance of culturally responsive teachers in a dual language elementary school located on the U.S.–Mexico border. Their study revealed that multilingual teachers were more effective at building relationships with students and families, utilizing their language skills to bridge cultural gaps and improve student engagement. These teachers' multilingualism allowed them to better understand and meet the unique needs of their diverse student population.

As shown above, studies conducted in various states across the United States have confirmed that a teacher's language background significantly influences their self-efficacy with regards to implementing CR teaching practices. However, none of the studies were conducted in the state of New Jersey.

Importance of Teacher Readiness for CR Teaching and PD

Teacher readiness for CR teaching is essential for the success of diverse student populations, especially in dual language programs. The concept of teacher readiness includes not only the mastery of CR teaching practices but also the self-efficacy and willingness of teachers to implement these practices effectively. Research has shown that teachers' preparedness to engage in CR teaching significantly impacts their ability to create inclusive, equitable, and culturally relevant learning environments (Gay, 2018).

One of the main reasons teacher readiness is essential is that CR teaching requires more than merely recognizing cultural differences; it necessitates a proactive commitment to incorporating students' cultural backgrounds into the curriculum and classroom dynamics. This includes adjusting teaching methods, materials, and assessments to represent the cultural diversity of the student body, thus enhancing student engagement and academic success (Hammond, 2015). Teachers who are ready to implement CR practices are more likely to foster a classroom environment where all students feel respected, valued, and motivated to thrive.

Siwatu (2007) emphasized the significance of self-efficacy in teacher readiness for CR teaching. In this study of preservice teachers, Siwatu (2007) found that those with high self-efficacy in implementing CR teaching practices were more likely to adopt and maintain these practices in their future classrooms. This result highlights the need for teacher education programs to be concentrated on developing the skills and confidence essential for effective CR

teaching. By nurturing a robust sense of self-efficacy, teacher education programs can better equip teachers to face the challenges of diverse classrooms.

Teacher readiness for CR teaching is strongly linked to ongoing professional development (PD). Research shows that even experienced educators benefit from continuous learning opportunities focused on CR practices. Lucas and Villegas (2013) emphasize that PD should help teachers critically examine their cultural biases and develop strategies to foster inclusive classrooms. They also highlight the growing presence of multilingual learners (MLs) in general education settings and assert that all teachers, not just bilingual teachers, must be prepared to meet the needs of linguistically diverse students. While school districts play a vital role in supporting practicing teachers through PD, Lucas and Villegas argue that preparation for teaching culturally and linguistically diverse (CLD) students must begin in preservice programs and continue throughout a teacher's career.

Due to the complex linguistic and cultural dynamics, teacher readiness is vital in dual language programs. Teachers must be prepared to navigate the challenges of instructing students from diverse linguistic backgrounds while promoting bilingualism and biliteracy. Moreover, teacher readiness extends beyond individual classrooms to the broader educational system. As schools and districts increasingly recognize the value of CR teaching, there is a growing need for systemic support to ensure that all teachers are prepared for this work. This includes providing access to high-quality PD, fostering a school culture prioritizing equity and inclusion, and ensuring that teacher evaluation systems recognize and reward CR teaching practices (Gay, 2018; Paris & Alim, 2017).

Although it is well-documented that fostering teacher self-efficacy for CR teaching is essential for enhancing their readiness, most school districts and teachers are not fully aware of

the complexities and nuances involved in CR teaching. As a result, CR teaching is often not sufficiently explained or defined, and its principles may be implied or diluted, even when included in dual language teachers' PD programs. To address this issue, Siwatu (2007) developed the CRTSE Scale, a tool designed to measure teachers' confidence in implementing CR teaching practices. The CRTSE Scale evaluates various teaching aspects, including content integration, knowledge construction, prejudice reduction, equitable pedagogy, and empowering school culture, which address students' diverse cultural and linguistic backgrounds, thus helping teachers better understand and enhance their CR teaching abilities.

In summary, teacher readiness for CR teaching is essential for achieving educational equity and excellence, particularly in dual language programs. School administrators must recognize the importance of self-efficacy, ongoing PD, and systemic support in preparing teachers to effectively implement CR teaching practices. By prioritizing teacher readiness, teachers, schools, and districts can create more inclusive and culturally responsive learning environments that foster the success of all students.

Limitations of the Existing Research

Current research on CR teaching practices in dual language settings reveals several limitations that deserve attention. One significant issue is the need for findings to be more generalizable. Many studies are concentrated on specific geographic regions, student populations, or program types, which may not fully capture the broader diversity of dual language settings. For example, research conducted in predominantly Hispanic communities may only partially reflect teachers' experiences in dual language programs with other linguistic groups. This narrow focus limits the applicability of these findings to different contexts and varied dual language environments (Gay, 2018; Ladson-Billings, 2014).

Another limitation is the inconsistency of measurement tools used across studies. The scales and instruments used to assess teachers' self-efficacy and CR teaching practices vary significantly, leading to differences in how these concepts are interpreted and evaluated. Siwatu's (2007) CRTSE Scale is a well-regarded and validated instrument in this field. However, it may not fully encompass all relevant aspects of CR teaching, particularly in the diverse and dynamic context of dual language programs. This variability in measurement tools hinders the comparison of findings across different studies and limits the overall understanding of CR teaching in these settings (Siwatu, 2007).

Furthermore, the research mainly concentrates on English–Spanish dual language programs, potentially overlooking other language pairs like English–Mandarin or English–Arabic. These programs may pose unique challenges and opportunities for CR teaching that should be examined in the existing literature. This emphasis on a single language pair restricts the scope of CR teaching research and its relevance to dual language programs with varying linguistic and cultural dynamics (DeMatthews & Izquierdo, 2020; Lindholm-Leary, 2012).

Another area for improvement is the need for longitudinal studies. Most research in this area is cross-sectional, offering only a snapshot of CR teaching practices at a specific point in time. Longitudinal studies, which monitor changes in teacher self-efficacy and CR practices over time, are essential to better understand how these aspects evolve as teachers gain experience and engage in ongoing PD (Aquino-Sterling & Rodríguez-Valls, 2016; Hernandez et al., 2013).

Finally, while many studies emphasize the importance of PD in enhancing CR teaching, there needs to be a more thorough exploration of the specific content, duration, and delivery methods that are most effective. Research highlights the necessity of PD only after fully addressing how it can be tailored to meet the unique needs of dual language teachers. This gap

indicates the need for additional research focused on designing and evaluating targeted PD programs that can genuinely support CR teaching in dual language settings (Howard et al., 2018; Palmer et al., 2019).

Summary

This chapter emphasized the critical role of CR teaching in promoting educational equity while highlighting the challenges and opportunities that dual language programs present in fostering bilingualism, biliteracy, and cultural competence. It also stressed the importance of dual language teachers' self-efficacy in their capabilities, which may influence their effectiveness in implementing CR teaching practices.

The literature review revealed significant differences in CR teaching perceptions among teachers based on their linguistic and cultural backgrounds, highlighting the need for differentiated PD. Additionally, it identifies gaps in current research, especially concerning the self-efficacy of dual language teachers in implementing CR teaching, which this study was aimed to address.

This study contributes to the existing body of knowledge and informs the design of PD practices by examining how dual language teachers perceive their readiness and ability to implement CR teaching. The findings will have implications for enhancing dual language teacher preparedness, improving instructional practices, and ultimately advancing the goals of dual language education. As such, this study is positioned to fill a critical gap in the literature and provide valuable insights for teachers, administrators, and researchers committed to fostering inclusive and equitable learning environments.

CHAPTER III. METHOD

Research Design Overview

The primary objective of this research was to explore how dual language teachers perceive their capabilities in applying CR teaching practices. This research was aimed to provide the following:

1. Examination of how dual language teachers perceive their ability to execute CR teaching practices.
2. Examination of the factors that affect teachers' confidence in their ability to integrate CR teaching practices in their classrooms. This includes PD experiences, the context of their dual language programs, and whether the participants are multilingual or not.

By addressing these objectives, this study was conducted to enhance the understanding of the factors that support or hinder the implementation of CR teaching in dual language settings. Ultimately, the findings will inform teacher preparation programs and PD efforts designed to improve educational equity.

This study employed a quantitative descriptive research method, primarily a structured survey, to explore dual language teachers' self-efficacy and perceived readiness to implement CR teaching practices in K–6 classrooms throughout New Jersey. The Culturally Responsive Teaching Self-Efficacy (CRTSE) Scale was used to provide measurable insights into teachers' confidence levels across various CR teaching practices.

To further clarify the quantitative findings, an open-ended question component was added as a supplementary tool. Participants were asked to respond to two open-ended questions—one before and one after completing the CRTSE Scale—focused on their personal understanding of CR teaching. These responses were not analyzed as standalone data but were

instead used to explain and contextualize the quantitative results, particularly regarding potential shifts in conceptual understanding after engaging with the scale items.

This quantitative descriptive approach enabled a more nuanced interpretation of the quantitative data by integrating participants' evolving definitions of CR teaching. While the study remained grounded in quantitative analysis, the inclusion of reflective prompts enhanced the interpretation of findings and revealed how structured exposure to culturally responsive concepts might influence teachers' perceptions. This methodological framework provided a focused yet layered understanding of teacher readiness for CR teaching in dual language settings.

The primary data collection method consisted of three parts. Part 1 was a survey to collect information about the participants' demographics and teaching experiences (see Appendix A). Participants provided details such as gender, race or ethnicity, whether English was their first language, and years of teaching experience.

Part 2 of the survey outlined the participants' PD experiences and their understanding of CR teaching (see Appendix B). It starts with questions regarding whether participants had received any CR teaching-focused PD and, if so, how many hours they had completed in the year leading up to the survey, with options ranging from less than 5 to more than 20 hours. Participants were then asked to rate their confidence in implementing CR teaching practices on a scale from 0 to 100. Finally, they were encouraged to describe what CR teaching means to them, allowing for personal insights and interpretations of the concept. Part 2 was designed to assess both the extent of participants' PD in CR teaching and their perceived readiness to apply these practices in their classrooms.

Part 3 included all 40 items from Siwatu's (2007) CRTSE Scale (see Appendix C). Participants rated their confidence in implementing CR teaching practices on a scale from 0 to

100, which is psychometrically more robust than the traditional Likert scale (Siwatu, 2007). Responses to this scale offered valuable insights into teachers' classroom practices regarding specific tasks linked to culturally responsive pedagogy.

The Researcher

The researcher is a Hispanic, cisgender, heterosexual woman who immigrated to the United States. Her background as an immigrant enriches her perspective and informs her research in education, cultural responsiveness, and multilingualism. Having experienced second-language acquisition firsthand, she deeply understands the challenges and nuances of learning a new language. This experience further enhances her insight into multilingual students' and teachers' needs and experiences. As a female researcher, she provides a unique and valuable viewpoint, contributing to a diverse and inclusive academic community.

At the time of the study, the researcher had over 23 years of experience in education and served as the Director of Bilingual Education in a New Jersey school district. Before this role, she held positions as a Supervisor of Bilingual Education, an Instructional Coach, a teacher in a transitional bilingual setting, and a bilingual language arts teacher for Grades 6–8. Additionally, she taught in a TWDL setting. Her varied experience across different roles within dual language education provided her with a comprehensive understanding of the field, enabling her to effectively lead and support bilingual programs and teachers.

Study Setting and Participants

The study was conducted in New Jersey and involved dual language teachers to provide diverse and relevant perspectives related to the research questions. The sampling focused on participants from both public and private sectors in dual language education settings, which enriched the study's depth and comprehensiveness.

Participants and Recruitment

After obtaining Institutional Review Board (IRB) approval, this study recruited New Jersey K–6 dual language teachers to participate in a survey examining their perceptions of CR teaching capabilities. To ensure alignment with the study’s focus, participants were required to be currently employed as dual language teachers within a K–6 setting in New Jersey.

Recruitment efforts were initiated through email outreach. A recruitment email, including an invitation to participate in the study and a survey link, was sent to New Jersey superintendents, directors, supervisors, principals, and PD consulting firms to distribute to their dual language teachers. Additionally, the same email was shared with dual language PD consultants to expand outreach to a broader network of eligible participants.

Potential participants were asked to review the study criteria, confirming their eligibility as K–6 dual language teachers in New Jersey. Those who met the requirements and agreed to participate accessed the survey via the Qualtrics platform. To maximize response rates, a follow-up email was sent 2 weeks after the initial invitation, with a final reminder distributed before the survey closed. These strategies were aimed to ensure a diverse and representative sample of dual language teachers across the state.

A total of 51 participants completed the survey, providing valuable insights into their experiences and perspectives on CR teaching. Table 2 includes participants’ demographic and experience background, including gender, years of teaching experience, grade levels taught, program types, and multilingual status.

Table 2*Participant Demographic and Experience Background*

Demographic	Number of participants
Age	
Under 25	0
25–34	10
35–44	15
45–54	14
55–64	10
65 or older	2
Gender	
Female	47
Male	4
Nonbinary/third gender	0
Prefer not to say	0
Ethnicity–race	
Hispanic or Latino	39
White	8
Black or African American	3
Native American or American Indian	0
Asian–Pacific Islander	0
Other	1
Prefer not to say	0
Highest degree	
Bachelor’s degree	13
Master’s degree	33
Doctoral degree	4
Other	1

Demographic	Number of participants
Years of teaching experience	
Less than 1 year	0
1–3 years	4
4–6 years	2
7–10 years	9
More than 10 years	36
Years teaching in a dual language	
Less than 1 year	5
1–3 years	13
4–6 years	14
7–10 years	6
More than 10 years	13
Current teaching grade	
Pre-K	1
Kindergarten	11
1st Grade	8
2nd Grade	3
3rd Grade	7
4th Grade	9
5th Grade	8
6th Grade	4
English as a first language	
Yes	13
No	38
Multilingualism	
I am not multilingual	7
English	0
Spanish	40
Chinese (Mandarin, Cantonese, etc.)	1
French	0

Demographic	Number of participants
Multilingualism	
German	0
Arabic	1
Other	2
Teaching endorsements & training	
Bilingual, bicultural, and/or ESL	23
Sheltered English instruction training	5
Bilingual, bicultural, and/or ESL and SEI	18
No endorsements or training	5
Type of dual language program	
OWDL	28
TWDL	23

Note. $N = 51$.

Data Collection

The CRTSE Scale

The CRTSE Scale, developed by Dr. Kamau Oginga Siwatu (2007), is a tool designed to measure teachers' confidence in implementing CR teaching practices. The CRTSE Scale assesses various teaching aspects that address students' diverse cultural and linguistic backgrounds (see Appendix C).

The intersection of the five dimensions of multicultural education and CR teaching emphasizes incorporating students' cultural backgrounds and experiences into all aspects of education. CR teaching practices are closely aligned with the principles and goals of multicultural education. Siwatu's (2007) CRTSE Scale statements were categorized under the appropriate multicultural dimension. As shown in Appendix D, CR teaching operationalizes the five dimensions of multicultural education within the classroom context, promoting inclusion, equity, and empowerment among diverse student populations.

Participants responded to an electronic survey designed with Qualtrics. The survey, which consisted of three sections, served to collect data for this study. The first section included questions regarding the participants' demographic details, language background, and teaching characteristics. The second section was used to ask whether they received any CR teaching training. At the end of this section, participants recorded their definition of CR teaching.

The third section contained a 40-statement survey using a Likert-type scale to assess their CR teaching classroom practices. These 40 statements were based on the validated CRTSE Scale (Siwatu, 2007). For this research, the statements aimed to measure teachers' perceptions of CR teaching practices rather than their self-efficacy. The CRTSE Scale collected data from teachers in OWDL and TWDL programs regarding the implementation of specific teaching practices related to CR teaching. The CRTSE Scale was validated through a pilot study to establish its factor structure and internal and external reliability (Siwatu, 2007). Internal reliability for the 40-item measure was .96, as estimated by Cronbach's alpha. This study used the original set of items without any modifications. Furthermore, the 40 statements were categorized according to Banks's (2006) five dimensions of multicultural education, with the CRTSE Scale serving as a framework for this classification (see Appendix D).

In line with Bandura's (1997) belief that self-efficacy scales should include items with varying levels of difficulty, the CRTSE Scale used in this study incorporated teaching practices that ranged from more accessible to more challenging tasks. This approach was designed to prevent ceiling effects and offer insights into the practices individuals feel most and least confident in executing. The "easy" end of this continuum included statements related to general teaching practices, such as "I can use a variety of teaching methods" and "I can build a sense of trust with my students." Conversely, the "difficult" end featured statements related to more

culturally sensitive and responsive practices, such as “I am able to teach students about their cultures’ contributions to science” and “I am able to implement strategies to minimize the effects of the mismatch between my students’ home culture and the school culture.” Participants evaluated their confidence in executing CR teaching practices on a scale from 0 to 100. This aligns with Bandura’s (1997) suggestion for a more detailed measurement of self-efficacy beliefs.

Data Analysis

The RQs formed the basis of this study, which explored the perceptions and practices of elementary dual language teachers concerning CR teaching. The methodology employed in this study aimed to offer comprehensive insights into the factors influencing CR teaching effectiveness, ultimately contributing to a more inclusive and equitable educational environment for all students.

RQ1

RQ1: How do dual language teachers in New Jersey understand the meaning of CR teaching, and does this understanding shift after they complete the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) survey? This question was used to explore whether the teachers’ understanding of CR teaching evolves after they complete the 40-statement CRTSE Scale and identifies any significant themes in their responses to the open-ended questions.

RQ2

RQ2: How do elementary dual language teachers in New Jersey perceive their abilities to implement CR teaching practices in their classrooms? This question was intended to understand the self-perceived efficacy of dual language teachers in using these strategies. Understanding

these perceptions was essential because they can significantly influence how teachers design and deliver instruction that caters to their students' cultural and linguistic diversity.

RQ2a

RQ2a: Does perceived self-efficacy levels differ between New Jersey elementary one-way dual language (OWDL) teachers and those in two-way dual language (TWDL) programs? This question compared the CR teaching perceptions of teachers in OWDL programs, where students primarily come from a single linguistic background, with those in TWDL programs, which typically involve a more balanced representation of students from diverse linguistic and cultural backgrounds. The comparison was aimed to determine whether the type of program influences teachers' confidence and practices in implementing CR teaching.

RQ2b

RQ2b: Does perceived self-efficacy differ between New Jersey elementary dual language teachers who participated in CR teaching PD and those who did not? This question was intended to explore the influence of PD on teachers' perceptions of CR teaching. Considering the significance of PD in providing teachers with essential skills and knowledge for effectively implementing CR teaching practices, this inquiry assessed whether participation in CR teaching PD results in higher self-efficacy and improved CR teaching practices.

RQ2c

RQ2c: Do teachers whose first language is not English or who are multilingual perceive their self-efficacy in CR teaching differently compared to those who only speak English? This question served to explore whether a teacher's linguistic background influences their perceptions of CR teaching. Multilingual teachers may offer unique perspectives and skills in the classroom, enhancing their ability to connect with and support students from diverse cultural backgrounds.

This inquiry was aimed to determine if these linguistic differences result in variations in CR teaching efficacy.

RQ3

RQ3: Which of the five dimensions of multicultural education do New Jersey dual language teachers engage with the most, and which dimension do they engage with the least? This question was asked to explore the specific aspects of multicultural education that dual language teachers prioritize in their teaching practices. By identifying the dimensions that receive the most and least engagement, the study was aimed to provide insights into areas for potential professional growth and development in CR teaching practices.

The survey structure allowed for the collection of pertinent information. Part 1 included questions to gather data such as gender, race and ethnicity, whether English was the participants' first language, and their years of teaching experience (see Appendix A). Descriptive statistics were used to report the results of the information collected from this survey.

Part 2 collected data on whether the participants had been trained in CR teaching practices (see Appendix B). This demographic data provided context for understanding the sample of dual language teachers participating in the study and allowed for the comparison of data between OWDL and TWDL teachers with and without CR teaching PD. Descriptive statistics were used to report the results from the information collected with this survey, except for the two questions asking the participants to describe their meaning of CR teaching.

Part 3 of the survey consisted of 40 items from the CRTSE Scale (Siwatu, 2007), which facilitated the gathering of perceptions and experiences related to CR teaching PD and the implementation of multicultural education practices (see Appendix C). Participants were asked to rate their confidence in their ability to engage in or execute specific CR teaching practices by

indicating a degree ranging from 0 (*no confidence at all*) to 100 (*completely confident*).

Participants' responses to each of the 40 items were then summed up and divided by 40 to generate a total mean score, which could range from 0 to 100. Those with higher scores on the CRTSE Scale demonstrated a greater ability to execute CR teaching practices than did those with lower scores. The descriptive and inferential statistics, except for the two open-ended questions regarding the teachers' interpretation of CR teaching, were used to report the results from the information collected through this survey.

Summary

Chapter III outlined the methods employed in this study to explore dual language teachers' perceptions of self-efficacy regarding the implementation of CR teaching practices. The chapter detailed the research design, which utilized a quantitative descriptive research method centered on quantitative data collection through a demographic survey and the CRTSE Scale. Additionally, participants responded to two open-ended questions intended to supplement and contextualize the quantitative findings by offering insights into their conceptual understanding of CR teaching before and after completing the CRTSE Scale.

The chapter also described the participant selection and recruitment process, as well as the data collection procedures. Analytical approaches included statistical analysis for the CRTSE data and a descriptive examination of the open-ended responses to support the interpretation of the quantitative results. The rationale for this quantitative descriptive design was grounded in the study's objective to measure teachers' perceived capabilities in CR teaching while providing a deeper understanding of the factors that influence those perceptions. This approach ultimately aimed to inform the design of professional development initiatives that better support dual language teachers.

CHAPTER IV. RESULTS

Overview of Data Analysis

Table 3 outlines the research questions for this study and the corresponding data analysis methods. RQ1 was used to examine how dual language teachers in New Jersey understand CR teaching and whether their initial understanding shifts after completing the CRTSE Scale, which is analyzed through thematic analysis of open-ended responses. RQ2 was aimed to investigate teachers' self-efficacy in implementing CR teaching practices, using descriptive statistics to compare responses across different program types, PD experience, and language proficiency. Additionally, RQ2a–RQ2c were used to further explore whether perceptions of self-efficacy vary among these groups by employing a nonparametric test known as the Mann-Whitney U Test. Finally, RQ3 served to identify which of the five dimensions of multicultural education teachers engage with the most and least, utilizing descriptive statistics to analyze trends within the dataset.

Table 3

Data Analysis Methods for RQs

RQ description	Data analysis method
RQ1 explored how NJ dual language teachers understand the meaning of CR teaching and whether the initial meaning changed after completing the CRTSE Scale survey.	Inductive thematic analysis was used to analyze the data gathered from the two open-ended questions.
RQ2 explored how NJ elementary dual language teachers perceive their abilities to implement CR teaching practices in their classrooms.	Descriptive statistics was first used to report the analyzed data both as a whole and by group: Factor 1: OWDL vs. TWDL teachers, Factor 2: CR teaching PD teachers vs. non-CR teaching PD teachers, and Factor 3: English-only speaking teachers vs. multilingual teachers.

RQ description	Data analysis method
RQ2a–RQ2c further examined whether perceptions differed in implementing CR teaching practices between the following groups: OWDL program teachers and teachers TWDL program teachers; teachers who received CR teaching PD and those who did not; and between multilingual teachers and those who only speak English.	The Mann-Whitney U test was used to examine significance tests in mean differences of self-efficacy based on OWDL/TWDL program type, CR teaching PD status (yes/no), and language (English only/multilingual).
RQ3. Which of the five dimensions of multicultural education do NJ dual language teachers engage with the most, and which dimension do they engage with the least?	Descriptive statistics were used to report by dimension.

Data Preparation

The data for this study were collected using Qualtrics, an online survey platform, and subsequently exported to a Google Spreadsheet for initial organization and descriptive statistical analysis. The responses were cleaned in the Google Spreadsheet to ensure that all entries were complete and properly formatted for analysis. Descriptive statistics, including means, standard deviations, and frequency distributions, were generated to provide an overview of the data, facilitating an initial understanding of trends and patterns before conducting inferential statistical tests.

For inferential analysis, the dataset was imported into SPSS, where statistical tests were conducted to examine significant differences among teacher groups and aspects of multicultural education. Additionally, responses from open-ended survey questions were manually analyzed in Word documents using thematic analysis to identify recurring patterns and themes in teachers'

perceptions of CR teaching. SPSS was selected for its robust statistical capabilities, ensuring accuracy and reliability in the inferential analyses.

This data analysis approach offered a thorough examination of NJ dual language teachers' perceptions and self-efficacy regarding CR teaching. The combination of thematic analysis and quantitative statistical testing provides a strong understanding of how dual language teachers conceptualize and implement culturally responsive practices in their classrooms.

A total of 136 participants initially began the survey; however, 85 did not finish it. Consequently, the final dataset comprised 51 completed responses that were used for analysis.

The data preparation process included the following steps:

1. Data cleaning: Incomplete responses were eliminated, ensuring that only fully completed surveys were considered.
2. Data organization: Responses were classified according to teacher demographics (e.g., program type, CR teaching PD status, and language proficiency).
3. Coding for open-ended questions: Responses to the open-ended questions were analyzed using thematic analysis, categorizing emerging themes to reflect teachers' perceptions of CR teaching both before and after completing the CRTSE Scale.
4. Preparation for statistical analysis: Quantitative survey responses were coded numerically and organized for statistical testing. Self-efficacy scores were calculated using the CRTSE Scale.

Data Analysis Methods

RQ1. Thematic Analysis of Teachers' Understanding of CR Teaching

To examine how dual language teachers in New Jersey define and perceive CR teaching, thematic analysis was conducted on responses to two open-ended survey questions. This

approach was chosen to identify patterns and themes within the open-ended responses. The analysis began with familiarization, during which responses were read multiple times to develop a deep understanding of the data. Next, initial coding was applied to capture emerging ideas, allowing key themes to surface naturally. These themes were then categorized, revealing common patterns such as CR teaching as cultural representation, fostering an inclusive environment, and instructional practices. Finally, a comparison of pre- and post-survey responses was conducted to assess shifts in teachers' understanding of CR teaching before and after engaging with the CRTSE statements.

RQ2. Descriptive Statistics and Inferential Testing on Self-Efficacy in Implementing CR Teaching

Descriptive statistics were employed to analyze teachers' self-efficacy in implementing CR teaching practices. The data were analyzed both comprehensively and according to three grouping factors:

- Program type: OWDL (coded as 1) compared to TWDL teachers (coded as 0).
- PD: Teachers who received CR teaching PD (coded as 1) compared to those who did not (coded as 0).
- Language proficiency: English-only speaking teachers (coded as 0) compared to multilingual teachers (coded as 1).

The Mann-Whitney U tests were employed to further investigate whether the mean differences in self-efficacy among these groups are significant. Independent samples of Mann-Whitney U tests were carried out to compare mean self-efficacy scores between OWDL and TWDL teachers, teachers with and without CR teaching PD, and multilingual and English-only teachers.

RQ3. Engagement with Multicultural Education Dimensions

To analyze the RQ3 data, descriptive statistics were used to evaluate teacher engagement across the five dimensions of multicultural education. The researcher categorized the 40 statements from the CRTSE Scale (Siwatu, 2007) according to the most suitable multicultural education dimension (Banks, 2006). Each statement was assigned to one of the five dimensions—Content Integration, Knowledge Construction Process, Prejudice Reduction, Equity Pedagogy, and Empowering School Culture and Social Structure—based on its emphasis and intent.

During the categorization process, the researcher worked with two experts in bilingual education to ensure the content validity of the selected statements related to each dimension. The first participant is an experienced ESL educator, instructional coach, and teacher trainer. She has supported MLs from kindergarten through 12th grade and in higher education. Her work in teacher training and curriculum development aligns with equitable pedagogy, ensuring culturally responsive instruction that meets diverse student needs.

The second participant has more than 45 years of experience in bilingual and dual language education. She pioneered New Jersey's first dual language immersion program and has shaped multilingual education through program development and teacher training. Her efforts reflect an empowering school culture that fosters inclusive, linguistically affirming learning environments.

Statements unanimously categorized by the two experts and the researcher were kept under their respective dimensions. For those without unanimous agreement, a meeting was held to discuss until consensus was achieved. This collaborative process strengthened the alignment of CRTSE statements with Banks's (2006) five dimensions and ensured consistency in

categorization. Of the 40 statements, 28 were initially agreed upon, while 12 needed further discussion. Through deliberation, the researcher and participants reexamined interpretations, ultimately reaching consensus on all statements. After categorizing, the analysis assessed teacher confidence levels for the statements within each dimension to determine which dimension they engaged with the most and the least.

Data Preparation and Coding

Teacher responses were categorized based on their self-reported engagement with each dimension of multicultural education as defined by Banks (2006). The five dimensions examined included Content Integration, Knowledge Construction Process, Prejudice Reduction, Equity Pedagogy, and Empowering School Culture and Social Structure.

Survey responses were coded numerically to quantify engagement levels, and mean scores were calculated for each dimension to provide a clearer understanding of teachers' engagement with multicultural education. Descriptive statistics, including means and standard deviations, were computed to determine which dimensions had the highest and lowest levels of engagement.

Mean scores were used to interpret engagement levels. Higher values indicated more frequent engagement with a particular dimension, while lower mean scores suggested limited engagement and potential gaps in implementation. Differences between groups were carefully analyzed to determine whether specific factors, such as participation in PD or program type, influenced engagement levels. This analytical approach offered a clear comparison of engagement across the five dimensions of multicultural education, providing insights into areas where teachers showed confidence and identifying aspects that may need further support and PD.

Presentation of the Findings

The findings are presented below and organized by order of research questions.

RQ1

RQ1: How do dual language teachers in New Jersey understand the meaning of CR teaching, and does this understanding shift after they complete the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) survey?

RQ1 served to examine how dual language teachers in New Jersey understand CR teaching and whether their initial perceptions changed after completing the CRTSE Scale survey. The responses to the two open-ended questions included in both the pre- and postsurveys were analyzed thematically, enabling a deeper exploration of the teachers' evolving concepts of CR teaching.

Thematic analysis was selected as the method for identifying, analyzing, and interpreting patterns (themes) within the two open-ended questions. Responses were coded, categorized, and organized into emerging themes that provided insights into (a) teachers' early perceptions of CR teaching, and (b) changes in or support for their beliefs following the survey.

The coding process was inductive, meaning that themes emerged directly from the data instead of being imposed by preexisting frameworks. Figure 2 shows the seven emerging themes and a brief description of each. Patterns and themes were analyzed in both pre- and post-survey responses to evaluate how teachers' perceptions evolved, as illustrated in Table 4.

Figure 2

Emerging Themes from Pre and Post Definitions of CR Teaching



Table 4*Emerging Themes from Pre- and Postsurvey Responses*

Theme	Presurvey response	Postsurvey response
CR teaching as cultural representation	Many teachers associated CR teaching with incorporating students' cultures, traditions, and backgrounds into the classroom. They emphasized diverse representation in books, materials, and classroom discussions.	Teachers expressed a deeper awareness that CR teaching extends beyond cultural representation to include pedagogy, curriculum, assessments, and student-teacher relationships. Some noted they initially underestimated its complexity.
Multicultural awareness vs. CR teaching	Some teachers equated CR teaching with multicultural education, focusing on exposing students to different cultures rather than adapting instruction to meet cultural needs.	Teachers recognize that CR teaching is not just about cultural exposure but requires instructional changes that reflect and support students' diverse needs.
Fostering an inclusive environment	Some responses indicated that CR teaching meant creating a welcoming and respectful classroom where students felt valued. However, responses lacked details on specific instructional strategies to make teaching more responsive to students' cultures.	Teachers acknowledged that CR teaching also involves deeper instructional strategies, such as differentiated instruction and culturally relevant pedagogy, to actively engage students.
Limited attention to assessment and pedagogy	Few teachers initially mentioned culturally responsive assessments, instructional differentiation, or curriculum adaptation. CR teaching was perceived more as a social-emotional or relational practice rather than an instructional framework.	A notable shift was the increased awareness of the role of assessment in CR teaching. Some teachers acknowledged that standardized tests may be culturally biased and that adapting assessments is essential.
Recognizing CR teaching as an ongoing learning process	Not explicitly mentioned in presurvey responses.	Several teachers acknowledged the need for continuous PD and self-reflection. They realized that student demographics change over time, requiring constant instructional adaptation.
Challenges in implementation	Not explicitly mentioned in presurvey responses.	Some teachers recognized barriers to fully implementing CR teaching, including district-mandated curriculum, standardized testing requirements, and limited instructional flexibility.
Beyond cultural inclusion: Instructional practices	Not a dominant theme in presurvey responses.	Some teachers expanded their understanding to include differentiated instruction, scaffolding, and student-centered learning, shifting from a cultural focus to a pedagogical perspective.

In addition to the emerging themes presented in Table 4, further analysis of the pre- and postsurvey responses revealed three key insights into teachers' comprehension of CR teaching. Before completing the CRTSE Scale survey, many teachers associated CR teaching mainly with cultural representation and inclusion rather than with instructional strategies, assessment, or systemic barriers. Their initial responses indicated a focus on creating a welcoming classroom environment instead of actively adapting teaching practices to meet the needs of diverse learners. One teacher remarked, "I had the impression that it was just about culture. It also involves lessons, assessments, communication, etc." This shift highlights how some teachers started to recognize that CR teaching encompasses more than just incorporating diverse cultural materials; it also involves addressing instructional decision-making.

After completing the survey, some teachers demonstrated a broader understanding of CR teaching, acknowledging its connection to pedagogy, student engagement, and equitable assessments. Several responses reflected an increased awareness of the bias present in standardized testing, as one teacher noted, "I noticed that I need to learn how to identify ways that standardized tests may be biased against culturally diverse students." Similarly, another teacher recognized that CR teaching involves more than simply fostering cultural connections, stating, "It is more than giving students an opportunity to connect with their learning. It includes identifying learning styles, school and family relationships, creating bonds with both students and parents, and being receptive to each child's individual background." These reflections suggest that for some teachers, CR teaching has evolved from a cultural focus to a more instructional and pedagogical approach.

While some teachers gained insight into implementing CR teaching, others became increasingly aware of external constraints that limit its full adoption. Rigid curricular

requirements, lack of instructional autonomy, and standardized assessments that fail to reflect student diversity were often cited as barriers. One teacher voiced frustration:

Many times we have to follow the curriculum, and as educators, we do not have many opportunities to change it. I try my best to add culturally responsive teaching whenever possible, but there are many times, especially in ELA, where the story we have to read is not appropriate for our student population because they cannot relate to it, but we are forced to read it to them anyway.

These comments reflect the challenges teachers encounter in balancing mandated curriculum with the desire to effectively implement CR teaching practices.

The thematic analysis indicates that while some teachers' perceptions of CR teaching remained unchanged, others developed a more expanded and nuanced understanding after completing the survey. Many teachers transitioned from viewing CR teaching merely as the incorporation of culture to recognizing it as a complex instructional approach that involves assessment, pedagogy, and equity. Additionally, some teachers became more aware of the systemic barriers that impede the full implementation of CR teaching, emphasizing the need for ongoing PD, policy changes, and instructional support. This deeper analysis provides insight into how professional learning opportunities (in this case, exposure to the CRTSE Scale) can influence teachers' conceptualizations of CR teaching and highlight areas for further growth and institutional support.

RQ2

RQ2: How do elementary dual language teachers in New Jersey perceive their abilities to implement CR teaching practices in their classrooms?

To examine teachers' perceptions of their ability to implement CR teaching practices, descriptive statistics were analyzed across various categories: overall confidence levels, program type OWDL versus TWDL, PD participation, and multilingual status.

On average, teachers reported a confidence level of 62.16 among all participants (see Table 5). This suggests that while some teachers feel highly capable of implementing CR teaching practices, others indicate significantly lower self-efficacy. As shown in Figure 3, the wide range of confidence levels reflects variability in teachers' perceived preparedness and experience with CR teaching strategies.

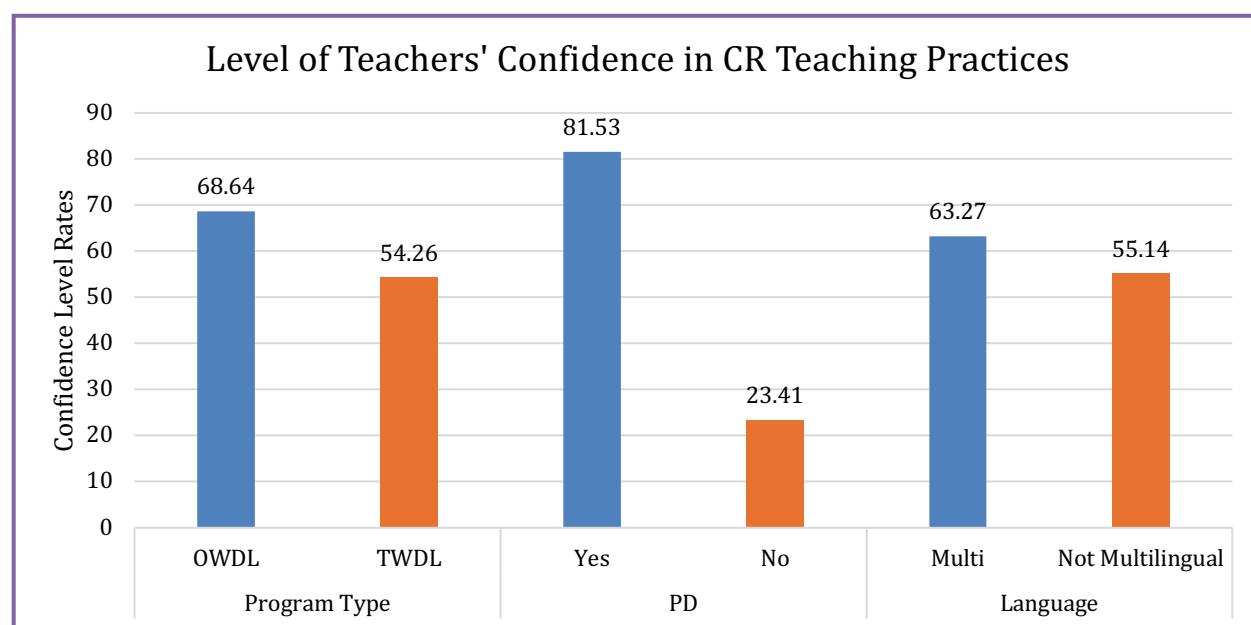
Table 5

Mean Score and Standard Deviations of the CRTSE Survey by Category

All	Program type		PD		Language	
Mean 62.16	OWDL <i>N</i> = 28	68.64	Yes <i>N</i> = 34	81.53	Multi <i>N</i> = 44	63.27
<i>N</i> = 51	TWDL <i>N</i> = 23	54.26	No <i>N</i> = 17	23.41	Not multilingual <i>N</i> = 7	55.14

Figure 3

Level of Teachers' Confidence in CR Teaching Practices



Note. Teachers' confidence levels based on program type, professional development (PD), and language background.

As shown in Table 6, mean differences between the two groups based on various factors were identified. Consequently, Mann-Whitney U tests were conducted to assess whether these mean scores significantly differed.

Table 6

Results by Categories

Category	Mann-Whitney U score	<i>p</i> value
Program	292.50	.57
PD	138.00	.003*
Language	126.00	.443

* $p < .05$.

Teachers in OWDL programs reported greater confidence ($M = 68.64$) compared to their TWDL counterparts ($M = 54.26$). This finding suggests that OWDL teachers might feel more secure in their ability to apply CR teaching strategies. As indicated in Table 6, the difference between OWDL and TWDL teachers was not statistically significant ($U = 292.50, p = .57$). This implies that while OWDL teachers may self-report higher confidence, this difference is not substantial enough to be considered meaningful in a statistical context. However, there was a significant difference between teachers who had received PD and those who had not ($U = 138.00, p = .003$).

A greater difference emerged when examining the role of PD in CR teaching. Teachers who participated in CR teaching-focused PD reported significantly higher confidence ($M = 81.53$) compared to those who had not received PD ($M = 23.41$). The Mann-Whitney U test confirmed this difference as statistically significant ($U = 138.00, p = .003$), indicating that PD plays a crucial role in shaping teachers' perceptions of their ability to implement culturally

responsive practices. The data were also explored to determine whether teachers' language backgrounds influenced their self-efficacy in CR teaching. Multilingual teachers reported slightly higher confidence levels ($M = 63.27$) compared to their monolingual (English-only) colleagues ($M = 55.14$). However, the Mann-Whitney U test revealed no significant difference between these groups ($U = 126, p = .443$), suggesting that being multilingual does not necessarily correlate with feeling more capable of implementing CR teaching strategies.

The Mann-Whitney U test confirmed this difference as statistically significant ($U = 138.00, p = .003$), indicating that PD plays a crucial role in shaping teachers' perceptions of their ability to implement culturally responsive practices. The data were also explored to determine whether teachers' language backgrounds influenced their self-efficacy in CR teaching. Multilingual teachers reported slightly higher confidence levels ($M = 63.27$) compared to their monolingual (English-only) colleagues ($M = 55.14$). However, the Mann-Whitney U test revealed no significant difference between these groups ($U = 126, p = .443$), suggesting that being multilingual does not necessarily correlate with feeling more capable in implementing CR teaching strategies or indicate that PD plays a crucial role in boosting teachers' confidence in implementing CR teaching, while program type and multilingual status have a less significant effect. These insights highlight the need for ongoing CR teaching-focused training opportunities to ensure all dual language teachers feel prepared to create inclusive, culturally responsive learning environments.

RQ3

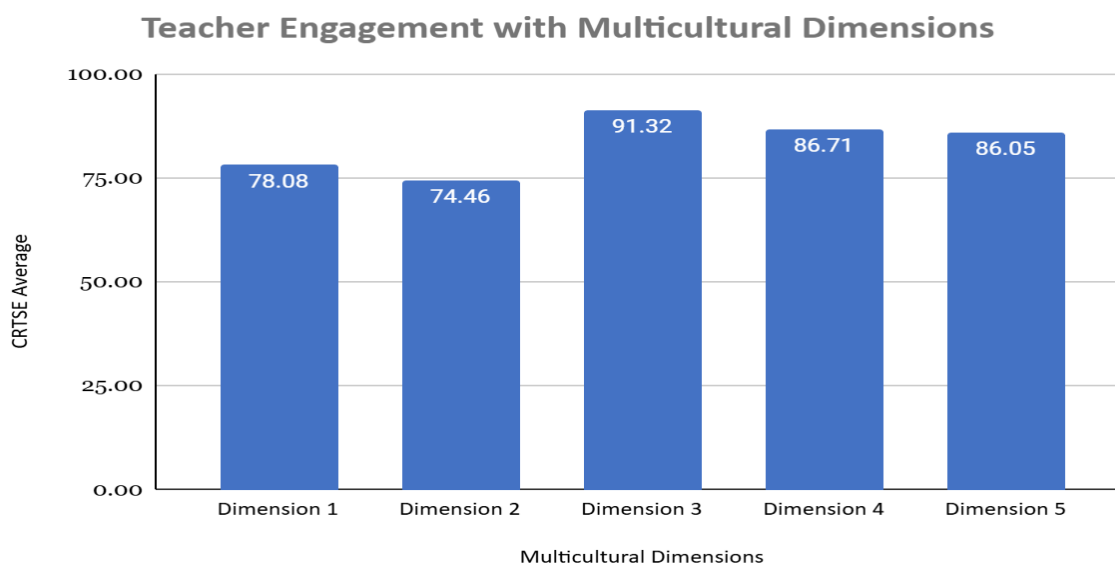
RQ3: Which of the five dimensions of multicultural education do New Jersey dual language teachers engage with the most, and which dimension do they engage with the least?

RQ3 was aimed to identify which of the five dimensions of multicultural education New Jersey dual language teachers engaged with the most and the least. To achieve this, teacher confidence levels were assessed across the five dimensions based on their responses to the CRTSE Scale statements, which were categorized under the relevant multicultural education dimensions.

The descriptive statistical analysis revealed varying levels of engagement across the five dimensions of multicultural education. As depicted in Figure 4, the highest level of engagement was observed in Dimension 3: Prejudice Reduction ($M = 91.32$), followed by Dimension 4: Equity Pedagogy ($M = 86.71$) and Dimension 5: Empowering School Culture and Social Structure ($M = 86.05$). The dimensions with the lowest levels of engagement were Dimension 1: Content Integration ($M = 78.08$) and Dimension 2: Knowledge Construction Process ($M = 74.46$).

Figure 4

Teacher Engagement With Multicultural Dimensions



Summary

The findings from this study emphasize key factors that influence teachers' confidence in implementing CR teaching practices. The most significant takeaway is the impact of PD.

Teachers who received PD specifically focused on CR teaching reported significantly higher confidence in their ability to apply these strategies, highlighting the importance of targeted training in shaping teachers' self-efficacy. This finding suggests that structured PD opportunities can play a crucial role in equipping teachers with the skills and knowledge necessary to create inclusive and responsive learning environments.

In contrast, the type of program appeared to have minimal impact on teachers' perceptions of their self-efficacy in CR teaching. Although OWDL teachers reported slightly higher confidence levels than their TWDL counterparts, the difference was not statistically significant. This suggests that merely teaching in one program type over another does not significantly shape teachers' beliefs in their ability to implement CR teaching practices. Other factors, such as individual experience or school-level support, may have a greater influence on teachers' confidence.

Similarly, multilingualism by itself did not appear to be a decisive factor in teachers' self-efficacy. Although multilingual teachers reported somewhat more confidence than their monolingual counterparts, this difference was also not statistically significant. This finding indicates that language background alone does not necessarily lead to increased confidence in implementing CR teaching strategies. Instead, other factors—such as training, experience, and school-based support—may play a more crucial role in influencing teachers' perceptions of their readiness for CR teaching.

Furthermore, the descriptive statistical analysis showed differing levels of engagement across the five dimensions of multicultural education. As previously illustrated in Figure 4, the highest level of engagement occurred in Dimension 3: Prejudice Reduction ($M = 91.32$), followed by Dimension 4: Equity Pedagogy ($M = 86.71$) and Dimension 5: Empowering School Culture and Social Structure ($M = 86.05$). The dimensions with the lowest levels of engagement were Dimension 1: Content Integration ($M = 78.08$) and Dimension 2: Knowledge Construction Process ($M = 74.46$). These findings indicate that while teachers are actively working to reduce prejudice and promote equitable pedagogy, there may be deficiencies in their ability to integrate diverse content and encourage students to critically assess the knowledge construction process.

Overall, these findings emphasize the need for intentional and structured PD as a key driver of CR teaching self-efficacy. While factors such as program type and multilingualism may affect teachers' experiences, they do not seem to be the most influential elements. Additionally, the varying levels of engagement across multicultural education dimensions indicate areas where further support or resources might be necessary. Future efforts to enhance CR teaching implementation should prioritize PD opportunities that equip teachers with the tools and strategies needed to effectively foster culturally responsive and inclusive learning environments.

CHAPTER V. DISCUSSION

Interpretation of Results

This study was conducted to examine dual language teachers' self-efficacy in implementing CR teaching practices through the lens of three research questions:

RQ1: How do dual language teachers in New Jersey understand the meaning of CR teaching, and does this understanding shift after they complete the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) survey?

RQ2: How do elementary dual language teachers in New Jersey perceive their ability to implement CR teaching practices in their classrooms?

RQ2a: Do perceived self-efficacy levels differ between New Jersey elementary one-way dual language (OWDL) teachers and those in two-way dual language (TWDL) programs?

RQ2b: Does perceived self-efficacy differ between New Jersey elementary dual language teachers who participated in CR teaching PD and those who did not?

RQ2c: Do teachers whose first language is not English or who are multilingual perceive their self-efficacy in CR teaching differently compared to those who speak only English?

RQ3: Which of the five dimensions of multicultural education do New Jersey dual language teachers engage with the most, and which dimension do they engage with the least?

RQ1: Teacher Understanding of CR Teaching

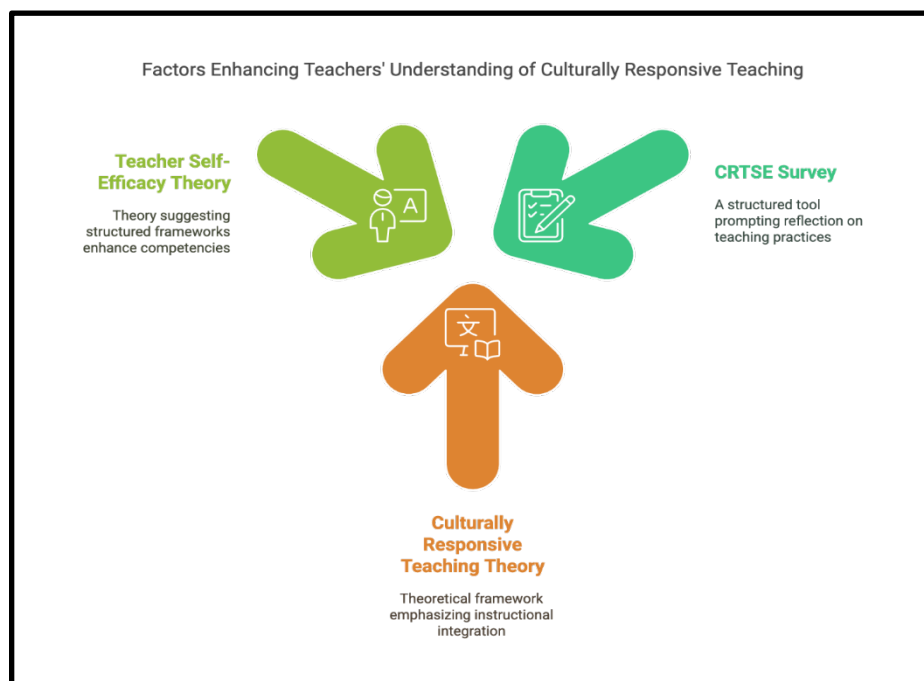
The results suggest that teachers' initial understandings of CR teaching were generally broad, emphasizing inclusivity, affirming student identities, and cultural awareness. However,

after completing the CRTSE Scale, some teachers showed a more nuanced understanding, integrating instructional strategies that are explicitly linked to CR teaching. This aligns with the CR teaching theory (Gay, 2018; Ladson-Billings, 1995), which highlights that teachers must move beyond cultural appreciation to incorporating instructional practices that genuinely affirm students' diverse backgrounds.

Furthermore, the teacher self-efficacy theory (Bandura, 1997; Siwatu, 2007) suggests that exposure to structured frameworks, such as the CRTSE Scale, can enhance teachers' perceived competencies. In this study, teachers' participation in the CRTSE Scale seems to have served as a reflective tool, encouraging them to think about aspects of CR teaching that they might not have previously expressed. This finding supports earlier research indicating that structured self-assessments and PD opportunities can help teachers understand and implement culturally responsive pedagogy more effectively (Siwatu, 2011; see Figure 5).

Figure 5

Factors Enhancing Teachers' Understanding of CR Teaching



(Bandura, 1997; Gay, 2018; Ladson-Billings, 1995; Siwatu, 2007)

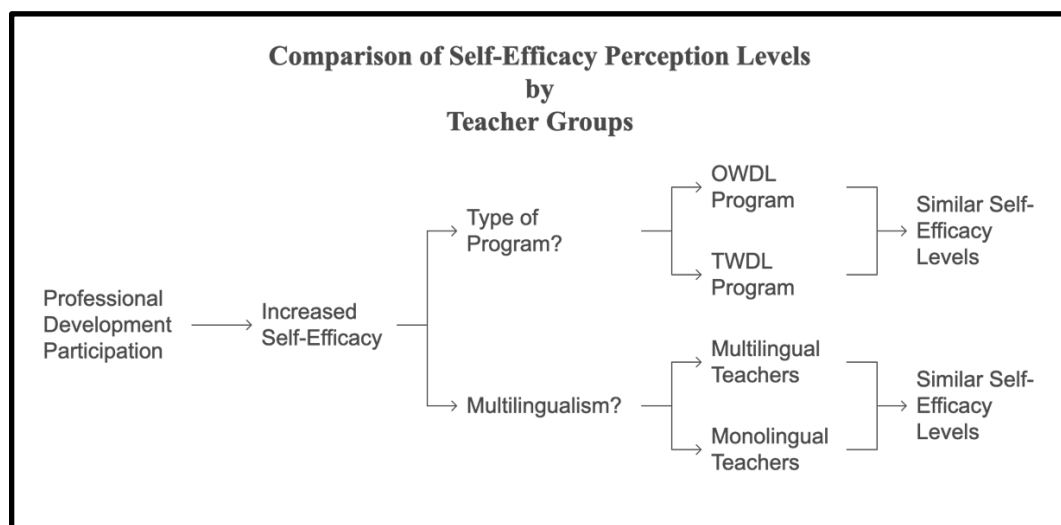
RQ2: Perceptions of Self-Efficacy in Implementing CR Teaching by Teacher Groups

A key finding of this study is that PD significantly affects teachers' self-efficacy in CR instruction (see Figure 6). Teachers who participated in PD related to CR teaching exhibited greater confidence in their ability to implement CR practices compared to those who did not receive such training. This supports the teacher self-efficacy theory, which suggests that mastery experiences, such as targeted PD, are among the strongest predictors of teacher confidence in instructional practices (Bandura, 1997). Furthermore, the findings align with the CR teaching theory, highlighting the need for ongoing, structured learning experiences to help teachers effectively apply CR practices in their classrooms (Gay, 2018).

Conversely, the type of program (OWDL vs. TWDL) and multilingualism were not significantly associated with differences in self-efficacy. While OWDL teachers reported slightly higher confidence levels than did TWDL teachers, this difference was not statistically significant. Similarly, multilingual teachers did not show significantly greater self-efficacy than their monolingual counterparts. These findings challenge previous studies suggesting that multilingual teachers may have a heightened cultural awareness that enhances their CR teaching efficacy (Hernandez et al., 2013; Aquino-Sterling & Rodríguez-Valls, 2016). However, when analyzed through the lens of the teacher self-efficacy theory, this result implies that while personal experiences with multilingualism may contribute to cultural awareness, self-efficacy in CR teaching is more profoundly influenced by structured learning experiences, such as PD (Siwatu, 2011; see Figure 6).

Figure 6

Comparison of Self-Efficacy Perception Levels by Teacher Groups



RQ3: Engagement with Dimensions of Multicultural Education

The study also included examination of how dual language teachers engage with the five dimensions of multicultural education (Banks, 2006). The findings reveal that teachers primarily focused on content integration and prejudice reduction, demonstrating a commitment to incorporating diverse perspectives into instruction and creating inclusive classroom environments. This is consistent with the multicultural education theory, which highlights teachers' vital role in integrating diverse voices into the curriculum and promoting equity within the learning environment (Banks, 2015).

However, teachers reported the least engagement with the knowledge construction process, which involves helping students critically analyze prevailing cultural narratives and power structures. This indicates a potential gap in how teachers facilitate deeper critical thinking about cultural and historical perspectives. This finding reinforces previous research highlighting that, without explicit training, teachers may struggle to implement higher order critical pedagogical approaches within CR teaching (Ladson-Billings, 1995; Sleeter, 2018). Bridging

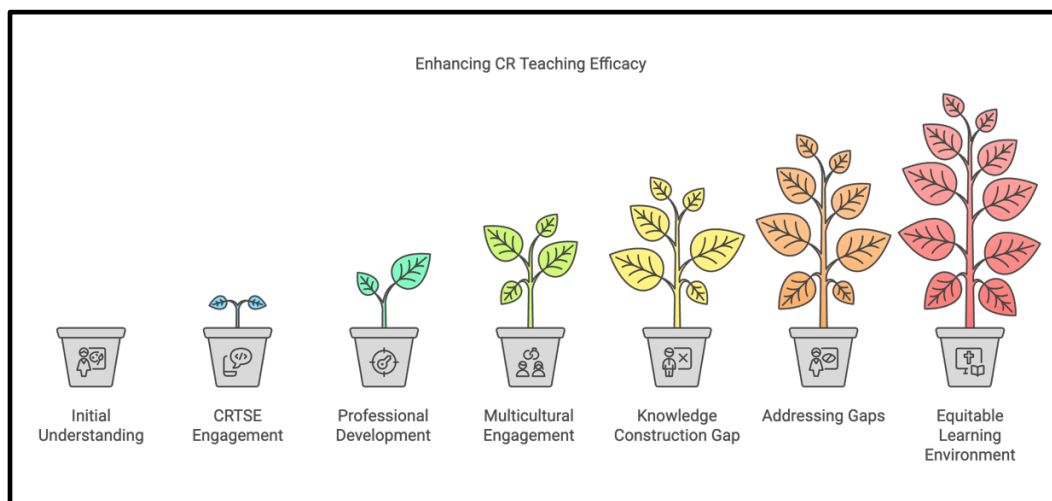
this gap may require additional PD focused on critical consciousness development, a core tenet of the CR teaching theory (Gay, 2018).

Progressive Development of CR Teaching Efficacy

Figure 7 illustrates the gradual development of CR teaching efficacy, highlighting the structured stages necessary to equip teachers with the skills and confidence needed to foster equitable learning environments. This progression is grounded in the data collected during this study, emphasizing key factors that impact teachers' self-efficacy when implementing CR teaching practices. The visual metaphor of plant growth represents how CR teaching efficacy matures over time through intentional support, PD, and increased engagement with multicultural education.

Figure 7

Enhancing CR Teaching Efficacy



The first stage, initial understanding, reflects teachers' foundational awareness of CR teaching, which the study found to be present but often superficial. As teachers begin to engage with CRTSE practices, their confidence starts to grow, symbolized by a small sprout. However, the data suggest that authentic development necessitates structured PD, depicted as a stronger

plant with broader leaves, highlighting the significance of PD in enhancing teachers' skills and increasing their self-efficacy.

As teachers progress, they engage more deeply with multicultural engagement, expanding their ability to incorporate diverse perspectives into their curriculum. However, as the next phase—knowledge construction gap—shows, a key challenge remains: The study revealed that while teachers expressed strong commitments to CR teaching, many found it difficult to facilitate critical discussions about systemic inequities. Addressing this gap through targeted PD and institutional support leads to the addressing gaps phase, when teachers actively refine their practice and improve their effectiveness.

Ultimately, the process culminates in the equitable learning environment, represented by a fully matured plant. At this stage, teachers—supported by structured PD, institutional commitment, and increased self-efficacy—are well-equipped with the pedagogical tools and critical consciousness necessary to foster inclusive classrooms where all students feel valued and represented.

This progression of CR teaching efficacy emphasizes that implementing CR teaching is not a static achievement but a dynamic process requiring continuous learning and institutional commitment. The data from this study show that by supporting teachers through these phases, school districts can empower teachers to create transformative educational experiences that positively impact students.

This study contributes to the growing body of research on how structured learning experiences influence teacher self-efficacy in culturally responsive instruction. The findings reinforce the link between multicultural education, CR teaching, and teacher self-efficacy theories. In addition, the findings highlight that while multilingualism and program type can

enhance cultural awareness, targeted PD is the crucial factor in building teachers' confidence in implementing CR teaching practices.

A key insight from this study is the low engagement with the knowledge construction process, an essential component of multicultural education theory that encourages students to critically examine dominant cultural narratives and systemic inequalities. This highlights an urgent need for further PD that equips teachers with the tools to promote deeper critical discussions and address inequities in education.

By addressing these findings, school districts can enhance and expand their PD programs to equip teachers with the essential skills needed for transformative CR teaching. Strengthening PD opportunities will better prepare teachers to cultivate equitable, inclusive learning environments that affirm diverse student identities and experiences.

Implications

The implications of these findings are twofold. First, they highlight the significance of PD in fostering CR teaching practices. Given the substantial impact that PD has on teachers' confidence, it is clear that district and school leaders should prioritize ongoing, targeted training in CR teaching for teachers. Effective PD should be concentrated on both the theoretical foundations of CR pedagogy and practical, actionable strategies that teachers can apply in their classrooms. By doing so, educational institutions can better equip teachers with the essential tools to cultivate inclusive, equitable learning environments that meet the diverse needs of all students.

Second, the limited impact of program type and multilingualism on teachers' self-efficacy indicates that, although these factors may influence teachers' overall teaching experiences, they do not directly correlate with teachers' perceived ability to apply culturally

relevant practices. This suggests that initiatives aimed at enhancing CR teaching should include all teachers, regardless of the language program they participate in or their personal language background. By focusing on PD, educational leaders can ensure that all teachers, irrespective of their teaching context or linguistic background, have the skills and confidence to implement CR teaching practices.

New Findings and Implications for Theory

The study findings can provide new contributions to the existing literature:

- The most significant predictor of CR teaching self-efficacy was PD, rather than multilingualism or program type. This accentuates the vital role of PD in equipping teachers with the skills necessary for effective CR teaching.
- Teachers' understanding of CR teaching developed after working with the CRTSE Scale, showing that structured self-assessment tools can serve as valuable reflection mechanisms to improve teachers' instructional perspectives.
- Engagement in the knowledge construction process was low, indicating a possible gap in CR teaching practices concerning critical pedagogy and systemic analysis (see Figure 8).

Figure 8

Enhancing CR Teaching Through New Insights



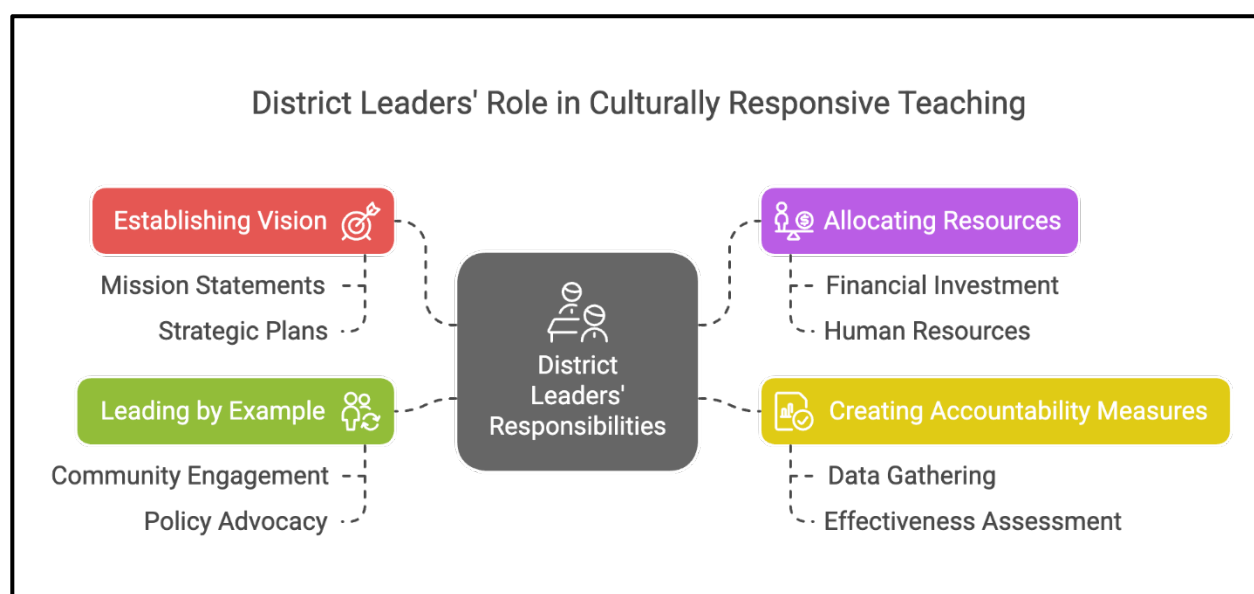
These findings highlight the interconnectedness of multicultural education, CR teaching, and teacher self-efficacy theories. While teachers bring valuable cultural awareness and bilingual skills to their classrooms, their confidence in implementing CR teaching is most significantly influenced by PD opportunities. This highlights the need for ongoing institutional support to ensure that dual language teachers are well-equipped to create equity-driven learning environments.

Implications for District and School Leaders

District and school leaders play a crucial role in supporting culturally responsive teaching and programs. As shown in Figure 9, some of their responsibilities include establishing policies, allocating resources, and cultivating an institutional culture that prioritizes equity and inclusivity (Khalifa et al., 2016). Without strong leadership at the district and school levels, teachers may find it challenging to implement CR teaching practices consistently and effectively, as systemic support is vital for meaningful change.

Figure 9

District Leaders' Role in CR Teaching (Adapted from Khalifa, et al., 2016)



Administrators should first establish a clear vision for CR teaching within their district, integrating it into mission statements, strategic plans, and instructional priorities. This vision must encompass specific policies that mandate ongoing PD centered on CR teaching principles. According to the National Association of Secondary School Principals (NASSP, 2019), school leaders should become acquainted with CR pedagogy and support teachers in adapting their instructional practices to align with these principles.

Allocating financial and human resources is another essential responsibility. Administrators should invest in high-quality PD led by experts in CR teaching, ensuring that the training is research-based, contextually relevant, and responsive to the unique needs of teachers. The Association for Supervision and Curriculum Development (ASCD) emphasizes that leaders play a vital role in fostering environments where culturally responsive instruction can thrive, empowering teachers to leverage their expertise to enhance every student's learning journey (Gabbadon, 2024).

In addition to training, district administrators are responsible for establishing accountability measures to evaluate the effectiveness of CR teaching PD. This entails gathering data on teacher self-efficacy, instructional practices, and student outcomes to determine whether professional learning initiatives lead to significant changes in the classroom. The National Association of Elementary School Principals (NAESP, n.d.) emphasized that CR school leaders should foster a positive school climate and motivate teachers to adopt and implement CR practices.

Finally, administrators must lead by example to foster an inclusive district culture that values and actively supports CR teaching. This involves engaging with community stakeholders, listening to teachers' experiences, and advocating for policies that dismantle systemic barriers to

equity. As emphasized by New Leaders (2023), school leaders can promote CR practices throughout the school significantly by championing teacher agency and supporting CR, particularly for teachers of color. Teachers alone cannot shoulder the responsibility of implementing CR teaching; it requires a systemic commitment from district leadership to create lasting, transformative change in schools.

Implications for Teachers

The findings of this study emphasize the need for improving instructional methods, guiding PD, and promoting equity and inclusion. Teachers' self-efficacy in CR teaching is vital for shaping their instructional approaches, as confidence in these practices results in more inclusive and effective classroom strategies (Gay, 2018; Villegas & Lucas, 2002). By identifying areas where teachers feel less confident, stakeholders can create targeted PD programs to enhance CR teaching skills, supporting research that highlights the necessity of customized training initiatives (Sleeter, 2018; Wei et al., 2010).

Implications for Social Justice and Equity Work

Additionally, the findings highlight the broader social justice and equity implications of CR teaching. The New Jersey Consortium for Immigrant Children (NJCIC) report identified systemic inequities faced by MLs, who are more susceptible to economic marginalization and lower graduation rates (Scott, 2021). The present study aids in addressing these disparities by illustrating the essential role of CR teaching in creating inclusive learning environments where MLs feel appreciated and supported. Neglecting to incorporate CR teaching practices continues to fuel educational inequities, while effective implementation empowers MLs by affirming their cultural identities and promoting meaningful engagement (Banks, 2015; Paris & Alim, 2014).

Limitations of the Study

Despite these findings, it is essential to recognize the limitations of the study. The sample size, while suitable for this exploratory research, was limited, and the results may not fully reflect the diversity of teacher experiences across different regions, school types, or student populations. Additionally, this study relied on self-reported measures of teacher confidence, which may be affected by social desirability bias or other external factors. Therefore, these findings should be interpreted with caution, and further research is necessary to validate these results in broader and more varied contexts.

Recommendations for Future Research

The findings from this study highlight several areas for future research. First, a more nuanced investigation into the relationship between teacher experience and CR teaching would be valuable. Future researchers could examine how various aspects of teachers' professional backgrounds—such as years of teaching experience, prior exposure to diverse populations, or involvement with CR pedagogy—affect their self-efficacy in CR teaching. Additionally, while this study found minimal effects of multilingualism on CR teaching confidence, future researchers could explore how language proficiency in different contexts (e.g., bilingual vs. multilingual) impacts teachers' cultural responsiveness and their interactions with students from diverse linguistic backgrounds.

Another promising direction for future research involves exploring the specific features of PD programs that most effectively support teachers in developing CR teaching skills. This study has demonstrated the significance of PD, but identifying which components—such as duration, format, or content—most greatly impact teachers' confidence and practices would be beneficial. For example, investigating the experiences of teachers participating in long-term PD

programs compared to those in short-term workshops could illuminate the most effective strategies for fostering lasting changes in practice.

Finally, it is essential to consider the role of school leadership and community support in the successful implementation of CR teaching. Future researchers could investigate how school-level factors, such as principal support, the presence of a school-wide diversity initiative, or access to collaborative teaching communities, influence teachers' ability to integrate CR teaching into their classrooms.

Researcher's Reflections

As I reflect on my role in the research process, it is essential to recognize that, as a researcher, I brought certain biases and assumptions influenced by my professional background in bilingual education. To tackle these biases, I applied a rigorous methodology, triangulating data sources and ensuring that the interpretation of findings remained grounded in the participants' experiences. Additionally, I made a conscious effort to remain open to divergent findings that challenged my initial assumptions, especially regarding the impact of multilingualism and program type. This critical reflection allowed me to maintain the objectivity necessary for a valid and reliable study.

Summary

This study contributes to the growing body of literature on CR teaching by investigating the factors that influence dual language teachers' self-efficacy in implementing CR teaching practices. The findings emphasize the critical role that PD plays in shaping dual language teachers' confidence and their capacity to apply CR pedagogy effectively. While multilingualism and program type may enhance teachers' cultural awareness, this study shows that PD is the most significant predictor of dual language teachers' self-efficacy in CR teaching. These findings

align with both the CR teaching theory and the teacher self-efficacy theory, suggesting that structured learning experiences are vital for empowering dual language teachers to foster inclusive and equitable learning environments.

A key insight from this study is that dual language teachers had limited engagement with the knowledge construction process, a crucial aspect of multicultural education. This gap highlights the necessity for targeted PD opportunities that go beyond basic cultural awareness, enabling dual language teachers to critically analyze and address systemic inequities in their classrooms. Howard et al. (2018) argue that equity is fundamental to social justice in dual-language classrooms, influencing how dual-language teachers conceptualize sociolinguistic and sociocultural objectives for their students.

Palmer et al. (2019) emphasized the need to integrate equity and social justice into PD during the pre-implementation phase of TWDL programs, reinforcing the idea that CR teaching cannot be achieved without structured and intentional PD initiatives. All dual language programs should encompass three fundamental goals—academic achievement, bilingualism and biliteracy, and sociocultural competence—while also incorporating a fourth, equally important goal: ensuring that dual language teachers possess the knowledge and skills to embed equity and social justice in their instruction (Howard et al., 2018; Palmer et al., 2019). Closing the knowledge construction gap will require a focused effort to develop dual language teachers' critical consciousness and their ability to facilitate deeper, more reflective conversations about cultural and historical perspectives.

The progression of CR teaching efficacy illustrated in this study highlights that CR teaching is not a static accomplishment, but a dynamic process that requires continuous support. Teachers' self-efficacy develops over time through structured PD and active engagement with

multicultural education. This developmental journey is vital for fostering equitable learning environments where all students, particularly those from marginalized backgrounds, feel valued and represented.

Regarding the implications for practice, the findings suggest that school district leaders must prioritize PD that is specifically designed to enhance CR teaching practices among dual language teachers. However, while this study was focused on dual language teachers, its implications extend to all teachers. Every teacher, regardless of program type or linguistic background, can benefit from PD that deepens their ability to implement culturally responsive teaching. By investing in high-quality PD and promoting a district-wide commitment to equity and inclusivity, educational leaders can ensure that all teachers are equipped with the necessary tools to effectively implement CR pedagogy. Furthermore, the study emphasizes that PD should be inclusive of all teachers, ensuring that every educator has the opportunity to strengthen their ability to apply CR teaching strategies.

While this study provides valuable insights, it also has limitations. The sample size was small and may not fully capture the diverse experiences of dual language teachers across various regions or school contexts. Additionally, the study relied on self-reported measures of teacher confidence, which may be prone to biases. Future research should expand the sample size and explore the impact of different PD program features, teacher experience, and school leadership on CR teaching efficacy. This would improve understanding of the most effective strategies for helping all teachers develop CR practices.

In conclusion, the findings of this study highlight the necessity for ongoing institutional support for dual language teachers as they strive to implement CR teaching. At the same time, these findings emphasize that CR teaching is beneficial for all teachers, not just those working in

dual language contexts. By improving PD opportunities and nurturing an inclusive school culture, district leaders can play a significant role in equipping all teachers to create equitable and transformative learning environments for every student.

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APPENDIX A. DEMOGRAPHICS, LANGUAGE BACKGROUND, AND TEACHING**CHARACTERISTICS**

1. What is your age?
 - ☐ Under 25
 - ☐ 25-34
 - ☐ 35-44
 - ☐ 45-54
 - ☐ 55-64
 - ☐ 65 or older
2. What is your gender?
 - ☐ Female
 - ☐ Male
 - ☐ Non-binary/Third gender
 - ☐ Prefer not to respond
3. What is your ethnicity/race? (Select all that apply)
 - ☐ Hispanic or Latino
 - ☐ White
 - ☐ Black or African American
 - ☐ Native American or American Indian
 - ☐ Asian / Pacific Islander
 - ☐ Other (please specify): _____
 - ☐ Prefer not to respond
4. What is the highest degree earned?
 - ☐ Bachelor's Degree
 - ☐ Master's Degree
 - ☐ Doctoral Degree
 - ☐ Other (please specify): _____
5. What is the total years of teaching experience?
 - ☐ Less than 1 year
 - ☐ 1-3 years
 - ☐ 4-6 years
 - ☐ 7-10 years
 - ☐ More than 10 years
6. What is the total years of teaching experience in dual language programs?
 - ☐ Less than 1 year
 - ☐ 1-3 years
 - ☐ 4-6 years
 - ☐ 7-10 years
 - ☐ More than 10 years
7. What type of dual language program do you teach?
 - ☐ One-Way Dual Language
 - ☐ Two-Way Dual Language
8. What grade do you currently teach? (Select all that apply)
 - ☐ Pre-K

- ☐ Kindergarten
- ☐ 1st Grade
- ☐ 2nd Grade
- ☐ 3rd Grade
- ☐ 4th Grade
- ☐ 5th Grade
- ☐ 6th Grade

9. Is English your first language?

- ☐ Yes
- ☐ No

10. What is your first language? (if not English, please specify): _____

11. Are you multilingual? If yes, which languages do you speak fluently? (Select all that apply.):

- ☐ I am not multilingual
- ☐ English
- ☐ Spanish
- ☐ Chinese (Mandarin, Cantonese, etc.)
- ☐ French
- ☐ German
- ☐ Arabic
- ☐ Other (please specify): _____

APPENDIX B. PD EXPERIENCE AND CR TEACHING UNDERSTANDING

1. Have you received professional development in Culturally Responsive Teaching?
 - ☐ Yes
 - ☐ No
2. If yes, how many hours of professional development in Culturally Responsive Teaching have you completed in the past year?
 - ☐ Less than 5 hours
 - ☐ 5-10 hours
 - ☐ 11-20 hours
 - ☐ More than 20 hours
3. How confident are you in your ability to implement Culturally Responsive Teaching practices? Indicate your level of confidence by selecting a number between 0 (*no confidence at all*) and 100 (*completely confident*). You may choose any number within this range.
 - ☐ _____
4. Please describe what Culturally Responsive Teaching means to you:

APPENDIX C. CULTURALLY RESPONSIVE TEACHING SELF-EFFICACY SURVEY

Adapted from Siwatu (2007) Culturally Responsive Teaching Self-Efficacy Scale

Instructions: Please assess your confidence in successfully completing each of the classroom management tasks listed below. Indicate your level of confidence by selecting a number between 0 (no confidence at all) and 100 (completely confident). You may choose any number within this range.

0	10	20	30	40	50	60	70	80	90	100
No confidence at all					Moderately confident					Completely confident

- 1) I am able to adapt instruction to meet the needs of my students.
- 2) I am able to obtain information about my students' academic strengths.
- 3) I am able to determine whether my students like to work alone or in a group.
- 4) I am able to determine whether my students feel comfortable competing with other students.
- 5) I am able to identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home culture.
- 6) I am able to implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.
- 7) I am able to assess student learning using various types of assessments.
- 8) I am able to obtain information about my students' home life.
- 9) I am able to build a sense of trust in my students.
- 10) I am able to establish positive home-school relations.
- 11) I am able to use a variety of teaching methods.
- 12) I am able to develop a community of learners when my class consists of students from diverse backgrounds.
- 13) I am able to use my students' cultural background to help make learning meaningful.
- 14) I am able to use my students' prior knowledge to help them make sense of new information.
- 15) I am able to identify ways in which students communicate at home that may differ from the school norms.
- 16) I am able to obtain information about my students' cultural background.
- 17) I am able to Teach students about their cultures' contributions to science.
- 18) I am able to greet multilingual learners with a phrase in their native language.
- 19) I am able to design a classroom environment using displays that reflect a variety of cultures.
- 20) I am able to develop a personal relationship with my students.
- 21) I am able to obtain information about my students' academic weaknesses.
- 22) I am able to praise multilingual learners for their accomplishments using a phrase in their native language.

- 23) I am able to identify ways that standardized tests may be biased toward linguistically diverse students.
- 24) I am able to communicate with parents regarding their child's educational progress.
- 25) I am able to structure parent-teacher conferences so that the meeting is not intimidating for parents.
- 26) I am able to help students to develop positive relationships with their classmates.
- 27) I am able to revise instructional material to include a better representation of cultural groups.
- 28) I am able to critically examine the curriculum to determine whether it reinforces negative cultural stereotypes.
- 29) I am able to design a lesson that shows how other cultural groups have made use of mathematics.
- 30) I am able to model classroom tasks to enhance multilingual learners' understanding.
- 31) I am able to Communicate with the parents of multilingual learners regarding their child's achievement.
- 32) I am able to help students feel like important members of the classroom.
- 33) I am able to identify ways that standardized tests may be biased toward culturally diverse students.
- 34) I am able to use a learning preference inventory to gather data about how my students like to learn.
- 35) I am able to use examples that are familiar to students from diverse cultural backgrounds.
- 36) I am able to explain new concepts using examples that are taken from my students' everyday lives.
- 37) I am able to obtain information regarding my students' academic interests.
- 38) I am able to use the interests of my students to make learning meaningful for them.
- 39) I am able to implement cooperative learning activities for those students who like to work in groups.
- 40) I am able to design instruction that matches my students' developmental needs.
- 41) Has your initial understanding of Culturally Responsive Teaching changed after rating your CR teaching capabilities in the previous 40 statements, and if so, how has it changed?

APPENDIX D. CATEGORIZATION OF CRTSE SCALE STATEMENTS UNDER THE FIVE DIMENSIONS OF MULTICULTURAL EDUCATION

5 Dimensions of Multicultural Education (Banks, 2006)	CRTSE Scale Statements (40 items) (Siwatu, 2007)
Dimension 1. Content Integration	7 Items: 17, 27, 29, 30, 35, 36, 38
Dimension 2. Knowledge Construction	4 Items: 19, 23, 28, 33,
Dimension 3. Prejudice Reduction	2 Items: 18, 26
Dimension 4. Equity Pedagogy	13 Items: 1,2, 3, 4, 7, 11, 13,14, 21,34, 37, 39, 40
Dimension 5. Empowerment in School Culture	14 Items: 5, 6, 8, 9, 10, 12, 15, 16, 20, 22, 24, 25, 31, 32

1. Content Integration

Statement 17: Teach students about their cultures' contributions to science.

Statement 27: Revise instructional material to include a better representation of cultural groups.

Statement 29: Design a lesson that shows how other cultural groups have made use of mathematics.

Statement 30: Model classroom tasks to enhance Multilingual Learners' understanding.

Statement 35: Use examples that are familiar to students from diverse cultural backgrounds.

Statement 36: Explain new concepts using examples that are taken from my students' everyday lives.

Statement 38: Use the interests of my students to make learning meaningful for them.

2. Knowledge Construction Process

Statement 19: Design a classroom environment using displays that reflect a variety of cultures.

Statement 23: Identify ways that standardized tests may be biased toward linguistically diverse students.

Statement 28: Critically examine the curriculum to determine whether it reinforces negative cultural stereotypes.

Statement 33: Identify ways that standardized tests may be biased toward culturally diverse students.

3. Prejudice Reduction

Statement 18: Greet Multilingual Learners (MLs) with a phrase in their native language.

Statement 26: Help students to develop positive relationships with their classmates.

4. Equity Pedagogy

- Statement 1: Adapt instruction to meet the needs of my students.
- Statement 2: Obtain information about my students' academic strengths.
- Statement 3: Determine whether my students like to work alone or in a group.
- Statement 4: Determine whether my students feel comfortable competing with other students.
- Statement 7: Assess student learning using various types of assessments.
- Statement 11: Use a variety of teaching methods.
- Statement 13: Use my students' cultural background to help make learning meaningful.
- Statement 14: Use my students' prior knowledge to help them make sense of new information.
- Statement 21: Obtain information about my students' academic weaknesses.
- Statement 34: Use a learning preference inventory to gather data about how my students like to learn.
- Statement 37: Obtain information regarding my students' academic interests.
- Statement 39: Implement cooperative learning activities for those students who like to work in groups.
- Statement 40: Design instruction that matches my students' developmental needs.

5. Empowering School Culture and Social Structure

- Statement 5: Identify ways the school culture (e.g., values, norms, and practices) differs from my students' home culture.
- Statement 6: Implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.
- Statement 8: Obtain information about my students' home life.
- Statement 9: Build a sense of trust in my students.
- Statement 10: Establish positive home-school relations.
- Statement 12: Develop a community of learners when my class consists of students from diverse backgrounds.
- Statement 15: Identify ways in which students communicate at home that may differ from the school norms.
- Statement 16: Obtain information about my students' cultural background.
- Statement 20: Develop a personal relationship with my students.
- Statement 22: Praise Multilingual Learners for their accomplishments using a phrase in their native language.
- Statement 24: Communicate with parents regarding their child's educational progress.
- Statement 25: Structure parent-teacher conferences so that the meeting is not intimidating for parents.
- Statement 31: Communicate with the parents of multilingual learners regarding their child's achievement.
- Statement 32: Help students feel like important members of the classroom.