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Multilingual Learners' and Their Teachers' Perceptions of Culturally Responsive-Sustaining Practices in the Mainstream Classroom: A Mixed-Method Approach

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MULTILINGUAL LEARNERS' AND THEIR TEACHERS' PERCEPTIONS OF CULTURALLY RESPONSIVE-SUSTAINING PRACTICES IN THE MAINSTREAM CLASSROOM: A MIXED-METHOD APPROACH

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The dissertation of **Nicki K. Gonias** entitled: *Multilingual Learners' and Their Teachers' Perceptions of Culturally Responsive-Sustaining Practices in the Mainstream Classrooms: A Mixed-Method Approach,* in partial fulfillment of the requirements for the degree of Doctor of Education in the School of Education and Human Services has been read and approved by the Committee:

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Abstract

The number of multilingual learners (MLs) is on the rise in the United States, especially in schools located in New York State and Long Island. However, many general education teachers lack the necessary training and certification to teach these diverse students effectively. In response, New York State has developed the NYS Culturally Responsive-Sustaining (CR-S) Education Framework to address the gaps in teaching practices. The implementation varies across districts on Long Island. To gain a deeper understanding, I conducted this study to investigate the perceptions of MLs and their teachers regarding CR-S pedagogical approaches in mainstream classrooms. The study involved surveys and focus group interviews with both sets of participants, and the data were analyzed based on the four core components of the CR-S framework. The findings revealed significant differences in the perceptions of MLs and their teachers, particularly in the areas of Building Relationships/Welcoming and Affirming Environment and Ongoing Professional Learning. MLs' responses displayed a lack in their teachers' effort to understand their cultural backgrounds, experiences, and prior knowledge. On the other hand, both MLs and teachers reported similar results for High Expectations and Rigorous Instruction, Inclusive Curriculum, and Assessment. Both MLs and teachers acknowledged the use of CR-S strategies but highlighted the need for more training and support. The study underscores the importance of targeted professional development and training opportunities for general education teachers to incorporate CR-S strategies and techniques for MLs effectively. School districts can use these findings to improve their teaching practices and provide better support for MLs' academic success.

Dedication

I dedicate this dissertation study to my Γιαγιά (grandma), Markella N. Malafis, who was a huge part of pursuing my doctoral degree. I will never forget the day I graduated with my first master's degree. She came to my graduation and asked if I had just received my doctorate. She did not know much about college education, but she knew a doctorate was a prestigious degree. In that moment that I told her I would get my doctorate for her. When my first semester started at Molloy, she suffered a stroke three days before my first in-class presentation. Unresponsive for those days, I received a text from my mother telling me she opened one eye just minutes before my presentation. I know that was her way of showing me her strength and support. We were lucky to have her for two more years. She was my world, and I miss her dearly.

Γιαγιά μου, σε αγαπώ και μου λείπεις.

Nicki K. Gonias

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Chapter 1

Introduction

One in every four public school students will be linguistically diverse by 2025 (National Clearing House, 2016). In New York State, there are over 2.6 million public school students, of whom 8.8% are children who understand a language other than English and require support in acquiring English proficiency. These multilingual learners (MLs) represent 245,000 of the population. The percentage of students who qualify as a ML is steadily increasing and is currently at 54% for Nassau and Suffolk counties in Long Island, New York. As of 2019, the top Long Island school districts with multilingual learner populations are Brentwood (n = 6,339), Hempstead (n = 2,936), and Central Islip (n = 2,122; NYSED, 2019), demonstrating a shift in the student population as becoming more ethnically and linguistically diverse.

United States mirrors the demographic transformation present on Long Island. With this change, there is a pressing need to prepare educators to teach these diverse students (U.S. Department of Education's Office of English Language Acquisition, 2021) and stimulate their MLs' linguistic awareness and cultural understanding (Machado, 2017). Many states and districts, like New York, have adopted a culturally responsive curriculum focused on the asset-based approach of what students can bring to the classroom rather than their weaknesses.

In 2018, New York State created the Culturally Responsive-Sustaining (CR-S) Education Framework as a basis for teachers to incorporate their students' ethnic and diverse backgrounds by empowering positive student learning outcomes (NYSED, 2019). The CR-S framework stems from the work of Ladson-Billings (1995) on culturally responsive teaching and the inclusion of students' cultural references and backgrounds across their learning experiences. This framework was a significant asset to teachers to support their MLs. The CR-S framework is an innovative approach to education that aims to ensure that every student feels valued and supported,

regardless of their background or linguistic abilities. One of the unique features of this framework is its emphasis on promoting cultural competence among teachers, which involves understanding and appreciating their students' diverse cultures and identities. By doing so, teachers can better connect with their students and create a more inclusive learning environment. Additionally, the framework encourages teachers to use culturally responsive pedagogy, which involves tailoring instruction to their students' cultural and linguistic backgrounds. This approach can significantly enhance the learning experience for MLs, as it helps them understand and engage with content in a relevant and meaningful way to their lives. The CR-S framework equips teachers with the knowledge and tools necessary to support MLs, fostering a more equitable and effective educational system.

The use of the CR-S varies throughout New York State. For example, the New York City Department of Education (NYCDOE) has mandated the CR-S framework into the curriculum in all schools, ensuring representations of the multilingual learner population. At the same time, on Long Island, school districts have only begun discussing the implementation of the CR-S framework into the curriculum. Although the implementation of CR-S is occurring in some districts on Long Island, it is currently not universally adopted. Because the statistics from Long Island show a marked change in student enrollment, it is essential to enact the necessary measures as quickly as possible (NYSED, 2019).

While the research on utilizing the CR-S framework is still forthcoming, studies on the effectiveness of implementing culturally responsive pedagogy are well established (Brown, 2004; Byrd, 2016; Chuang et al., 2020; Dickson et al., 2016; Garcia & Chun, 2016). Culturally responsive pedagogy is a critical component of the CR-S framework. Educators can create more equitable and inclusive learning environments for all students by applying the culturally

responsive pedagogy principles embedded in the CR-S framework. The framework provides educators with specific strategies and tools to support the implementation of such pedagogy, including developing culturally responsive curricula, using culturally responsive teaching practices, and establishing culturally responsive classroom communities.

Research shows that including students' culture in teaching is essential for learning (Gay, 2002). A successful teacher must have knowledge not only of the content but also of their students' past experiences to connect them to the material effectively. Teacher-student relationships are also necessary for helping students develop academically (Stronge et al., 2011). Trusting relations between teachers and students, especially multicultural learners, are pivotal for students to feel secure about learning (Banse & Palacios, 2017). However, there is limited research on the perceptions of teachers of MLs on culturally responsive teaching in mainstream classrooms. Both the MLs and the teachers should have similar understandings and expectations (Banse & Palacios, 2017), for the two groups to be on the same page.

Since there is limited research on both the perceptions MLs and the perceptions of teachers of MLs on this teaching approach, this concurrent mixed-method study focused on examining the perceptions of mainstream teachers and their multilingual students on various strategies embedded in the CR-S framework pedagogy. This study’s findings study can lead to the improvement of programs and curricula for MLs through a better understanding of best practices to assist students’ needs.

Multilingual learners require varied accommodations in their learning process to achieve their utmost potential (Brown, 2004). Immigrant students classified as MLs have difficulty graduating high school because of linguistic, cultural, and educational difficulties. Nieto (2009) mentions that the current curriculum structure does not account for their diverse ethnicities and

experiences, leading to a lack of meaningful connections between them and their learning material. As the student population in the school district grows more diverse, there is also a lack of innovation in teaching methods that continue to be standardized, regulated, and monitored (Machado, 2017).

To ensure educators meet the needs of MLs, the New York State Education Department (NYSED) in 2014 adopted a set of regulations and guidelines called CR Part 1-54 (NYSED, 2023). These regulations aim to ensure that students from diverse language and cultural backgrounds have equal access to education and receive appropriate support to achieve academic success. The guidelines for educating MLs include seven focus areas:

(a) identification and assessment, which discusses how school districts are required to identify and assess students who have a primary or home language other than English to determine if they need specialized English language instruction and support,

(b) English Language Learner (ELL) programs, where schools are required to provide specialized ELL programs to students who require English language instruction to develop their language proficiency,

(c) qualified staff, where teachers who provide ENL instruction and support must have appropriate certification or training,

(d) instructional time, where schools must provide sufficient instructional time for ML students to develop their language skills and content knowledge,

(e) parental communication, where schools must communicate with parents and guardians in a language and format they can understand and provide them with information about ELL programs and their child's progress,

(f) student progress monitoring, where schools must monitor the progress of ELL students and provide additional support or interventions as necessary to ensure academic success, and,

(g) cultural sensitivity focusing on teachers and school staff being respectful of their students' cultural and linguistic diversity and create a welcoming and inclusive learning environment.

Overall, these guidelines ensure that MLs receive the necessary support and resources to develop their English-language skills and be academically successful once they enter any school system.

A typical ML will enter the school and begin the process of screening, identification, and placement to ensure that they receive adequate support and services throughout their academic journey. For the purpose of the study, the researcher will focus on the 9th through 12th-grade pathway. The Language Proficiency Team (LPT) conducts the screening process at the time of enrollment to identify which students need English language support. In New York, the first step to screening involves administering the Home Language Questionnaire (HLQ) to assess the student's home or primary language use. If the HLQ determines the home language other than English, the LPT then screens the student using an individual interview. The LPT will conduct the interview that will confirm the home language to be a language other than English. Once a student has been screened and identified, a LPT member administers an initial English language learner identification assessment called the New York State Identification Test for English Language Learners (NYSITELL). Using the NYSITELL, the student will score within one of the five levels of English language proficiency.

The five levels of proficiency for MLs are entering, emerging, transitioning, expanding, or commanding. Students at the entering level are at the beginning level of English language proficiency. They understand and use some basic phrases but have difficulty with even simple expressions and social language. Students at the emerging level are at a low-intermediate level of English language proficiency. They understand and use simple language in familiar contexts but struggle with more complex language and vocabulary. Students at the transitioning level are at an intermediate level of English language proficiency. They understand and use language related to familiar topics but struggle with more abstract or academic language. Students at expanding level are at an advanced level of English language proficiency. They understand and use a variety of language and vocabulary related to both familiar and academic topics, although some areas may still be challenging. Students at the commanding level are at a proficient level of English-language proficiency. They understand and use a wide range of language and vocabulary related to both familiar and academic topics with ease and fluency. They participate fully in classroom discussions and academic tasks (NYSED.gov, 2015).

If the student scores between entering and expanding on the NYSITELL, the district programs them as a ML in their database. The NYSITELL does not consider students scoring at a commanding level to be MLs. After identifying a student as a ML, the district will use the NYS CR-Part 154-2 (9-12) regulations to place the students in the appropriate program and level of support needed. The placement process considers the student's language proficiency level, academic level, and other factors to identify the level of support needed in learning. They are either placed in an English as a New Language (ENL) in which the instruction is in English, with support in the students' home language until they become English proficient; bilingual program in which the content is taught in the home language of MLs; transitional bilingual program,

where content is taught primarily in English and supports in the home language of the MLs; or dual-language program taught in both English and their home language to build biliteracy in both languages.

Assisting MLs through such programs provides them with a variety of English-language acquisition services that vary in the number of hours needed according to their language acquisition level and the CR-Part 154-2 (9-12) regulations. According these regulations, entering level students will receive 540 minutes of service per week, emerging level students will receive 360 minutes of service per week, and transitioning and expanding level students will receive 180 minutes of service per week. Commanding level learners, also known as former MLs, continue to receive at least 90 minutes of service per week for an additional two years (NYSED, 2015). The various services can include an English to Speakers of Other Languages (ESOL)-certified teacher co-teaching in an integrated instructional setting or in a stand-alone setting from their general education classes to provide English-language acquisition and/or bilingual language support. This certification equips teachers with the skills and knowledge to work with non-native English language speakers to improve their English skills and achieve optimal learning outcomes in English.

At the entering and emerging level, MLs are placed in stand-alone ENL support classes and receive additional support through the integrated co-teaching model. As MLs reach the transitioning level or higher, they are not required to have stand-alone ENL and receive their minutes in mainstream courses through the integrated co-teaching model. This means MLs, at the 9th-12th-grade levels, must have 180 minutes with an ESOL-certified teacher, and they can spend rest of their day in content area classes taught by non-ESOL-certified teachers.

This scheduling is where the challenges arise for both the students and the teachers. The students need to adapt to the language and content expectations of the mainstream classroom, while the teachers should be cognizant of the specific needs of MLs during this period of adjustment (Dickson et al., 2016). In a mainstream classroom where teachers might not hold a ESOL certificate, they must be trained in working with diverse learners, including MLs.

Research shows that MLs require a modified teaching delivery and implementation. Linguistically diverse students require accommodations such as extra time on assessments, using manipulatives to enhance understanding, keeping a routine in the class, providing multiple delivery methods of instruction, and so much more (Akram, 2019). Educators in mainstream classrooms can embrace the principles of a culturally responsive-sustaining curriculum to support MLs' learning effectively.

In conclusion, the process for a ML in New York State involves comprehensive screening, identification, and placement. This process helps ensure that MLs receive the necessary support and services to succeed academically and socially. Both culturally responsive pedagogy and the New York State Culturally Responsive and Sustaining Framework are closely interconnected, with one supporting the other. They both aim to create learning environments that are culturally responsive, inclusive, and provide all students, especially MLs, with the opportunity to succeed. Overall, the CR-S framework fosters a more equitable and effective educational system.

Theoretical Framework

Having a theoretical framework that can properly address the needs of MLs and accommodate the growing number of students in classrooms today is essential. Understanding MLs and their backgrounds and unique accommodations creates an effective learning

environment. It is crucial for teachers who know how to build on their students' cultures and backgrounds to connect the lesson and provide students with higher learning potential. The work of Gloria Ladson-Billings (1995) is the foundation for the framework centered on culturally relevant pedagogy with four essential values. The first value states that students must experience academic success. How students develop their academic success differs, but the needs for literacy, numeracy, technology, social, and political skills are essential to be active participants in society. Second, students must maintain and develop cultural competence, as they learn to maintain cultural integrity and academic excellence in a parallel manner. Teachers of culturally relevant students utilize their students' culture as a vehicle for learning. Third, students must develop critical consciousness by challenging the current status quo of social order. Furthermore, students should achieve academic excellence and also have the ability to critique social norms, values, and institutions that produce social inequities.

With these values in mind, NYS provided a framework and guidelines for all education stakeholders (student, teacher, school and district leadership, families and community advocates, higher education, and the State Education Department) to establish culturally responsive-sustaining pedagogies. The guidelines assist educators in forming student-centered learning environments that:

(a) advocate for racial, linguistic, and cultural identities;

(b) produce students of rigorous and individualized learning;

(c) develop students' abilities to connect across lines of difference;

(d) empower the voices of the historically marginalized; and

(e) encourage students to become agents of change.

Furthermore, the development of the CR-S framework supports all education stakeholders in developing and implementing policies for all students to be educated effectively and equitably to promote positive student outcomes (NYSED, 2019).

The NYS CR-S framework is grounded in four core principles: (1) a welcoming and affirming environment, (2) high expectations and rigorous instruction, (3) inclusive curriculum and assessment, and (4) ongoing professional learning. The NYS CR-S framework explained the principles for each specific shareholder. For the purpose of this study, the student and the teachers will be the focused stakeholders and their principles. Both the students' and the teachers' principles are similar and represent comparable ideologies. The student principle of creating and welcoming environment focuses on the students' involvement in creating a safe space for all learners, participating in the creation of codes of conduct and norms, establishing positive classroom environments, practicing empathy, and assisting in identifying inequities. The student principle of fostering high expectations and rigorous instruction involves participation in leadership opportunities and developing a mindset in which students set high expectations for their growth and learning development. Other student principles include collaborating with teachers to create optimal opportunities to grow and change mindsets building resilience for mistakes and voicing the desire to receive challenging work and to further extend their understanding in activities and projects. The principle of identifying an inclusive curriculum and assessment dives into the idea of the students collaborating with teachers and peers in creating multiple classroom assessments where growth and understanding can partake, engaging in learning opportunities outside of the classroom to expand their learning, breaking any barriers of implicit biases, and involving themself in the restructuring of course offerings and extracurricular activities. The final principle for the students' involvement in ongoing

professional learning and support principle includes the intentions of seeking help and guidance from in-school and community when needed, setting goals to aspire for further development with teachers and families, and challenging themselves to be more educated on various cultures, languages, orientations, abilities, and socioeconomic backgrounds.

Implementing the CR-S framework for teachers helps develop and foster students' education in being culturally responsive and sustaining such an environment. Creating a welcoming and affirming environment requires a teacher who builds rapport with the students in fostering positive relationships where students share their opinions and concerns, participate in the structure of school policies for curriculum and community engagement, and meet with families to familiarize themselves with their cultural norms to then incorporate in their pedagogies and incorporate restorative practices for students who experienced harm. A teacher, incorporating the principle of fostering high and rigorous expectations, assigns current events to provide opportunities to engage in challenging topics and learn tools for maneuvering such topics and has high expectations for rigorous instruction as it relates to race, gender, sexual orientation, language, ability, and economic background, and reflect in their own bias to ensure the development of their lessons do not include any. Identifying inclusive curriculum and assessment for a teacher is when they provide opportunities for learning in multiple languages, incorporate diverse perspectives where students can work collaboratively towards a goal, and support students in taking the initiative to create and run student-led ambitions.

Teachers constantly engage in professional learning. The CR-S framework focuses on professional learning where teachers continuously challenge themselves to reflect on their implicit biases, use data to determine trends for subgroups of students, and learn more about diverse communities and their students' lives. The CR-S framework has two reflective parts:

culturally responsive education and sustaining. Culturally responsive education is ensuring the education presented to the students reflects their cultures by getting to know them to ensure that classrooms reflect all learners. The second part of sustainability is the concept of incorporating culture into education, not assimilating the various cultures. These are ways teachers can reflect and hold themselves accountable in implementing CR-S practices.

Statement of the Problem

A growing number of studies focus on MLs and culturally responsive teaching, such as Chuang et al.'s (2020), 'Teachers' Perceptions of Culturally Responsive Teaching in Technology-Supported Learning Environments'; Byrd's 2016 study, 'Does Culturally Relevant Teaching Work? An Examination from a Student Perspective'; Garcia and Chun's 2016 study, 'Culturally Responsive Teaching and Teacher Expectations for Latino Middle School students; Zorba's 2020 study Personal and Professional Readiness of In-service Teachers of English for Culturally Responsive Teaching; and Dickson et al.'s 2016 study 'The Development and Initial Validation of the Student Measure of Culturally Responsive Teaching'. Thus, none of those studies focus on both MLs' perceptions connected to their teachers' perceptions of culturally responsive teaching in a high school setting.

In Chuang et al.'s (2020) and Zorba's (2020) studies, teachers' understanding of culturally responsive teaching in tech-supported learning environments, as well as the English instructors' readiness for such education, mainly focused on the educators' opinions without collecting any other data from other stakeholders such as students. Additionally, Byrd's (2016) study 'Does culturally relevant teaching work? An examination from a student perspective', Garcia and Chun's 2016 study on 'Culturally responsive teaching and teacher expectations for Latino middle school students', and Dickson et al.'s 2016 study 'The development and initial validation of the

student measure of culturally responsive teaching' all focused on the perceptions of students only and did not in include teachers' perspectives. They all provided the lens of the learner in the middle to high setting, not bridging the perceptions of their teachers to strengthen and further confirm the results and findings.

Therefore, this study was one of the first to examine the NYS CR-S framework as it pertains to MLs' perceptions connected to their teachers' perceptions in high school settings. The requirement to sustain research on culturally responsive teaching is pivotal to adapt and change as the continuously increasing classroom population becomes more varied. In order to apply the CR-S framework, teachers must keep track of their own behavior and be willing to interact with their students in a way that considers their individual backgrounds and interests. Too often, teachers referred to as "good teachers" get placed teaching MLs, but do not necessarily implement the proper elements that reflect the culturally responsive-sustaining teaching framework (Byrd, 2016).

In New York, teachers who work with MLs have an ESOL or bilingual extension certification. These certificates provide them with additional training and knowledge on effectively teaching and supporting students who speak languages other than English. It also allows them to communicate with students and their families in their native language, creating a more inclusive classroom environment. However, subject-area teachers often do not possess one of these additional certifications, which results in insufficient preparation to effectively teach the ML population in their classes (Colombo et al., 2013). Teaching MLs, without additional support may hinder their comprehension compared to non-MLs and limit their academic achievement in the classroom. According to Colombo et al. (2013), most teachers lack the knowledge and ability to provide tailored instruction for MLs, resulting in poor academic performance.

Teachers' expectations can potentially influence ML's academic performance by lowering their expectations regarding these students (Garcia & Chun, 2016). At times, teachers lower their expectations concerning the performance of MLs, given that they face distinct obstacles resulting from their diverse backgrounds and may not achieve results on par with their non-ML counterparts. If educators cultivate an environment that fosters high performance, MLs are likely to rise to the challenge. Holding them accountable and encouraging them without bias will lead to higher expectations from teachers and peers alike (Villegas & Lucas, 2002).

MLs need close support from their teacher during the lesson, as they are not yet confident in their use of English. Educators must establish a good relationship and effective communication for knowledge to be effectively shared. A culturally aware teacher can pick up on these factors. MLs' teachers must adopt a curriculum with which the student can connect. *Culturally responsive teaching* is a method that general education teachers can use to implement strategies where diverse students can make connections and accomplish more in their learning (Gay, 2002). The need to modify the curriculum to address MLs by implementing culturally responsive teaching is in high demand as the demographics shift. It is crucial to conduct a study focused MLs and their perceptions of teacher delivery of the CR-S framework.

I utilized the perceptions of MLs, alongside their teachers, in this study to identify key characteristics and strategies for effective learning that will help create appropriate professional development as well as teacher preparation programs. The need for this study is very relevant and will help both the teachers and the MLs in the classroom.

Purpose of the Study

This concurrent mixed-method study aimed to understand teachers' perceptions of their delivery of the NYS CR-S framework and their students' perceptions of the delivery of this

framework's principles. Specifically, this study focused on perceptions of MLs in general education classrooms with mainstream, non-ESOL-certified teachers. I analyzed the students' perceptions concurrently with their teachers' perceptions of how they utilized the CR-S framework in their class. The comparison of teachers' and students' perceptions helped to understand if what the teachers think is being delivered in the classroom is also being perceived similarly by their MLs. Additionally, I asked the MLs to identify the specific characteristics their teachers utilized in the classroom to display CR-S strategies through the small focus group interviews. The findings illuminated that MLs' needs are not necessarily met in the general education classes, as mainstream teachers are not always adequately trained to accommodate MLs. Furthermore, this study is one of the first to identify the disparities between teacher delivery and students' absorption of classroom pedagogy as it refers to the CR-S framework.

Research Questions

The study answered research questions examining how MLs and teachers perceive the CR-S framework strategies in the classroom. The research questions were as follows:

Overarching Research Question:

How do MLs' perceptions and experiences of the CR-S framework classroom implementation and strategies differ from the perceptions of their teachers?

Quantitative Research Questions:

1. Is there a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery?

    Ho: There is no difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery.

Ha: There is a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery.

2. What differences exist between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom?

   Ho: There is no difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom.

   Ha: There is a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom

3. Do MLs' and teachers' perceptions of the CR-S framework strategies differ by gender or ethnicity?

   a. Is there a significant difference in ML student' ratings of CR-S strategies in the general education classroom by gender?

      Ho: There is no difference in ML students' ratings of CR-S strategies in the general education classroom by gender.

      Ha: There is a difference in ML students' ratings of CR-S strategies in the general education classroom by gender.

   b. Is there a significant difference in ML students' ratings of CR-S strategies in general education classroom by ethnicity?

      Ho: There is no difference in ML students' ratings of CR-S strategies in general education classrooms by ethnicity.

Ha: There is a difference in ML students' ratings of CR-S strategies in general education classrooms by ethnicity.

c. Is there a significant difference in teachers' ratings of CR-S strategies by gender?

Ho: There is no difference in teachers' ratings of CR-S strategies by gender.

Ha: There is a difference in teachers' ratings of CR-S strategies by gender.

d. Is there a significant difference in teachers' ratings of CR-S strategies by ethnicity?

Ho: There is no difference in teachers' ratings of CR-S strategies by ethnicity.

Ha: There is a difference in teachers' ratings of CR-S strategies by ethnicity.

Qualitative Research Questions:

4. What characteristics and teaching strategies do MLs and mainstream teachers find culturally responsive and sustaining in support of their education and learning?
5. How do teachers' perceptions of the CR-S framework contribute to their perceptions of the MLs?

Integrative Research Question:

6. To what extent and in what ways do qualitative interviews with students and teachers serve to contribute to a more comprehensive and nuanced understanding of the CR-S framework with and for MLs, via integrative mixed-methods analysis?

Research Methods

A concurrent parallel mixed-method was selected to capture both quantitative and qualitative dimensions of students' and teachers' perceptions of the CR-S framework. As a concurrent parallel design (Creswell et al., 2003), the data was collected close in time to inform the relationship more accurately among the variables examined. Given this study's broad and diverse nature, there are several benefits to approaching this study through a mixed-methods design. First, the survey questionnaire, designed based on the four core principles of the CR-S framework, was administered to both the MLs and the teachers separately. The design and structure of the questions were parallel matching the MLs' survey with the teachers of MLs' survey. The focus group questions aided with the triangulation of the quantitative results and helped expand on the concepts explored in the survey.

The results from the survey provided an in-depth analysis of MLs' perceptions of the delivery strategies of the CR-S framework. The teachers' survey results also informed the use of the CR-S framework and how both the teachers' and the students' perceptions align. Next, I invited participants to be part of the focus groups to elaborate on their perceptions of the CR-S framework's four principles in greater detail. I used focus groups for both the teachers and the MLs provided more in-depth responses discussing teacher characteristics and strategies they both perceived.

A concurrent study was applicable to ensure the attrition of all sample participants, as the concurrent research conducted will be parallel for each strand. The quantitative research questions aimed to uncover the strategies and perceptions of the CR-S framework of the MLs and how they connect to the teachers' perceptions of delivery and utilization of the CR-S framework. The qualitative research questions allowed the MLs and teachers to explain further

what characteristics and teaching strategies an effective teacher possesses in a culturally responsive-sustaining classroom. Integrating both quantitative and qualitative parts of the research design presents a more comprehensive view of the perceptions examined in this study.

Site, Participants, and Sampling

For the purpose of this study, I identified two suburban high schools populated with MLs to allow for authentic responses to culturally responsive-sustaining teaching. These sites were selected based on the demographics of the student population and their location; one of the high schools was in Suffolk, while the other was in Nassau County. The first school, Yellow High School, student demographics were: 79% Hispanic, 16% Black, 2% White, and 3% Other (Asian, Pacific Islander, American Indian, Alaskan Native, or Multi-racial). Twenty-seven percent of the school's total number of students, n = 2,399, are coded MLs. The second site's, Red High School, student demographics were: 49% White, 4% Black, 32% Hispanic, and 14% Other (Asian, Pacific Islander, American Indian, Alaskan Native, or Multi-racial). Of the school's total number of students, n = 1076, 9% are coded MLs.

There are 747 MLs currently enrolled in a mainstream class where the teacher does not hold an ESOL teaching certificate or has no formal training in teaching MLs invited to participate in the survey and 229 accessed the database. I invited 192 teachers who are not ESOL certified and teach MLs to participate in the survey, and 28 accessed the database. I used a purposeful convenience sampling when identifying the MLs and the teachers.

Data Collection

In this concurrent mixed-method study, I collected the survey data from the MLs and the teachers via the Qualtrics online platform. Both sets of participants were first invited via email to complete the Culture, Integration, Strategies, and Support (CISSA) survey, and then they were

asked within the survey to agree to partake in focus group interviews. The number of people in each focus group was kept small, between 3-5 per group, to make sure to capture the individual voices of all participants accurately. I conducted four focus group sessions and divided them between the two sites - two interviews at each location. One interview group consisted of students and the other one of teachers. I used pseudonyms throughout this dissertation to protect the identities and locations of the schools, teachers, and students.

Quantitative. The quantitative strand of the study was the survey questionnaire. The survey tool used in this study was the CISSA survey (McDermott Goldman, 2022). This tool's design parallels the NYS CR-S framework's four core principles. I distributed the survey questions to the MLs to collect data for the quantitative portion of this study that revealed their perceptions of the CR-S framework from their teacher in a general education classroom. The first part of the questionnaire consisted of demographic questions measuring participants' characteristics, such as the students' age, ethnicity, race, years in America, and grade point average. The CISSA survey tool consisted of four parts. The first part consisted of 18 Likert-type questions focusing on the teachers' delivery and structure of the lesson pertaining to building relationships and creating a welcoming and affirming environment. The second part consisted of 19 questions that relate to the teacher creating high expectations and providing rigorous instruction. The third part reflected on the teachers' delivery of an inclusive curriculum and assessment that contained 17 Likert-type questions. The final part of the survey was seven Likert-type questions and discussed the teachers' evidence of ongoing professional development. The students involved in the study filled out this questionnaire via Qualtrics, and it took approximately 7-10 minutes to complete.

I also gave the teachers a questionnaire parallel to the student one. The initial questions were demographic questions such as the teachers' years of experience teaching, ethnicity, certifications they have acquired, and their gender and other information. This CISSA questionnaire consisted of four parts that pertain to the CR-S framework principles. The first part provided a reflection on building relationships and creating a welcoming environment. There were 20 Likert questions to answer. The next part asked 19 Likert questions referencing high expectations and rigorous instruction. Inclusive curriculum and assessment were the third part containing 18 Likert questions for teacher reflection. The final part of the CISSA survey tool focused on ongoing professional learning through 11 Likert questions. The participating teachers completed this questionnaire via Qualtrics and took approximately 7-10 minutes to complete.

Qualitative. The qualitative portion of the study was completed after the survey for those participants who chose to participate. I set up focus group interview dates and times for each set of MLs and teachers in both schools. I placed the MLs in focus groups of 3-5 participants that lasted 30-40 minutes each. Secondly, I placed the teachers in their focus groups with 3-5 teachers per group for 30-40 minutes. There were four focus groups, two students and two teachers. The students and the teachers in the focus groups discussed personal perspectives on their ideas and understandings of evidence of the NYS CR-S framework principles in their classroom. The interviews were recorded and transcribed upon completion.

Data Analysis

Once the MLs and the teachers completed the questionnaires and the focus groups, I analyzed the findings.

Quantitative analysis. I analyzed the findings of the questionnaire to discover characteristics and strategies the students would identify in alignment with the CR-S framework.

Additionally, the results were compared under an independent sample *t*-test, ANOVA, Mann-Whitney, and Chi-Square analysis revealing the differences between the perceptions of cultural competence, strategies, and characteristics in the general education classroom. Examining these differences provided a basis for understanding if students are receiving and acknowledging the teachers' attempt to provide and create a culturally responsive-sustaining classroom in response to the teachers' idea of delivering and providing a CR-S classroom environment. I used Statistical Package for the Social Sciences (SPSS) software analyzed the data using descriptive statistics and tests conducted. Data cleaning occurred once the data was uploaded into SPSS, removing incomplete responses and outliers.

Qualitative analysis. I reviewed the responses from focus groups of the multilingual students and the teachers for any common findings. After transcribing the focus groups' data, I imported the data to the mixed-methods online program Dedoose to identify common codes and themes. Additionally, the focus group themes from both the MLs and the teachers were analyzed and compared to each other.

Integrative analysis. The cross-analysis of the MLs and the teachers allowed for overlapping and differences in the findings. They identified the strategies and characteristics of the CR-S framework identified by the students and teachers. The quantitative data ratings were compared to the qualitative portion's findings and themes to enhance the findings.

Limitations

With a small sample size, the results from this concurrent analysis may not be generalizable to MLs in other school districts. A concurrent research approach was best because of the sample population used in these school settings. The current research sites were two suburban high schools with varying percentages of their ML population.

The social validity and replication bias of the participants, both teachers and students, could have undermined the study's results. When completing the survey, the participants could have responded in a way they believed the researcher would want them to respond rather than indicate the answers as true to who they are and what they believe (Beaudry & Miller, 2016).

A specific bias in this study was the researcher. The researcher was a teacher of MLs and a multilingual learner. This could have caused a potential bias in the analysis and interpretation of the results as the MLs describe a culturally responsive-sustaining classroom and a bias toward the teachers' responses. The researcher would have addressed this through the clear and concise formation of the questionnaire and the questions' strong alignment with the CR-S framework. I compared the perceptions discovered through the questionnaires and the focus group. The final analysis compared multilingual students' perceptions and their teachers' perceptions of strategies and implementation techniques of the CR-S framework.

Significance of the Study

This study was significant as the change in the population of students must also shift the delivery of pedagogy from our teachers. Teachers are responsible and not necessarily prepared for this new influx of diverse, multilingual students in the classrooms. This research contributes to identifying the needs of MLs in mainstream classrooms and the teachers' perceptions of their attempt to accommodate such learners.

This study helped shape the context of future professional development for teachers and how the ML population perceives teachers' delivery and strategies in their courses. The study focused on teachers' perceptions of implementing a culturally responsive teaching framework in their general education course based on the needs of the specific group of MLs and those students' perception of receiving and understanding those strategies to succeed in the course.

Multilingual students deserve a fair and equitable education, which can only occur if the teacher properly accommodates those students using a culturally responsive-sustaining framework teaching approach The teacher must not only teach with linguistic diversity in mind but also tailor their delivery methods for each student. Whether a student is a native speaker or someone still learning the language, the teacher must ensure they are understood and engaged.

This research was relevant to the rapidly increasing numbers of MLs in classrooms over the years. Even though the population of students is changing, teachers' training might not. Teachers, who teach MLs in their mainstream classrooms, might not have had any professional development to educate those students properly. Nonetheless, these students may experience challenges in their ability to learn.

Definition of Terms

The following terms are defined to ensure a clear, understandable comprehension of the key terms in this study.

Culturally Responsive Curriculum (CRC) - a pedagogy that uses cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant and effective for them (Gay, 2010).

Culturally Responsive-Sustaining Education Framework (CR-S) - a framework structured on providing education stakeholders with student-centered learning environments promoting cultural identities; cultivating clear academic outcomes; providing opportunities to become advocates of social change; partaking in individualized student engagement, growth, and learning; advancement, and opportunity of critical thinking; developing the ability of the students to understand disparity, and advancing their opportunity in becoming agents to revolutionize the historically marginalized. (NYSED, 2019).

Culturally Responsive Teaching (CRT) - a pedagogy that recognizes the importance of including students' cultural references in all aspects of their learning (Ladson-Billings,1994).

English as a New Language (ENL) - Students receive core content area and English language development instruction, including the use of the home/primary language as support and appropriate ELL instructional supports to enrich comprehension (Nysed.gov).

English as a Second Language (ESL) - also known as English Language Learners, are students who learn the language of instruction (English) while they learn the curriculum. (Tophat.com, 2022).

Linguistically Diverse Student (LDS) - a student that comes from a home environment where a language other than English is spoken (PBworks.com, 2011).

Multilingual Learners (ML) - children who "by reason of foreign birth or ancestry, speak or understand a language other than English and require support in order to become proficient in English (NYSED, 2014).

New York State English as a Second Language Achievement Test (NYSESLAT) - A test designed to annually assess the English language proficiency of all English Language/Multilingual Learners (ELLs/MLs) enrolled in Grades K–12 in New York State schools (NYSED, 2022).

Summary

I presented the NYS Culturally Responsive-Sustaining Education Framework in this chapter as the focus of the study, which explored the perception of MLs and their teachers towards its implementation in mainstream classrooms. With the increasing number of MLs in the classroom, there is a need to restructure current curriculum delivery methods to accommodate their needs. It is necessary for teachers to be responsible for utilizing a culturally responsive-

sustaining curriculum to engage effectively with these students, ensuring optimal learning outcomes.

The literature review examines teacher effectiveness, culturally responsive-sustaining teaching, and MLs in greater detail. It provides an analysis of relevant theories and studies that relate to this research. Chapter 2 discusses the existing research on this topic and how this study will contribute this field. In Chapter 3, I examine the study's structure. It defines and analyzes the measure for analysis as an explanatory sequential mixed-method design. The chapter also provides more detailed information about the research methods utilized, chosen site, and participants.

Chapter 2

Literature Review

MLs are students who speak two or more languages in their daily life (Mitchell, 2012). According to the U.S. Department of Education's Office of English Language Acquisition (2021), the rise of MLs in public schools is continually increasing. Such learners in the United States will represent 40% of the student population by 2030 (Thomas & Collier, 2002). Classroom instruction calls for a shift in the delivery of instruction and pedagogy to accommodate these learners (Machado, 2017). While educators continue to make efforts to meet the needs of all students, the unique population of students who speak another language presents teachers with an additional layer of consideration when teaching and delivering content to them.

MLs require a different approach to support their learning, which accounts for their diverse backgrounds and unique needs. A wave of new pedagogies and educational frameworks has emerged over the past few decades, which focus on recognizing the importance of placing the learner's cultural backgrounds and experiences at the heart of learning. Among them, the key foundational approaches include: (a) Culturally Relevant Pedagogy (Ladson-Billings, 1995); which focuses on academic success, cultural competency, and critical consciousness, (b) Culturally Responsive Teaching (Gay, 2002); which engages students by focusing on their cultural identities and experiences, and (c) Culturally Sustaining Pedagogy (Paris, 2012); anchored in promoting equality across racial and ethnic groups by sustaining their culture and language.

In response to the necessity of incorporating a more culturally responsive teaching style, NYS has specifically created and adapted the principles and guidelines incorporated in culturally relevant pedagogy called the Culturally Responsive-Sustaining (CR-S) Education Framework (NYSED, 2019). This study specifically focused on how MLs and their teachers perceive the

NYS Culturally Responsive-Sustaining Teaching Framework practices in support of their learning. The creation of this framework stems from Every Student Succeeds Act (ESSA) of 2018. The purpose of this act was to provide all students with equitable access to the highest quality of educational possibilities, services, and support in schools providing useful pedagogy aligned to the state's standards, as well as positive learning environments so that each child is prepared for success in college, career, and citizenship (NYSED, 2018). That same year, the creation of the CR-S framework in NYS was developed and presented for implementation in the 2019 school calendar year.

Education statistics have shown that students from diverse and multilingual backgrounds may face a disconnect in their learning experience (Dickson et al., 2016). A development of the framework for teachers to integrate and empower these differences will lead to remarkable improvement in student outcomes (NYSED, 2019). When engaging students through their unique perspectives, they develop greater knowledge of and meaning within lessons (Irvine, 2010). Prior experiences can be used as strategies to embrace student diversity, allowing students to connect with and relate to lesson material (Gay, 2002). Low-income schools often have more MLs. To overcome this challenge, teachers must get to know these learners' backgrounds and work toward building relationships within the classroom (Villegas & Luca, 2007). Incorporating cultural experiences directly influences student learning; culture plays a significant role in human thought processes and impacts how we teach and learn (Gay, 2002). Teachers must take the time to understand their students' backgrounds outside of school by connecting with family members and community leaders. By providing opportunities for students to share their experiences in class, the classroom becomes an authentic place of learning and growth (Villegas & Lucas, 2007).

This study addressed the perceptions of MLs and their teachers toward the CR-S framework implementation. This is among the first studies to explore MLs' perceptions of the NYS Culturally Responsive-Sustaining Education Framework principles and guidelines and compare them to their teachers' perceptions of the delivery of culturally responsive-sustaining teaching. As such, this study contributed to understanding and bridging the disparities between ML students' cultural and linguistic backgrounds and their teachers.

Theoretical Framework

Understanding MLs and their backgrounds is necessary for teachers to create an effective diverse classroom. MLs require teachers who understand their backgrounds and communities that incorporate a curriculum in which their students can identify and build connections. The response of NYS to implementing such guidelines comes at a critical time as the demographics of students are rapidly changing and becoming more diverse. The Culturally Responsive-Sustaining Education Framework (NYSED, 2019) centers on solid core visions of providing education stakeholders with student-centered learning conditions that promote cultural identities; formulate clear academic results; provide opportunities to become advocates of social change; partake in individualized student engagement, growth and learning; provide opportunities for advancement and critical thinking; understanding disparity; and advancing their opportunity in becoming agents to revolutionize the historically marginalized. The framework's development and design aimed to guide and support all education stakeholders in creating and delivering effective and equitable policies that promote and assist in positive student outcomes.

The NYS culturally responsive-sustaining education framework is structured around four core principles. Those principles are (1) welcoming and affirming environment, (2) high expectations

and rigorous instruction, (3) inclusive curriculum and assessment, and (4) ongoing professional learning (NYSED, 2019).

Building Relationship/Welcoming and Affirming Environment

The first principle focuses on promoting a safe space where students of all cultural identities (i.e., race, ethnicity, age, gender, sexual orientation, disability, language, religion, and socioeconomic background) are represented, affirmed, valued, and reflected within the curriculum and treated with respect and dignity. Within this principle, all stakeholders receive a list of strategies and implementation examples to create a welcoming and affirming environment. Focusing on some of those strategies for the students is to support classmates as needed and to work to help mediate through discussion of restorative practices, address any implicit biases in the school and community environment, to build respect and mutual understanding across the school community of stakeholders, including the teachers, administrators, counselors, school aides, custodial staff, lunch and recess staff, and other stakeholders to participate in the creation and review of opportunities to dismantle systems that incorporate biases, inequities, and to restructure ideologies that are in education by becoming representatives of social change.

Some of the strategies that are teacher-focused include the following: (a) enacting classroom management strategies that avoid assigning blame or guilt to students based on perceptions about their cultures, differences, or home lives; (b) participating in the review of the school and district policies; (c) provide multiple opportunities for parents to communicate in their language utilizing multiple platforms as needed; and (d) encouraging students to take academic risks in order to create an environment that focuses on student mistakes as a learning opportunity to help the students grow both emotionally and academically.

High Expectations and Rigorous Instruction

The principle of high expectations and rigorous instruction aims to prepare the community of learners for an academically challenging environment and the opportunity for critical reasoning, taking academic risks, and fostering a growth mindset to learn from mistakes. For students, some of those guidelines are challenging themselves to do more than what feels academically comfortable to reach for higher goals and to push themselves out of their comfort zone, voicing and expressing the need to partake in challenging work and activities after achieving and understanding a certain goal, drawing upon their previous knowledge to enhance the richness of their cultural background and to make meaning of new concepts in an ongoing basis, and collaborating with teachers to foster the development of building methods and strategies to tackle challenges and failures to get stronger each time and attempting new things.

The teachers' guidelines include having high expectations and delivering a curriculum that is rigorous for all students regardless of all identity markers, including race, gender, sexual orientation, language, ability, and economic background, providing opportunities for students to critically examine topics discussing power and privilege through project-based learning activities, co-creating explicit classroom expectations that meet the needs of all students and striving to be culturally sustaining by centering the identities of all students in the classroom instruction for all to be successful. The ultimate message behind this principle is to encourage and empower a positive self-image and for others to succeed.

Inclusive Curriculum and Assessment

The inclusive curriculum and assessment principle provides the opportunity to understand the idea of promoting the voices of the historically marginalized. The learners have the opportunity to dismantle systems that incorporate biases in inequities and to restructure

ideologies that are dominant in education by becoming agents of social change. The guidelines for the students include collaborating with teachers to engage in current events in the classroom and the community, identifying gaps where the current curriculum does not address multiple perspectives of cultures and backgrounds, challenging the current system of course offerings and extracurricular activities to be equitable and accessible for all students to participate, and discussing and identifying implicit bias incorporated within the curriculum. The teacher guidelines are similar and include providing all coursework materials in multiple languages, incorporating cooperative learning activities where students can build on understanding learning support and diverse perspectives, utilizing student data points and assessment measures that reflect learning modalities and go beyond standardized testing, and playing a role in assisting students in understanding and aligning curriculum to languages, experiences, and diversity of the state population.

Ongoing Professional Learning

The final principle incorporates ongoing professional development to continuously enhance the process of implementing and developing instruction, curriculum, assessment, history, culture, and institutions. This concept stems from the understanding that learning must constantly be revisited and further developed as society changes. Teachers should develop learners in a way that provides them the opportunity to self-direct their learning and take on opportunities that propel their learning outcomes further. Both the student's and the teacher's guidelines are rooted in constantly engaging in promoting self-growth and understanding, setting professional goals, and challenging oneself to learn more about people's cultures, languages, abilities, orientations, and diverse backgrounds.

The implementation of the CR-S Framework is a means to incorporate all stakeholders (students, teachers, school leaders, district leaders, families, community members, higher education faculty and administrators, and the Education Department Policymakers) in creating and implementing a more culturally responsive-sustaining education system where educators provide all students with equal opportunity of achievement. The push for a more inclusive educational experience has been addressed by NYS across the state. This resulted in NYS compiling a pool of strategies where stakeholders can collaborate and plan for the needs of their specific community of learners.

Review of the Literature

School populations have been diversifying rapidly, increasing the number of diverse and ethnic students placed in mainstream classrooms (Garcia & Chun, 2016). There is a significant need to incorporate the cultural and ethnic backgrounds of the students into the curriculum. Delivering a culturally responsive curriculum as a teacher entails different components to acquire. A culturally responsive teaching style includes being an effective teacher, having strong teacher-student relationships, and understanding MLs (Gay, 2002).

Being an effective teacher entails having strong knowledge in your content area as well as the desire and want to understand the needs of each of your students in the classroom. Within the culturally responsive teaching framework, a teacher should possess such a quality. The students in the classroom should know that the teacher wants and is willing to incorporate all necessary components of the curriculum to connect with each learner. Therefore, the need for teacher-student relationships is required. MLs are different kinds of learners in which these previously mentioned characteristics need to be highly present. I examine and further discuss these themes below.

Multilingual Learners

MLs are students who hold different perceptions that can vary significantly from non-MLs on effective culturally responsive teaching. MLs require a different approach to their learning because of their diverse backgrounds (Watson & Houtz, 2002). MLs' achievement in their academic success entrusts to the delivery method and the teacher's characteristics to be able to reach those students for full attainment (Watson & Houtz, 2002). Teachers are often unprepared to successfully reach the ML population in their classrooms (Colombo et al., 2013). In a mainstream classroom, teachers tend to hold MLs to the same academic standards as non-MLs without providing the proper accommodations. According to Colombo et al. (2013), most teachers do not have any experience with the specific instruction of MLs in their classrooms and struggle with increasing ML students' achievement. Such diverse and ethnic learners gravitate to be more dependent on the teacher due to their lack of comfort with the English language (DelliCarpini & Guler, 2013). An establishment of trust and communication needs to be present for the transmission of information to take place. A teacher who adopts and practices the culturally responsive-sustaining education framework can easily identify such characteristics.

Teacher-Student Relationships

The teacher-student connection can strongly influence the amount of student learning that takes place (Wallace et al., 2016). Benninga et al. (1981) found that teacher behavior controls student learning opportunities in their classroom, which could affect a student's perception teacher effectiveness. The strength of teacher-student relationships in the classroom can drive the level of participation and learning for the student. MLs require attention and direction from the teacher as they are more dependent on the teacher (DelliCarpini & Guler, 2013). The students and teacher established their relationships at the beginning of the year by (Stronge et al., 2011). The establishment of trust and communication between students and teachers holds a strong

connection to the transmission of information. The stronger the teacher's relationship with the student, the less likely the student would be aggressive and disrespectful in the class (Murray & Zvoch, 2011). The relationship can also play a role in determining the probability of dropping out of high school. The teacher implementing high expectations in the classroom with a non-existent relationship with students would increase the students' dropout rate (Stronge et al., 2011).

Teachers can support their students by showing care and interest. Building a rapport with their students can manifest in a classroom where students feel comfortable and relaxed and enhance learning (Akram, 2019). Teachers who draw into their students' cultures and address their needs directly influence their students' willingness to learn (Banse & Palacios, 2018). Liakopoulou (2011) added that teachers' effectiveness is their ability to understand and recognize student diversity and choose the best method for each student individually. Murray and Zvoch (2011) stated that the quality of the relationship between the teacher and the student is strongly associated with the decline of aggression between diverse students and their teachers.

Roorda et al.'s (2011) study explained the importance of student-teacher relationships with diverse students. There was a significant impact on diverse students than on their non-diverse peers. Diverse students require a different approach to learning in our current school system. The role of the teacher-student relationship has a substantial impact on the diverse students' comfortability in the school and classroom and the students' learning outcome (Gay, 2002). Teacher behavior towards MLs directly correlates to the students' learning opportunities in their class (Benninga et al., 1981).

Teacher Characteristics

MLs' achievement can depend on the type of delivery and the characteristics of the teacher. The teacher-student connection can strongly influence the amount of student learning that occurs (Wallace et al., 2016). Benninga et al. (1981) explained that teachers' instructional demeanor controls student learning opportunities in their classroom. Generally, teachers are not adequately prepared during pre-service training to successfully reach the ML population in their classroom (Colombo et al., 2013). Teachers hold the MLs to the same academic standard as non-MLs without the proper accommodations, which does not allow for a full understanding of the material taught. Colombo et al. (2013) concluded in their study that most teachers lacked experience with specific instruction of MLs in their classrooms and struggled with increasing MLs' achievement. MLs tend to be more dependent on the teacher since they are not proficient in English (DelliCarpini & Guler, 2013). The establishment of trust and communication needs to be present for the transmission of information to occur. A culturally responsive teacher can recognize characteristics that teachers should identify with and strategies they should utilize in the classroom.

Villegas and Lucas' (2002) study discussed six characteristics of a culturally responsive teacher. The first characteristic is a teacher possessing a socio-cultural consciousness that recognizes that there are multiple ways of viewing reality. Characteristic number two is a teacher who understands the views of students from diverse backgrounds, being able to use resources for learning in all students rather than viewing differences as problems to overcome. The next characteristic is a teacher who sees themselves as both responsible for and capable of bringing educational change to students, making education more responsive to all.

Another teacher characteristic is understanding how learners construct knowledge and can promote learners' knowledge construction. The next characteristic a culturally responsive teacher knowing about the lives of his or her students. Finally, the last characteristic a teacher should entail is using their knowledge about students' lives to design instruction that builds on what they already know while stretching them beyond the familiar. These six qualities are the core of teaching and allow the curriculum to be reached and absorbed by all students, especially the linguistically diverse population.

Senko et al.'s (2012) study explained that students rate teachers' enthusiasm, topic expertise, and reasonable workload as the more important traits for teachers to possess. Liakopoulou (2011) stated characteristics necessary for a teacher: flexibility, sense of humor, fairness, patience, enthusiasm, creativity, care, and interest in their students. Possessing such traits can affect the degree of commitment, how they teach, treat their students, and measure their professional growth (Liakopoulou, 2011).

A topic of many studies defining what an effective teacher consists of has been personality and personal traits. McBer (2000) categorized such traits into five categories: professionalism, thinking (analytical and conceptual), expectations, leadership, and relations with others. McBer (2000) defined *professionalism* as commitment, confidence, trustworthiness, and respect components of personality traits. The leadership component consists of being flexible, accountable, and passionate about learning. Too often, teachers enter the teaching profession without some or all of these personality traits, potentially negatively impacting student learning.

Teachers teaching in low-income schools reported using the Culturally Responsive Teacher Framework (CRT-F) to constantly adapt their teaching to this framework, creating

strong bonds with their students to foster academic success (Hramiak, 2015). Displaying culturally responsive characteristics as a teacher of linguistically diverse students would build a relationship with the students and show interest in their lives and families (Liakopoulou, 2011). Teachers who transmit caring about their students have higher levels of achievement than teachers who are perceived as uncaring (Stronge et al., 2011). Teachers do not know enough about the different cultures' contributions to their subjects or areas (Gay, 2002). Culturally responsive teachers are socioculturally conscious, have affirming values, see themselves as responsible and bringing about change, understand how learners synthesize knowledge, know about their students' lives, and design instruction that builds on their students' previous knowledge (Villegas & Lucas, 2002). The basic framework of the CRT- F has the following characteristics which are (a) acknowledging the different cultural heritages of people that affect their learning as valuable content for the curriculum; (b) bridging the gap between home, school, academic concepts, and sociocultural realities; (c) deploys a variety of teaching and learning strategies; (d) encourages and instructs pupils to embrace and praise each other's cultural heritages; and (e) incorporates a range of multicultural information, resources, teaching and learning materials across all school subjects within the curriculum (Gay, 2002).

Pre-service teachers must have the necessary skills to critically reflect on their own racial and cultural identities and recognize they coexist with their students' cultural compositions. Some questions that teachers should consider in this reflective process could include: (1) How frequently and what types of interactions did I have with individuals from racial backgrounds different from my upbringing? 2) Who were the primary persons who helped to shape my perspectives of individuals from different racial groups? How were their opinions formed? (3) Have I ever harbored prejudiced thoughts towards people from different racial backgrounds? (4)

If I harbor prejudiced thoughts, what effects do such thoughts have on students from those backgrounds? (5) Do I create negative profiles of individuals from different racial backgrounds? (Howard, 2003).

Effective Teaching

Akram (2019) defined an *effective teacher* as someone who demonstrates competence in their subject matter, implements various instructional delivery methods, assesses the students in various manners appropriate to their learning, and develops relationships with the students. Based on this definition, teachers of MLs should first have a strong understanding of their subject matter and various pedagogical approaches to creating and sustaining a culturally responsive curriculum (Hramiak, 2015). Teachers should also provide all students the greatest opportunities to achieve in their class by utilizing appropriate instructional methods for MLs.

Effective teaching is needed to incorporate a culturally responsive teaching framework. Teaching is a multidimensional profession, especially relating to diverse and ethnic students, and one of those components is effective teaching. Studies have shown that an effective teacher has higher student achievement in their classrooms (Akram, 2019; Harris et al., 2014; Stronge et al., 2011).

First, one must investigate the characteristics of an effective teacher to be able to accurately implement and measure their use and delivery of a culturally responsive curriculum. Stronge et al. (2011) summarized aspects of effective teaching in the following manner, which included identifying the knowledge and skills pre-service teachers require, hiring possibly effective teachers through the hiring process, creating, and implementing meaningful professional development, evaluating teachers as truthfully as possible, and dismissing ineffective teachers when necessary.

An effective teacher demonstrates deeper knowledge, focuses on understanding and the meaning of the content and implementing the curriculum effectively by focusing on conceptualizing knowledge rather than just facts and memorization (Liakopoulou, 2011; McBer, 2000; Stronge et al., 2011). Displaying competence in their subject matter is a necessary measure of implementing a culturally responsive teaching framework. Such a teacher uses a wide array of instructional techniques to deliver their subject matter, including direct instruction, individualized instruction, discovery lessons, and a hands-on approach to learning while checking for student understanding and adjusting the lesson accordingly based on feedback. Teachers should provide students with basic skills and critical thinking techniques that allow them to become successful in their learning and educational journey (Stronge et al., 2011). The implementation of various forms of assessments and understanding which assessment type is appropriate at a specific time in the lesson is an additional quality of an effective teacher in their subject matter (Akiri, 2013). Through assessment, a teacher can provide feedback to students and help them improve (Akram, 2019).

Effective teaching magnifies student interaction where the student feels comfortable and relaxed, producing a respectful environment in building a rapport with the students to foster their success (Akram, 2019). Effective teachers spend less time on classroom management and more time teaching through a productive learning environment that contains routines and rules. Teachers demonstrating respect, fairness, and setting clear expectations throughout the school year help to shape an effective classroom environment. Creating such an environment links directly to the teachers' ability to understand the students' academic, social, and personal needs (Stronge et al., 2011).

There are a few theoretical proposed models of teacher effectiveness as defined by Wallace et al. (2016). The first one states that following the two-dimensional structure of academic press and social support for learning results in effective teaching. This theory of effective teaching focuses on the rigor and preparedness of the student as it pertains to the standards of society. This social support theory promotes and grows the students' sense of trust, confidence, and psychological safety.

Another theoretical model that discusses an effective teacher entails classroom organization, instructional support, and emotional support. The teacher's ability of classroom organization indirectly helps the students coordinate their attention and behavior towards the academic activities in such a classroom. The instructional support component of this theory refers to the promotion of the student's ability to understand how facts are organized and connected. The teacher also provides feedback to the students during instruction to cultivate the students' lens of understanding the instruction and reflect a more advanced additional approach.

The next theoretical model of effective teaching proposes a seven-dimensional structure: caring, conferring, captive, clarifying, consolidating, challenging, and controlling (Wallace et al., 2016). Teachers should be responsible for fostering the students' points of view and encouraging them to express themselves. This theory also mentions the teacher's role in captivating the students' attention by making the lesson interesting and relevant. Also, teachers should clarify students' understanding by diagnosing any gaps they may possess and giving the student multiple ways to express their ideas. And lastly, this theory stimulates the teacher to consolidate students' organization to prepare students for the future. Successful teachers must create a new way of looking at teaching grounded in understanding the role of culture and language in learning (Villegas & Lucas, 2007).

Conclusion

Research has shown that utilizing the characteristics implemented in the CR-S framework can greatly benefit the diverse and ethnic backgrounds of MLs. MLs have constantly been a focus and remains to be relevant to accommodate their needs as a shift in schools. The ultimate message is to provide a framework where a change in attitudes toward cultural, racial, and ethnic diversity are a high concern (Hramiak, 2015). Current literature has presented the development and adaptations of the NYS Culturally Responsive-Sustaining Education Framework. This study is a first as it relates to MLs' perceptions of the Culturally Responsive-Sustaining Framework and connects those findings to the perceptions of their teachers' delivery of the CR-S framework.

Providing a culture in the classroom where accounting for all students and their diverse and ethnic backgrounds is the ultimate recipe for success. As Gay (2002) mentioned, incorporating student culture directly affects their learning. Teaching requires a deep understanding of the content as well as the student. Effective teaching encompasses the characteristics of a culturally responsive-sustaining teacher by displaying competence in the subject matter and then making the proper connections to the students' lived experiences (Stronge et al., 2011). Through making the connections to the student's past experiences, you must have a relationship to gain the knowledge to do so. Teacher-student relationships are a building block for students' academic success (Stronge et al., 2011). Having a trusting relationship between the teacher and the students, especially MLs, plays an essential role in the students' ability to become comfortable and willingly approach learning (Banse & Palacios, 2017). The NYS Culturally Responsive-Sustaining Education Framework is necessary to bridge

MLs' academic success with teacher delivery. The perceptions of both the MLs and the teachers should be in sync with their perceived understandings and expectations.

Chapter 3

Methods

The number of students from culturally, ethnically, and linguistically diverse backgrounds is steadily increasing in the United States, with estimates suggesting they will represent 40% of the population by 2030 (Dickson et al., 2016; Thomas & Collier, 2002). In Nassau and Suffolk counties on Long Island, over 13% of daily life speakers of two or more languages qualify as MLs (NYSED, 2016). As the number of MLs in classrooms grows, instruction must adapt to meet their needs and set them up for success in mainstream classrooms (Machado, 2017).

While progress continues to occur in this area, there is still much room for improvement. The New York State Education Department has created and implemented the NYS Culturally Responsive-Sustaining (CR-S) Education Framework's four guiding principles of practices in the curriculum, focusing on the needs of MLs to achieve academic success (NYSED, 2019). While this framework has not been used extensively in research, previous studies have shown the benefits of culturally responsive teaching practices in mainstream classrooms for MLs (e.g., Brown, 2004; Gay, 2002; Hramiak, 2015; Ladson-Billing, 1995; Machado, 2017). However, further research is necessary to examine the implementation of culturally responsive-sustaining teaching strategies specifically for MLs and their teachers' perceptions. Concerns exist regarding the potential disconnect between teacher delivery of culturally responsive-sustaining teaching strategies and how MLs perceive and receive them.

Statement of the Problem

This study sought to investigate the shared and disparate views of MLs and mainstream teachers with MLs in their classes in relation to the NYS CR-S framework. By examining

teaching approaches through the eyes of both students and teachers, this study aimed to address the gap in understanding regarding the effectiveness of CR-S strategies for MLs in the classroom. Specifically, the study aimed to explore how both multilingual students and their mainstream teachers perceive the effectiveness of teaching methods designed to meet the needs of MLs.

MLs need special teaching methods to meet their distinctive learning needs. General education teachers, not trained to teach English as a second language, may not possess the qualifications to adequately support this student group (Colombo et al., 2013). Not receiving accommodations hinders MLs' educational progress. Mainstream educators have trouble helping this population reach their academic potential due to a lack of knowledge and experience in providing the specialized instruction that these learners require (Colombo et al., 2013; DelliCarpini & Guler, 2013).

The CR-S Framework is an educational tool that empowers teachers to bring out their students' potential — specifically those from more diverse backgrounds. It provides teachers with a theoretical basis for creating a supportive, socially interactive environment where learning can thrive (Gay, 2002). The framework recognizes the impact of various societal and cultural factors on student development and performance (NYSED, 2019).

By drawing upon the cultural identity and backgrounds of students in their lesson plans, teachers can construct a classroom atmosphere that helps all students feel like they belong. This tweak in teaching style helps foster better academic achievement among linguistically diverse students (Gay, 2002). With the use of the CR-S framework, educators have the power to create a learning atmosphere that encourages growth and recognition.

Purpose Statement

This concurrent mixed-method study aimed to understand both the perceptions of MLs and teachers regarding the NYS Culturally Responsive-Sustaining Education Pedagogical approaches in the mainstream classroom. The purpose of this study was to gain insight from both MLs and mainstream teachers to identify characteristics and teaching techniques that they consider were linked with their cultural environment to facilitate differentiated learning for diverse and ethnic students. Mainstream teachers teach MLs in their classrooms every year but might not successfully implement strategies that diverse and ethnic students require.

Many teachers with multilingual students in their classes do not receive formal training to instruct those with diverse needs, like MLs. To effectively teach these pupils, a more modified approach is necessary. This study examined mainstream teachers and MLs' perceptions of CR-S's pedagogical approaches in the mainstream classroom setting. It examines how characteristics and teaching strategies can foster successful diverse and ethnic student learning by collecting input from both groups. The aim is to give teachers the tools to successfully reach the varying needs of all their students, especially those who need an alternate knowledge delivery system such as MLs. Multilingual students require an adapted method for enhancing their learning experiences and feeling embraced in a mainstream environment (Gay, 2002). Through this inquiry, multicultural students' points of view helped create the appropriate links for successful varied and ethnic learners' education. Moreover, it may support educators in reflecting on their instructional practices, styles, and delivering methods; likewise, MLs can understand more about the NYS CR-S framework and their own needs if they wish to achieve success in typical classrooms.

Research Questions

This study addressed the perceptions of the NYS CR-S framework principles from both MLs and their mainstream teachers. First, this was among the first studies to examine MLs' perceptions and compare them to their mainstream teachers and the first study to utilize the NYS CR-S framework as a tool for measurement.

Implementing a culturally responsive-sustaining teaching style has shown to be the most effective pedagogical attempt for ML success in classrooms (Hramiak, 2015). This study added to the importance of culturally responsive teaching as it connects to the growing population of ethnic and diverse students. With these goals in mind, this study explored the following research questions:

Overarching Research Question:

How do ML's perceptions and experiences of the CR-S framework classroom implementation and strategies differ from the perceptions of their teachers?

Quantitative Research Questions:

1. Is there a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery?

   Ho: There is no difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery.

   Ha: There is a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery.

2. What differences exist between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom?

Ho: There is no difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom.

Ha: There is a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom

3. Do MLs' and teachers' perceptions of the CR-S framework strategies differ by gender or ethnicity?
    a. Is there a significant difference in ML students' ratings of CR-S strategies in the general education classroom by gender?

        Ho: There is no difference in ML students' ratings of CR-S strategies in the general education classroom by gender.

        Ha: There is a difference in ML students' ratings of CR-S strategies in the general education classroom by gender.

    b. Is there a significant difference in ML student' ratings of CR-S strategies in general education classroom by ethnicity?

        Ho: There is no difference in ML student' ratings of CR-S strategies in general education classroom by ethnicity.

        Ha: There is a difference in ML student' ratings of CR-S strategies in general education classroom by ethnicity.

    c. Is there a significant difference in teachers' ratings of CR-S strategies by gender?

        Ho: There is no difference in teachers' ratings of CR-S strategies by gender.

Ha: There is a difference in teachers' ratings of CR-S strategies by gender.

d. Is there a significant difference in teachers' ratings of CR-S strategies by ethnicity?

Ho: There is no difference in teachers' ratings of CR-S strategies by ethnicity.

Ha: There is a difference in teachers' ratings of CR-S strategies by ethnicity.

Qualitative Research Questions:

4. What characteristics and teaching strategies do MLs and mainstream teachers find culturally responsive and sustaining in support of their education and learning?
5. How do teachers' perceptions of the CR-S framework contribute to their perceptions of the MLs?

Integrative Research Question:

6. To what extent and in what ways do qualitative interviews with students and teachers serve to contribute to a more comprehensive and nuanced understanding of the CR-S framework with and for MLs, via integrative mixed-methods analysis?

Methodology

Research Design

The purpose of choosing to conduct a mixed-methods research study as defined by Beaudry and Miller (2016) was to "provide the ability to investigate a problem fully by drawing on quantitative measures to determine frequencies and relationship of variables, as well as on quantitative tools to provide insight into meaning and understanding" (p. 242). This study used a concurrent triangulation mixed-methods design defined as a method of collecting data

simultaneously to inform the relationship more accurately among the variables to be examined (Creswell et al., 2003). This mixed-method design allowed for data collection of both quantitative and qualitative strands of data about MLs' and teachers' perspectives from surveys and focus groups. This method provided strength to the study allowing data collection in the survey form to reach a large group of participants and then gathering participants willing to participate in focus groups further to express their reasonings and strategies towards the CR-S framework.

Concurrent triangulation mixed-methods provided a comprehensive investigation of both the quantitative and qualitative research problems (Beaudry & Miller, 2016). I used a two-phase approach, executing the quantitative strand first and then the qualitative, where the results were separately analyzed and then compared. In this concurrent design, both quantitative and qualitative strands were weighted equally, which further strengthened the results and output of the study.

I collected the data from questionnaires and focus groups. MLs were surveyed and placed in focus groups to gain an understanding of their perceptions of the Culturally Responsive-Sustaining Education Framework utilized in their mainstream classes. Teachers of MLs in a mainstream classroom were also surveyed and placed in focus groups to gain an understanding of their perceptions of incorporating the CR-S framework. The results of these measurement tools for both sets of participants were also analyzed with the framework's principles.

This data shed light on the comparison between students' perceptions and teachers' perceptions of the culturally responsive-sustaining guiding principles. The perceptions of MLs allowed for a better understanding of how they perceive and connect to specific characteristics, strategies, or lesson delivery techniques their teachers implement in a mainstream classroom.

Additionally, the teachers' perceptions also helped identify the use of culturally responsive-sustaining teaching. Through the questionnaire and focus groups, the teachers had time to reflect and understand what characteristics, strategies, or lesson techniques they utilize to accommodate their diverse and ethnic students in the classroom.

A mixed-methods approach best aligned with this study as the two phases of the concurrent design, both quantitative and qualitative, provided a strong understanding of the data findings. The quantitative portion of the survey data collection allowed for a large group of participants to reveal MLs and teachers' experiences with culturally responsive-sustaining teaching. The qualitative portion collected similar data through focus groups. This data provided a deeper understanding of MLs and teachers' perceptions of culturally responsive-sustaining teaching. I conducted two phases and analyzed them separately but then compared them to each other to provide a robust analysis of the overall findings.

Worldview and Role of the Researcher

I found the problem-centered pragmatistic worldview most closely aligned with this mixed-methods research design. A pragmatistic worldview describes the importance of focusing on social science research and then using pluralistic approaches to collect further knowledge about the problem (Creswell & Creswell, 2018). This worldview connects to a mixed-methods design where the researcher collects diverse types of data that provide a complete understanding of the research problem that quantitative or qualitative data could not do alone. There are many components of a pragmatic worldview toward a research problem. As mentioned in Creswell and Creswell (2018), "researchers look at the *what* and the *how* to research based on the intended consequences…" (p. 11). This study intends to identify the various strategies and evidence of MLs' and teachers' perceptions of culturally responsive-sustaining teaching.

The role of the researcher is to recognize the problem, compile initial data, develop a plan of action, execute the plan of action, collect and examine data outcomes, and evaluate the results (Beaudry & Miller, 2016). The researcher ensured the instruments and the techniques used are non-bias and appropriate for this research. The researcher also ensured non-bias as an ML and a teacher of ELLs riding on certain experiences and expectations. Those potential biases were mitigated through thorough field notes from the focus groups, ensuring the language in the survey measure was understandable and comprehensible to all participants. The researcher identified the appropriate participants needed to conduct the study. Additionally, the researcher produced analysis reports and discussed the study's findings, further recommendations, and discussed limitations.

Site Selection

The sites used in this study included two diverse suburban high schools on Long Island. These sites were selected based on the demographics of the student population and their location; one of the high schools was in Suffolk County, while the other was in Nassau County. The demographic breakdown of the first school is 79% Latinx, 16% Black, 2% White, and 3% Other (Asian, Pacific Islander, American Indian, Alaskan Native, or Multi-racial). Twenty-seven percent of the school's total number of students, which is 2,399, are coded MLs. The second site's breakdown of its student population is 49% White, 4% Black, 32% Latinx, and 14% Other (Asian, Pacific Islander, American Indian, Alaskan Native, or Multi-racial). Of the school's total number of students, which is 1,076, 9% are coded MLs.

Population & Sampling

The population for this study included two different groups of participants: MLs placed in mainstream classrooms and teachers of mainstream classrooms who were teaching MLs. MLs

were defined and identified as students that are coded ML (or recently tested out and still receiving accommodations) and were in general education classes. These students were between the transitioning and commanding stage of a ML performance level.

In NYS, there are over 2.6 million public school students, of whom 8.8% are English Language Learners, representing 245,000 of the population. The percentage of students who qualify as MLs is steadily increasing and is currently at 54% for Nassau and Suffolk counties in Long Island, NY. According to the NYSED Enrollment Data, the current top Long Island school districts with multilingual learner populations are Brentwood (n = 6,339), Hempstead (n = 2,936), and Central Islip (n = 2,122). These school districts' population consists of 36% for Brentwood, 42% for Hempstead, and 33% for Central Islip (2021). These students are considered developing and long-term ELLs displaying a shift in the population as becoming more ethnically and linguistically diverse (NYSED, 2019).

For this study, I recruited 747 ML students and 192 mainstream teachers of ML students to participate. The sample size was determined based on the Cochran formula using a population size of 747 multilingual students, a margin of error of 5%, and a confidence level of 95%, which resulted in a sample size of 254 students. Similarly, I recalculated the sample size for the teacher participants with a larger margin of error (+/-15%) and confidence interval of 80%, which required a minimum sample size of 17. For this study, a total of 29 teachers accessed the survey. However, after adjusting for missing responses, a total of 19 teachers were included in the final analysis. The new sample size for students is large enough to be generalizable to a larger population. The teachers of mainstream classrooms had ML students on their roster, and they were not formally trained or had received a certificate in teaching English to speakers of other

languages education. For the qualitative part of the study, the estimated sample size included 5-8 students and 5-8 teachers.

The study examined MLs' perceptions of the NYS CR-S framework principles and guidelines and the teacher's perceptions of their delivery of those principles and guidelines. I surveyed both participation groups using a questionnaire that contained criteria from the CISSA survey tool and was placed in focus groups utilizing the CISSA instrument to understand their perceptions and recognition of culturally responsive-sustaining teaching for this study.

Data Collection

I first conducted data collection quantitatively and after the qualitative methods took place. I invited the multilingual learner participants to partake in a survey to initiate the data collection (see Appendix A). The mainstream teachers also filled out a questionnaire parallel to the student one (see Appendix B). Once the data collection from the surveys was complete, both sets of participants were placed in focus groups separately.

Phase 1- Quantitative. The data collection for this mixed-methods study used questionnaires completed by the MLs. Qualtrics was the platform used for the questionnaire in this study, and it consisted of a demographic section as well as four parts that directly linked to the NYS Culturally Responsive-Sustaining Education Framework's four principles. The CISSA survey (McDermott Goldman, 2021) was the instrument utilized. CISSA stands for culture, integration, strategies, support, and assessment. Each core part of the survey varied in length and was structured parallel to the guidelines within each principle of the CR-S framework. The CISSA survey for both the MLs and the mainstream teachers took approximately 7-10 minutes to complete.

In the CISSA survey for the students, the first part focused on how they perceive their teachers' reflection on building relationships and creating a welcoming and affirming environment through 18 Likert-type scale questions. A sample question for this section included the following item: “My teacher helps me feel safe and anxiety-free in my class.” The second part of the survey focused on high expectations and rigorous instruction structured with 19 Likert-type scale questions. A sample question included: “My teachers help me feel comfortable taking risks when I am learning and make sure I am not afraid to try new things.” Inclusive curriculum and assessment were the third part which contained 17 Likert-type scale questions. A sample question of this section was, “I feel my teacher challenges me every day to be successful and feel positive about my learning.” The final section consisted of reflections on ongoing professional learning, and there were 7 Likert-type scale questions in this part. A sample question from this part was. “My teachers encourage me to learn new tools and strategies to help me learn.” Students completed this CISSA survey via an email invitation using the Qualtrics platform during or after the school day by the participating MLs.

The teachers also filled out a questionnaire that was parallel in design. The questions mirrored the students’ questionnaire, where the teachers were reflective on their pedagogical approaches regarding the NYS CR-S framework’s four principles and guidelines.

The first part of the teachers’ CISSA survey focused on the reflection on building relationships and creating welcoming and affirming environments with a total of 20 questions. A sample question from this part was, “I think it is important, and I take time to build relationships with all my students, including those that are culturally and linguistically diverse.” The next section focused on the elements of high expectations and rigorous instruction through 19 Likert-type scale questions. A sample question from this section included, “Students take pride in their

work and focus on continuous improvement." I structured the third part with 18 Likert- type scale questions focused on inclusive curriculum and assessment. A question sample from this part was, "Curricular materials are reflective of student's cultural and linguistic backgrounds." The final part of this survey highlighted ongoing professional learning through 11 reflective questions. "I had many opportunities to continue learning and strengthen my teaching to meet the diverse needs of my students" was a sample question from this final part.

The results of the questionnaire were analyzed to discover characteristics and strategies the students identified pertaining to their teacher that represent the CR-S framework's principles in their teaching. The teacher questionnaire results informed the use and attempted utilization of a culturally responsive-sustaining teaching framework in their teaching styles. Additionally, I compared the results using the inferential statistics of the independent sample *t*-test, Analysis of Variance (ANOVA), Mann-Whitney, and Chi-Square, highlighting the similarities and differences between the various variables such as perceptions of teacher effectiveness, strategies, and characteristics. Examining these characteristics, as measured by the survey, provided a basis for understanding the components of the CR-S framework for MLs in mainstream classrooms and their teachers' ideas of incorporating the CR-S framework. Upon completion of the questionnaires by both the MLs and the teachers, an SPSS analysis was conducted for the *t*-test, ANOVA, and Chi-Square analyses. I interpreted and recorded the data to display the results of the questionnaires.

Phase 2: Qualitative. Once participants completed the questionnaires, I invited both sets of participants to partake in the focus groups. Each focus group consisted of no more than 3-5 participants at a time. The focus group questions (see Appendix C and D) were parallel to the questionnaire questions used in the CISSA survey reflecting the NYS CR-S framework's four

principles and guidelines. I asked the teachers to identify and describe components, strategies, and characteristics they incorporate into their mainstream classrooms to connect with their MLs. The CISSA questions tool consisted of five components of culture and knowledge (2 questions), integration and connection (3 questions), strategies and instruction (1 question), support and collaboration (2 questions), and assessments and products (3 questions) consisting of a total of 11 questions. The MLs also were asked similar questions to gain a personal perspective on their ideas and understandings of culturally responsive-sustaining teaching in their classroom. Each focus group was about 30-40 minutes long. All focus groups were recorded and transcribed upon completion.

Once the questionnaire and focus groups with both the MLs and teachers were finished, the themes were carefully examined for any overlapping trends. The identification of the common themes was then compared to the NYS CR-S's four principal guidelines. I used the framework to review and identify the strategies and characteristics both the MLs and the teachers identified.

Data Management and Analysis

According to Creswell and Creswell (2018), under a convergent concurrent mixed-methods design, “the researcher conducts both quantitative research and qualitative research roughly at the same time…” (p. 15). Following this guideline, the two data sets were analyzed and then integrated for the final analysis of the results in a comparative manner to the culturally responsive teaching framework. Below is a description of the methods and tools used and how the data was analyzed and stored.

Quantitative analysis. For this study, the use of SPSS and Intellectus Statistics software programs allowed the recording of all data and performed all necessary quantitative data

analyses and calculations. The results from the survey were extracted from the Qualtrics platform as an SPSS file and uploaded into an SPSS data file. The file was then prepared and formatted for the analyses. I cleaned the data collected from both the ML and teacher participants to ensure all entries were valid. During analysis, I removed teacher questions to align directly with the students since I asked the teachers a few more in-depth questions. I conducted the final analysis using the Intellectus Statistics program. I also conducted a descriptive statistical analysis to interpret the data findings. I conducted independent sample *t*-tests, ANOVA, Mann-Whitney and Chi-Square inferential tests for the variables measured. Once I conducted these tests, I addressed the quantitative research questions according to the findings.

Qualitative analysis. Following the participating MLs and the teachers' completion of the survey, the qualitative data collection commenced in the form of detailed notes from observations and audio recordings of each focus group that I transcribed using an independent online transcription service. While thoroughly reviewing the qualitative data, codes, and themes were generated based on the theoretical framework, concepts covered in the quantitative instruments, as well as emerging codes from the data. I used both the deductive and inductive approaches to create qualitative data themes. The transcriptions and the detailed notes were uploaded to the Dedoose software program to code the themes found.

I then integrated the results from the quantitative and qualitative data collection to interpret the overall results. The interpretation of results took place to build a foundation of the characteristics and the strategies revealed to represent the NYS Culturally Responsive-Sustaining Education Framework for MLs in a mainstream classroom. While analyzing the CR-S framework, I searched the themes and findings from the questionnaires and focus groups. At this point in the data analysis, I compared the understanding of effective teacher characteristics and

strategies identified to the current description and themes built into the CR-S framework's four principles and guidelines.

Research Quality

The validity and reliability of this study were important. As Creswell and Creswell (2018) mentioned, the researcher must be aware not to compromise the findings. The researcher ensured a full analysis of the quantitative results against the culturally responsive teaching framework. I ran the correlational analysis and analyzed it multiple times. I cleaned the data to ensure the validity of the entries. The qualitative data needed to be reviewed differently for validity purposes. During the focus group, the researcher made sure that the responses were clear and concise so that they were interpreted and discovered the themes within them later. If there were any ambiguous comments made, the researcher asked follow-up questions as necessary.

The reliability of the CISSA instruments and the internal consistency of the measures were confirmed in this study. Cronbach's alpha tests were run for both the student and the teacher survey. In this study, the removal of certain questions occurred to connect each question successfully between the student CISSA survey and the teacher CISSA survey since the initial survey's did not have the same number of questions as the teacher version questions went into a bit more detail. However, all the questions were administered to participants when collecting data. The Cronbach's alpha for all the questions in the student CISSA survey was .973, which indicates a high level of internal consistency, and the Cronbach's alpha for all the questions in the teacher CISSA Survey was .951, which indicates a high level of internal consistency as well. For the student CISSA survey, a reliability measure of Cronbach's alpha was then conducted for each subscale. The results are listed in Table 1, and present high consistency across all parts of the CISSA measure for both teachers' and students' versions.

Table 1

Reliability of CISSA Measure

Cronbach's Alpha	CISSA for Teachers	CISSA for Students
Overall	.951	.973
Part 1: Building Relationships/Welcoming and Affirming Environment	.894	.904
Part 2: High Expectations and Rigorous Instruction	.865	.910
Part 3: Inclusive Curriculum and Assessment	.894	.893
Part 4: Ongoing Professional Learning	.884	.873

There was also the possibility of internal and external validity issues. Creswell and Creswell (2018) mentioned the possibility of these two types of validity scenarios. The external validity concern that could arise in this study was the results not being beneficial to the entire population from both samples used. The researcher was aware that all MLs are at different levels, and their needs can vary. Some MLs can be more adaptive and have a stronger understanding of the English language. The MLs can also have a higher level of understanding in that specific content course describing the qualities of the NYS CR-S framework. Additionally, the researcher was aware that the teachers used in this study might have varied experiences with MLs in their classrooms.

Also, the teachers might not hold ESOL certificates, but some might have engaged in more professional development than others on diverse and ethnic students. This study presumed

for these forms of external threats, so they were considered minimal among similar diverse student populations within suburban and urban high schools in this metropolitan region.
The reliability of the instruments used in this study were also confirmed. The students' and the teachers' questionnaires were designed parallel in nature. Both sets of participants answered similar questions to allow for a valid analysis. The criteria, structured from the NYS Culturally Responsive-Sustaining Education Framework, were in terms that are understandable to the MLs. The importance of the trustworthiness of data in qualitative research was significant.

Creswell and Creswell (2018) discussed the validity and reliability of qualitative research as ensuring the accuracy and credibility of their findings by engaging in certain procedures. Some of the necessary components of providing trustworthiness included using rich descriptions, member checking, clarifying any bias, and triangulation of the data sources. I recorded the focus groups and transcribed to refer as needed. Also, the researcher had a translator if the students do not have a strong grasp of the English language to have been able to articulate effectively. This translator ensured the proper communication and assisted in ensuring the exact interpretation and explanation. During the focus group process, I also confirmed the reliability of the focus groups. Again, both sets of participants partook in similar focus group questions to ensure connections for comparison between the two.

Limitations

Creswell and Creswell (2018) discussed that a concurrent mixed-methods study could have potential limitations in its design. Contradictions or incongruent findings could occur, and one must ensure the alignment between the questionnaire questions and the focus group questions. The measurement of the data could also have been a limitation of this study based on how I gathered the data. There could have been a potential question not addressed in the

questionnaire that could have been useful to address a particular issue. Also, after gathering the data, a limitation could be how the data was reported. Self-reported data was rarely independently verified. The responses only hold as much as what participants share in the data collection. There could have been cases of bias, selective memory, telescoping, attribution, and exaggeration. These were some potential limitations to the design of the study but also considered the researcher's limitations.

A researcher can bring forth limitations. The timing of the study could create a limitation. The researcher conducted this study for only a period of time and during a specific period of the school year. This could have been different from year to year as well as month to month, so the findings might not be able to speak for every instance of that problem. Additionally, the researcher could look at the data and the findings and interpret the findings with unconscious bias. The researcher, when stating and explaining the problem, could have described the issue in a negatively biased way. If the researcher was aware of the bias, they must have stated it in their results. As the study progressed, the researcher adjusted and addressed any other issues.

Ethical Considerations

This study had potential ethical issues that could have arisen. The MLs participating in this study could have potentially not felt supported and might believe that participating in such a study could affect their classroom grades in the class. In conducting this research, it is important to provide directions in both English and their native language. Additionally, the teacher participants could have assumed that I reported the results and confessions of utilizing a culturally responsive-sustaining teaching framework to administrators, and they could receive reprimands. Both the MLs and the teachers were informed that their responses would remain

anonymous. While this was true for the quantitative phase, it is not possible to maintain anonymity in the qualitative phase.

The researcher ensured the protection of the human subjects by providing explicit details about the study and explaining to the participants how their participation in this study benefited MLs and teachers. Additionally, the researcher provided a safe space and built trust with all participants. The questionnaire and focus group questions were straightforward and not misleading. It was the researcher's primary priority to ensure the safety and trust of all the participants and their information, providing data to enrich the field of education.

Conclusion

The significance of this study was to determine what perceptions MLs have about culturally responsive-sustaining teaching from their teachers in mainstream classrooms and compare those perceptions to the perceptions of the teachers. I addressed the issue using a concurrent mixed-methods design approach, consisting of a two-phase data collection process for both sets of participants. In the first phase, I administered a questionnaire based on the NYS Culturally Responsive-Sustaining Education Framework's CISSA instrument to both the teacher and MLs. The questionnaire focused on the teachers' use of the CR-S framework's four principles, and I asked both parties to provide their reflections.

In the second phase, I conducted focus group discussions with MLs in groups of 3-5, where I asked them to elaborate on the teachers' culturally responsive-sustaining teaching qualities and strategies based on the questions from the questionnaire. Similarly, the teacher participated in the questionnaire and then placed in a focus group to further reflect on their usage of the CR-S framework's four principles.

I conducted a cross-analysis of the quantitative and qualitative data to compare the results. I conducted the study during the second half of the school year, which allowed the MLs to establish a relationship with their teachers and familiarize themselves with the lesson strategies. Thus, the teachers reflected on their use of the CR-S framework throughout the entire school year.

Chapter 4

Results

The purpose sought to gain insight into teachers' and their ML students' perceptions of the delivery of the CR-S Framework. It focused on MLs in general education classrooms, examining whether the strategies the teachers employ according to the CR-S framework are reflected in the students' perceptions through the use of the CISSA (a tool designed parallel to the NYS CR-S framework's four core principles) survey. Additionally, through small group interviews, both sets of participants further explained the characteristics of CR-S strategies used in the classroom. In this chapter, the results from the quantitative and qualitative data analysis are presented, including an overview of the sample participants, inferential statistics, and the corresponding theme analysis. Finally, I included an integrated mixed-methods section.

Under the dissertation's study concurrent parallel mixed-methods research design, data were collected in two phases. I conducted Phase 1 via the Qualtrics online survey software. Initially, I reached out to one high school that I selected to conduct my research. I contacted the school district to receive approval, and then via email and phone calls, we determined which students and teachers met the criteria to participate in the study. An email was sent to the school district to distribute the survey to qualifying participants. The district sent out two emails, one to the teachers and MLs, respectively, inviting them to partake in the survey. After three months of the survey being active with the one school district, there was not a large enough sample obtained. Through an IRB amendment, I then decided to add another district to increase the number of participants completing the survey for both teachers and students. Initial contact with the district started early March, and the survey was distributed a few days later to qualifying participants. The survey was open for the new district for a total of five weeks. The weblink to

the survey was available for a total of 15 weeks since the beginning of the study. At the end of April, there were enough respondents to close the survey and begin the analysis.

For this study, I recruited 747 ML students and 192 mainstream teachers of ML students to participate. The sample size was determined based on Cochran's formula using a population size of 747 multilingual students, a margin of error of 5%, and a confidence level of 95% resulting in a sample size of 254 students. Similarly, the population size of 192 mainstream teachers resulted in a sample size of 129 teachers.

I undertook multiple efforts to recruit participants within both districts; however, the response rate from both students and teachers did not yield the required sample sizes. Due to a low response rate, I recalculated the sample size for students using the larger margin of error (+/-7%) and the same confidence interval of 95%. The new sample size for students included 154 participants. In my study, 229 students accessed the survey; however, only 154 participants completed the survey fully.

Similarly, I recalculated the sample size for the teacher participants with larger margin of error (+/-15%) and confidence interval of 80%, which required a minimum sample size of 17. For this study, a total of 29 teachers accessed the survey. However, after adjusting for missing responses, a total of 19 teachers were included in the final analysis. The new sample size for students is large enough to generalized to a larger population. In the case of teachers, I needed to use more significant caution in interpretation, as a margin of error is much higher and the confidence level lower.

The students and the teachers completed the data survey using desktop computers, their phones, or laptop computers. The survey consisted of initial demographic questions measuring participants' characteristics such as the students' race, years in America, home language, other

known languages, and grade point average The next part of the survey consisted of 61 CISSA questions broken into four parts mirroring the CR-S framework practices. The survey asked teachers and students to indicate the extent of their agreement with statements posed using a 5-point Likert scale. I coded responses to the CR-S worded questions as follows: 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree,* and 5 = *strongly agree*. The mean scores could range from 1.0 - 5.0. Higher mean scores reflect a more favorable attitude toward CR-S principles and strategies represented in the classroom (see Appendix A and B).

Both sets of participants were asked via the Qualtrics software at the end of the survey to participate in phase 2, which consisted of focus group interviews. Once both sets of participants finished their survey, I reached out to the participants who responded *"yes"* to the question that stated, "Do you want to take part in the second phase of the study, which will include participation in a small focus group where you will have the opportunity to elaborate on some of the questions included in the survey?" I held one semi-structured student focus group interview at each high school consisting of 3-5 learners. I also conducted one teacher focus group interview at each high school consisting of 2-3 teachers each via the Zoom platform to get qualitative data. This helped deepen and further explain what the quantitative discovered.

Demographic Characteristics of Participants

The survey required both sets of respondents to answer demographic information. This section describes the characteristics of the 154 learners and the 19 teachers' data surveyed between both schools, one in Nassau and the other in Suffolk County. Student participants provided their gender, ethnicity, how many years they have been a student in their school, if their school is in Nassau or Suffolk County, their home language, other languages they speak, and their current grade point average. The teacher participants provided their gender, ethnicity, how

many years they have been teaching in this school, their teaching certifications, any languages spoken other than English, and if their school is in Nassau or Suffolk County.

Table 2 provides a descriptive representation of both sets of participants based on their responses to some of the demographic questions. All participants are active learners on the roster and active teachers in their school district.

Table 2

Demographic Characteristics of MLs and Teacher Participants

Demographic Characteristics	Students (n = 155)		Teachers (n = 19)	
	n	%	*n*	%
Gender				
Female	109	70.3	11	61.1
Male	30	19.4	7	36.8
Nonbinary	5	3.2	-	-
Prefer not to say.	3	1.9	-	-
Missing	8	11	1	5.3
Ethnicity				
African American/Black	30	19.4	--	-
Hispanic/Latinx	100	64.5	2	10.5
Asian/Pacific Islander	2	1.3	-	-
White, non-Hispanic	4	2.6	14	73.7
Multiracial	8	5.2	1	5.6
Other	3	1.9	1	5.6
Home Language				
English				
English and Spanish	60	39	14	73.7
English and Italian	14	9.1	2	10.5
English, Portuguese, Spanish,	-	-	1	5.3
and French	-	-	1	5.3
Albanian				
Patwa (Jamaican Creole)	1	.6	-	-
Tagalog	1	.6	-	-
Spanish	1	.6	-	-
	68	44.2	-	-

Note. Numerical values represent the number of survey respondents.

When asked to self-identify, 73.7% (*n* = 14) of the teacher respondents identified as White. This data is representative of the teacher population in New York State, where 80% of all in-service teachers are White (NYSED Educator Diversity Report, 2019). The data also shows that over 61% (*n* = 11) of the teacher respondents are female.

When looking at the teacher demographics in more detail, 31.6% (*n* = 5) of the respondents have been working in the district for less than 10 years, 63.4% (*n* = 12) of the respondents have been working more than 10 years, and up to 30 years in the district, and 5.3% (*n* = 1) missing responses. In the demographics section, teachers also provide the teaching certificates they have obtained, which were 15.8% (*n* = 3) having Math 7-12, 15.8% (*n* = 3) having Social Studies 7-12, 10.5% (*n* = 2) having Special Education, 10.5% (*n* = 2) having both Math 7-12 and Special Education. Each of the following certificates had 5.3% (*n* = 1) responses: Business and School Administrator, Chemistry and Physics, Elementary, English and Literacy, Music 7-12, Social Studies and Special Education, Special Education and General Education 1-6, and Technology.

When looking at the student demographics in more detail, 90.8% (*n* = 140) of the respondents have been students in the district for less than 10 years, 6.2% (*n* = 5) have been in the district for more than 10 years and up to 14 years, and 5.8% (*n* = 9) missing responses. I also asked the learners to provide me with other languages that they speak besides their home language. The responses yielded 29.2% (*n* = 45) responding English, 20.1% (*n* = 31) responding English and Spanish, 12.3% (*n* = 19) responding none, 10.4% (*n* = 16) responding Spanish, 1.9% (*n* = 3) responding English, Spanish, and French, 1.3% (*n* = 2) responding English and French,

1.3% (*n* = 2) responding French, .6% (*n* = 1) responding English and American Sign Language (ASL), .6% (*n* = 1) responding Creole, .6% (*n* = 1) responding Creole and French, .6% (*n* = 1) responding Italian, .6% (*n* = 1) responding Korean, .6% (*n* = 1) responding French, Spanish, English, ASL, and Korean, .6% (*n* = 1) responding Spanish and French, .6% (*n* = 1) responding English Spanish, and Italian, and 18.2% (*n* = 28) did not respond. The final demographic questions the MLs responded to was about their current grade point average (GPA). There were 3.9% (*n* = 6) of the learners that responded as 100 or above, 40.9% (*n* = 63) responded between 99-90, 27.3% (*n* = 42) responded 89-80, 8.4% (*n* = 13) responded 79-70, 3.2% (*n* = 5) responded 69-60, 2.6% (*n* = 4) responded they did not know, and 13.6% (*n* = 21) did not respond to this question.

Data Analysis

This section contains data analysis and the summary of findings organized by the phase of data collection and guided by questions that apply to each phase. Phase 1 is analyzed first with quantitative findings based on the CISSA survey via the web-based platform Qualtrics. SPSS software was used to conduct the analysis and then the Intellectus software was conducted to confirm the findings and provide deeper analyses including write-ups and charts (see Appendix E and F). Data reflects responses to the survey from the ML (*n* = 155) and teacher participants (*n* = 19). Phase 2 followed with the findings from the qualitative data from the focus group interviews of both sets of participants, MLs (*n* = 8) and general education teachers (*n* = 5).

Quantitative Results

Research Question 1 - CR-S Perceptions Between Teachers and Multilingual Learners

1. Is there a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery?

Ho: There is no difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery.

Ha: There is a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery.

Part 1: Building Relationships/Welcoming and Affirming Environment by Participants

I grouped the analyses of the survey results into the four parts of the CISSA survey. The following reports the results from Part 1: Building Relationships/Welcoming and Affirming Environment, which grouped all the responses of the 18 questions. I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 1: Building Relationships/Welcoming and Affirming Environment (Part 1) significantly differed between the Student Responses and Teacher Responses categories of Participant.

Normality. I conducted Shapiro-Wilk tests to determine whether a normal distribution for each category of participants could produce for Part 1: Building Relationships/Welcoming and Affirming Environment normal (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 1 in the Student Responses category was not significant based on an alpha value of .05, $W = 0.99$, $p = .501$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 1 in the Student Responses category. The result of the Shapiro-Wilk test Part 1 in the Teacher Responses category was not significant based on an alpha value of .05, $W = 0.93$, $p = .228$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 1 in the Teacher Responses category. The Shapiro-Wilk test was not significant for either the Student Responses or Teacher Responses categories of Participant, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 1 was equal between the categories of Participant. The result of Levene's test for Part 1 was not significant based on an alpha value of .05, $F(1, 120) = 0.55$, $p = .460$. This result suggests it is possible that the variance of Part 1 is equal for each category of Participant, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples t-test was significant based on an alpha value of .05, $t(120) = -4.59$, $p < .001$, indicating the null hypothesis can be rejected. This finding suggests the mean of Part 1 was significantly different between the Student Responses and Teacher Responses categories of Participant. Table 3 presented the results. Figure 1 shows a bar plot of the means.

Table 3

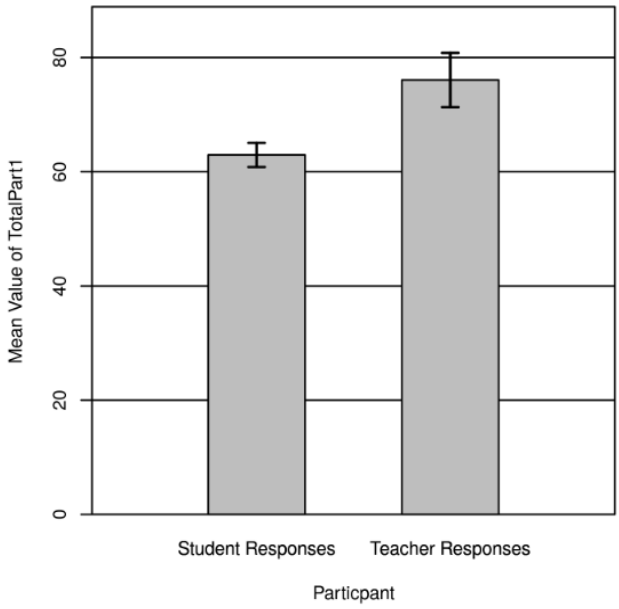
Two-Tailed Independent Samples t-Test for Part 1 by Participant

	Student Responses			Teacher Responses					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part1	62.94	11.07	105	76.06	10.00	17	-4.59	< .001	1.24

Note. N = 122. Degrees of Freedom for the *t*-statistic = 120. *d* represents Cohen's *d.*

Figure 1

Mean of Part 1 by Levels of Participant with 95.00% CI Error Bars



Part 2: High Expectation and Rigorous Instruction by Participants

The following reports the results from Part 2: High Expectation and Rigorous Instruction, which grouped all the responses of the 19 questions. I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 2: High Expectation and Rigorous Instruction (Part 2) significantly differed between the Student Responses and Teacher Responses categories of Participant.

Normality. I conducted Shapiro-Wilk tests to determine whether a normal distribution for each category of Participant could be produced for Part 2: High Expectation and Rigorous Instruction (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 2 in the Student Responses category was not significant based on an alpha value of .05, $W = 0.99$, $p = .678$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 2 in the Student Responses category. The result of the Shapiro-Wilk test Part 2 in the Teacher Responses category was not significant based on an alpha value of .05, $W = 0.95$, $p = .493$. This result suggests that a normal distribution cannot be ruled out as the underlying

distribution for Part 2 in the Teacher Responses category. The Shapiro-Wilk test was not significant for either the Student Responses or Teacher Responses categories of Participant, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 2 was equal between the categories of Participant. The result of Levene's test for Part 2 was not significant based on an alpha value of .05, $F(1, 89) = 0.02$, $p = .890$. This result suggests it is possible that the variance of Part 2 is equal for each category of Participant, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was not significant based on an alpha value of .05, $t(89) = -0.37$, $p = .712$, indicating the null hypothesis cannot be rejected. This finding suggests the mean of Part 2 was not significantly different between the Student Responses and Teacher Responses categories of Participant. Table 4 presents the results. Figure 2 presents a bar plot of the means.

Table 4

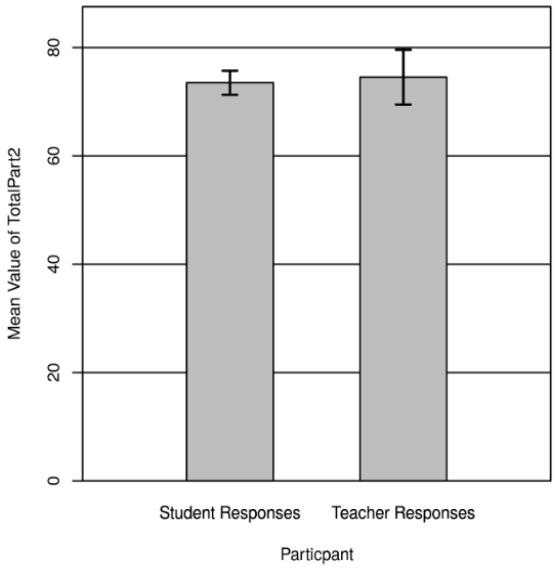
Two-Tailed Independent Samples t-Test for Part 2 by Participant

	Student Responses			Teacher Responses					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 2	73.50	9.87	76	74.53	9.99	15	-0.37	.712	0.10

Note. $N = 91$. Degrees of Freedom for the *t*-statistic = 89. *d* represents Cohen's *d.*

Figure 2

Mean of Part 2 by Levels of Participant with 95.00% CI Error Bars



Part 3: Inclusive Curriculum and Assessment

The following reports the results from Part 3: Inclusive Curriculum and Assessment, which grouped all the responses to the 17 questions. I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 3: Inclusive Curriculum and Assessment (Part 3) significantly differed between the Student Responses and Teacher Responses categories of Participant.

Normality. I conducted Shapiro-Wilk tests to determine whether a normal distribution for each category of Participant could produce Part 3 (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 3 in the Student Responses category was not significant based on an alpha value of .05, $W = 0.98$, $p = .627$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 3 in the Student Responses category. The result of the Shapiro-Wilk test Part 3 in the Teacher Responses category was not significant based on an alpha value of .05, $W = 0.95$, $p = .593$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 3 in the Teacher Responses category. The

Shapiro-Wilk test was not significant for either the Student Responses or Teacher Responses categories of Participant, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test was conducted to assess whether the variance of Part 3 was equal between the categories of Participant. The result of Levene's test for Part 3 was not significant based on an alpha value of .05, $F(1, 69) = 0.15$, $p = .699$. This result suggests it is possible that the variance of Part 3 is equal for each category of Participant, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was not significant based on an alpha value of .05, $t(69) = -1.77$, $p = .081$, indicating the null hypothesis cannot be rejected. This finding suggests the mean of Part 3 was not significantly different between the Student Responses and Teacher Responses categories of Participant. Table 5 presents the results. Figure 3 displays a bar plot of the means.

Table 5

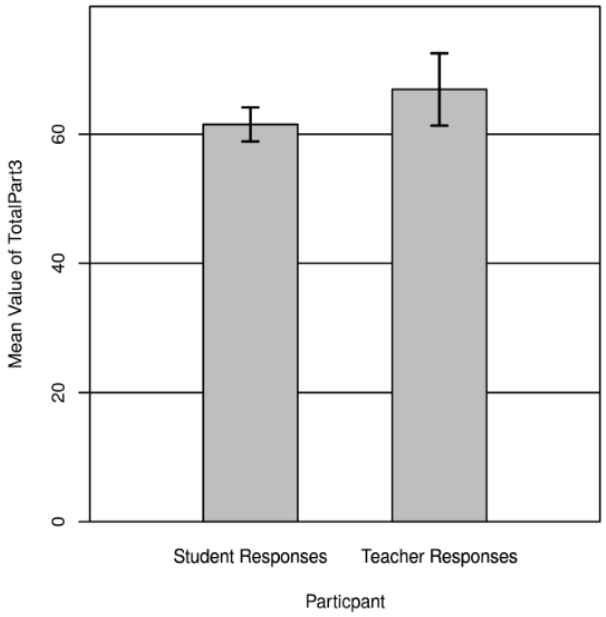
Two-Tailed Independent Samples t-Test for Part 3 by Participant

	Student Responses			Teacher Responses					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 3	61.51	10.15	57	66.93	10.69	14	-1.77	.081	0.52

Note. $N = 71$. Degrees of Freedom for the *t*-statistic = 69. *d* represents Cohen's *d.*

Figure 3

Mean of Part 3 by Levels of Participant with 95.00% CI Error Bars



Part 4: Ongoing Professional Learning

The following reports the results from Part 4: Ongoing Professional Learning, which grouped all the responses of the seven questions. I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 4: Ongoing Professional Learning (Part 4) significantly differed between the Student Responses and Teacher Responses categories of Participant.

Normality. I conducted Shapiro-Wilk tests to determine whether each category of Participant could produce a normal distribution of Part 4 (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 4 in the Student Responses category was not significant based on an alpha value of .05, $W = 0.97$, $p = .311$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 4 in the Student Responses category. The result of the Shapiro-Wilk test Part 4 in the Teacher Responses category was not significant based on an alpha value of .05, $W = 0.88$, $p = .054$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 4 in the Teacher Responses category. The

Shapiro-Wilk test was not significant for either the Student Responses or Teacher Responses categories of Participant, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 4 was equal between the categories of Participant. The result of Levene's test for Part 4 was not significant based on an alpha value of .05, $F(1, 65) = 0.64$, $p = .426$. This result suggests it is possible that the variance of Part 4 is equal for each category of Participant, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was significant based on an alpha value of .05, $t(65) = -2.44$, $p = .018$, indicating the null hypothesis can be rejected. This finding suggests the mean of Part 4 significantly differed between the Student Responses and Teacher Responses categories of Participant. Table 6 presents the results. Figure 4 displays a bar plot of the means.

Table 6

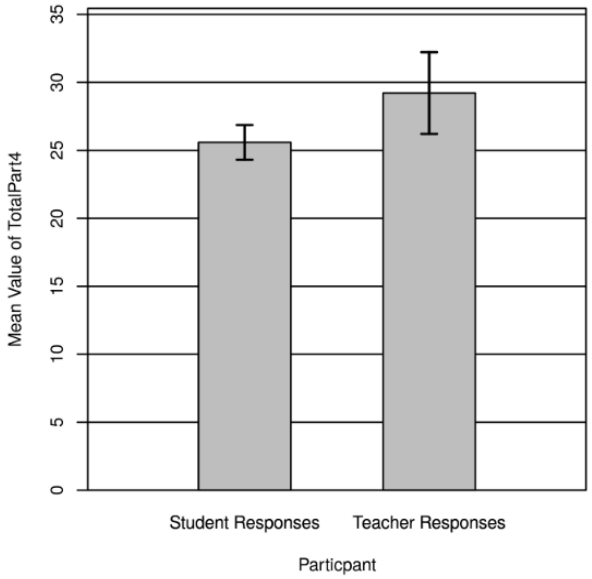
Two-Tailed Independent Samples t-Test for Part 4 by Participant

	Student Responses			Teacher Responses					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 4	25.58	4.74	53	29.21	5.74	14	-2.44	.018	0.69

Note. $N = 67$. Degrees of Freedom for the *t*-statistic = 65. *d* represents Cohen's *d.*

Figure 4

Mean of Part 4 by Levels of Participant with 95.00% CI Error Bars



For RQ1, the results show significant mean differences for Part 1 and Part 4 of the CR-S framework's core principles. This shows differences in perceptions between MLs and their teachers when it comes to building relationships, creating a welcoming and affirming environment, and ongoing professional learning. Part 3 and Part 2 yielded similar findings for MLs compared to their teachers.

Research Question 2 - CR-S Differences in Perceptions Between Teachers and Multilingual Learners

2. What differences exist between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom?

    Ho: There is no difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom.

Ha: There is a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom.

The following reports the results from conducting two-tailed independent samples *t*-tests for each question in each of the four parts to examine which question's means significantly differed between the MLs and teachers. I conducted a two-tailed independent samples *t*-test to examine which of the 18 response means of Part 1: Building Relationships/Welcoming and Affirming Environment (Part 1) significantly differed between the Student Responses and Teacher Responses categories of Participant. The result of the two-tailed independent samples *t*-test displayed 12 out of the 18 questions yielded significant differences between the Student Responses and Teacher Responses categories of Participant. Table 7 presents the results .

Table 7

Two-Tailed Independent Samples t-Test for Part 1 by Participant

Variable	Student Responses			Teacher Responses			*t*	*p*	*d*
	M	*SD*	*n*	*M*	*SD*	*n*			
I.1.My teachers call me by my name and use correct pronunciation.	4.29*	.887	112	4.76*	.437	17	-3.478	.001*	0.84
I.2 My teachers are interested in my life and experiences.	3.35*	.937	112	4.88*	.332	17	-12.818	.000*	0.88
I.3 My teachers ask me to share my stories about my life.	2.82*	.997	112	4.76*	.437	17	-13.697	.000*	0.94
I.4 My teachers respect me.	4.05*	.837	112	4.88*	.332	17	-7.344	.000*	0.79
I.5 My teachers make me feel like I am part of the class.	3.98	.859	112	4.29	.985	17	-1.368	.174	0.87
I.6 My teachers help me feel safe and anxiety-free in my classrooms.	3.38*	1.121	111	4.47*	.624	17	-5.903	.000*	1.07

I.7 Students respect each other and value the ideas and opinions of their classmates.	3.15*	1.089	111	4.29*	.772	17	-4.157	.000*	1.05
I.8 My teachers help me feel comfortable and ready to participate in my classes.	3.72*	.942	112	4.29*	.985	17	-2.316	.022*	0.94
I.9 My teachers value my culture and speak about my culture in positive ways.	3.89*	.922	110	4.41*	.870	17	-2.183	.031*	0.91
I.10 My teachers encourage my classmates and I to work together and complete work.	4.02	.763	111	3.82	1.131	17	.685	.502	0.81
I.11 My teachers communicate with my family regularly.	2.76*	1.354	110	3.94*	1.029	17	-3.431	.001*	1.31
I.12 My teachers connect with my family during school and community events.	2.91	1.310	110	3.24	1.200	17	-.965	.336	1.29
I.13My teachers communicate with my family in positive ways and have built friendly relationships with them.	2.98*	1.173	110	3.82*	1.334	17	-2.703	.008*	1.19
I.14 My teachers check in with me and make sure I am ok as a person. Not just my academics.	3.10*	1.362	112	4.12*	1.054	17	-2.951	.004*	1.32
I.15 I see my reflection of my culture in the classroom, and it makes me feel good.	3.22*	1.145	112	4.29*	1.160	17	-3.588	.000*	1.14
I.16 My teachers encourage me to take responsibility for my learning and my classroom.	3.96	.852	111	4.18	.951	17	-.943	.347	0.86
I.17 My teachers encourage me to respectfully engage in conversations with my classmates even if we do not have the same ideas.	3.75	1.013	111	3.71	1.160	17	.156	.877	1.03
I.18 My teachers encourage me to build friendships and learning partnerships with my classmates.	3.75	1.018	112	3.88	.993	17	-.501	.617	1.01

Note. t represents *t*-statistic, *p* represents significance level, *d* represents Cohen's *d.*

I conducted a two-tailed independent samples *t*-test to examine which of the 19 response means of Part 2: High Expectations and Rigorous Instruction (Part 2) significantly differed between the Student Responses and Teacher Responses categories of Participant. The result of the two-tailed independent samples *t*-test displayed that 5 out of the 19 questions yielded significant differences between the Student Responses and Teacher Responses categories of Participant. The results are presented in Table 8.

Table 8

Two-Tailed Independent Samples t-Test for Part 2 by Participant

Variable	Student Responses			Teacher Responses					
	M	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
II.1 I am learning the same information that my classmates are learning.	4.17	.771	81	4.27	1.033	15	-.409	.683	0.81
II.2 I feel my teachers challenge me every day to be successful and feel positive about learning in classes.	3.84*	.934	80	4.40*	.737	15	-2.204	.030*	0.90
II.3 My teachers teach me difficult things that makes me think.	4.06	.946	80	4.53	.640	15	-1.846	.068	0.90
II.4 My teachers give me time to understand what I am learning and discuss it with my classmates or write about it.	3.61	.907	80	3.33	1.397	15	.745	.467	0.99
II.5 I am able to learn in many ways including how I learn best.	3.69*	.908	80	4.33*	.816	15	-2.564	.012*	0.89

II.6 I understand and visualize what success means to me in my classes.	3.76	.923	79	3.80	1.014	15	-.153	.878	0.93
II.7 I use strategies my teachers teach me to navigate my learning and success.	3.94	.985	80	4.00	1.069	15	-.223	.824	0.99
II.8 My teachers help me feel comfortable taking risks when I am learning and make sure I am not afraid to try new things.	3.51	.955	80	3.67	1.234	15	-.547	.586	1.00
II.9 My teachers encourage me to try more than once to accomplish a goal/ task if I do not accomplish it the first time I try.	3.96	.823	79	4.13	.915	15	.513	.470	0.83
II.10 My teachers want me to learn from my mistakes.	4.15	.713	80	4.00	.926	15	.712	.479	0.74
II.11My teachers want me to use critical thinking skills when engaging in learning.	4.18	.823	80	4.00	.845	15	.752	.454	0.82
II.12 My classmates and I empower one another to engage in learning.	3.34	1.153	79	3.53	.915	15	-.607	.545	1.12
II.13 My classmates and I discuss our viewpoints and the viewpoints of others.	3.53	1.021	77	3.80	1.265	15	-.892	.375	1.06
II.14 My teachers want me to feel good about myself.	3.96	.802	77	3.67	.724	15	1.320	.190	0.79
II.15 My teachers encourage my classmates and I to respect each other and	4.08	.694	79	3.93	.961	15	.548	.591	0.74

value each other's ideas and opinions.									
II.16 My teachers want my classmates and I to collaborate and hold each other accountable for doing good in class.	3.75*	.884	79	3.20*	1.082	15	.195	.037*	0.91
II.17 My teachers encourage me to work hard and push myself even if I am having a hard time.	4.08*	.717	78	3.60*	.910	15	2.257	.026*	0.75
II.18 My teachers help me feel proud about my work and want me to focus on continuous improvement.	3.86	.971	79	3.80	1.014	15	.221	.826	0.97
II.19 I receive detailed feedback from my teachers with suggestions about how I can improve.	3.65*	1.121	79	4.53*	.640	15	-2.967	.004*	1.06

Note. t represents *t*-statistic, *p* represents significance level, *d* represents Cohen's *d.*

I conducted a two-tailed independent samples *t*-test to examine which of the 17 response means of Part 3: Inclusive Curriculum and Assessment (Part 3) significantly differed between the Student Responses and Teacher Responses categories of Participant. The result of the two-tailed independent samples *t*-test showed that 5 out of the 17 questions yielded significant differences between the Student Responses and Teacher Responses categories of Participant. I presented the results in Table 9.

Table 9

Two-Tailed Independent Samples t-Test for Part 3 by Participant

	Student Responses			Teacher Responses					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*

III.1 I feel my teachers challenge me every day to be successful and feel positive about learning in classes.	3.77*	.851	60	4.57*	.514	14	-3.386	.001*	0.80
III.2 My teachers allow me to use culture and linguistic ability to navigate learning.	3.58	1.169	60	4.00	.961	14	-1.238	.220	1.13
III.3 My teachers encourage me to share my experiences and stories regularly in my classes.	3.11*	1.112	61	4.00*	1.240	14	-2.630	.010*	1.13
III.4 The books and materials reflect my culture and background.	2.59*	1.101	61	3.29*	1.139	14	-2.118	.038*	1.10
II.5 I see a reflection of myself in my classroom.	2.92*	1.201	61	3.64*	1.336	14	-1.994	.059*	1.22
III.6 The materials my teachers use reflect different perspectives and cultures.	3.47	1.016	60	3.43	1.284	14	.120	.905	1.07
III.7 My teachers encourage me to use my native language in the classroom to help me learn.	3.39	1.464	61	3.43	1.016	14	-.085	.932	1.39
III.8 My teachers allow me to work with my classmates to help me learn.	3.89	.755	61	3.86	.949	14	.120	.905	0.79
III.9 My teachers encourage me to care about my learning.	4.21	.819	61	3.79	.893	14	1.733	.087	0.83
III.10 My teachers give us projects and many other ways to learn.	3.98	.806	61	3.86	.949	14	.512	.610	0.83
III.11My teachers help me learn English and	4.19	1.090	59	4.21	.802	14	-.090	.929	1.04

feel like my learning is meaningful.									
III.12 My teachers encourage me to set learning goals.	3.90	.730	60	4.07	.829	14	-.772	.443	0.74
III.13 My teachers use tests and assessments that reflect my culture and background.	3.05*	1.431	61	4.21*	1.051	14	-2.868	.005*	1.37
III.14 I demonstrate learning through a variety of assessments.	3.97	.999	61	4.21	1.051	14	-.826	.411	1.00
III.15 My teacher uses my tests and assessments to help me learn and make sense of my mistakes.	3.90	.907	61	4.29	.825	14	-1.451	.151	0.89
III.16 My teachers encourage me to assess my learning based on my culture and background.	3.88	1.027	60	4.43	.756	14	-1.868	.066	0.98
III.17 I participate in learning outside my classrooms.	3.41	1.216	61	3.64	1.393	14	-.629	.531	1.24

Note. t represents *t*-statistic, *p* represents significance level, *d* represents Cohen's *d.*

I conducted a two-tailed independent samples *t*-test was to examine which of the 7 response means of Part 4: Ongoing Professional Learning (Part 4) significantly differed between the Student Responses and Teacher Responses categories of Participant. The result of the two-tailed independent samples *t*-test displayed that 2 out of the 7 questions yielded significant differences between the Student Responses and Teacher Responses categories of Participant. Table 10 presents the results.

Table 10

Two-Tailed Independent Samples t-Test for Part 4 by Participant

Variable	Student Responses			Teacher Responses					
	M	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
IV.1 My teachers encourage me to learn new tools and strategies to help me learn.	3.80	.833	54	4.21	.975	14	-1.616	.111	0.86
IV.2 My teachers try new ideas in class.	3.89	.839	54	3.86	1.117	14	.116	.908	0.91
IV.3 My teachers work together to make learning better.	3.42*	.949	53	4.14*	1.027	14	-2.509	.015*	0.96
IV.4 The building principal and assistant principal support my teachers and help them in the classroom.	3.57	1.169	53	3.93	1.385	14	-.993	.324	1.21
IV.5 My teachers ask us how we think they are teaching and we talk about it.	3.30*	1.295	53	4.50*	.519	14	-5.313	.000*	1.18
IV.6 My teachers challenge biases in my class and school.	3.70	1.137	53	4.29	1.267	14	-1.680	.098	1.16
IV.7 My teachers encourage my classmates and I to support each other and accept our differences.	3.96	.678	53	4.29	1.069	14	-1.394	.168	0.77

Note. t represents *t*-statistic, *p* represents significance level, *d* represents Cohen's *d.*

In summary, each of the above *t*-test findings yielded results that informed research question 2 of the study to precisely identify which responses had mean differences in the perceptions between the students and the teachers. Overall, Part 1 displayed 12 out of the 18 questions with mean differences, Part 2 displayed 5 out of the 19 questions with mean differences, Part 3 displayed 5 out of the 17 questions with mean differences, and Part 4

displayed 2 out of the 7 questions with mean differences.

Research Question 3 – Teachers' and MLs' Ratings of CR-S Strategies by gender and ethnicity

a) Is there a significant difference in ML student' ratings of CR-S strategies in the general education classroom by gender?

   Ho: There is no difference in ML student' ratings of CR-S strategies in the general education classroom by gender.

   Ha: There is a difference in ML student' ratings of CR-S strategies in the general education classroom by gender.

b) Is there a significant difference in ML student' ratings of CR-S strategies in general education classroom by ethnicity?

   Ho: There is no difference in ML student' ratings of CR-S strategies in general education classroom by ethnicity.

   Ha: There is a difference in ML student' ratings of CR-S strategies in general education classroom by ethnicity.

c) Is there a significant difference in teachers' ratings of CR-S strategies by gender?

   Ho: There is no difference in teachers' ratings of CR-S strategies by gender.

   Ha: There is a difference in teachers' ratings of CR-S strategies by gender.

d) Is there a significant difference in teachers' ratings of CR-S strategies by ethnicity?

   Ho: There is no difference in teachers' ratings of CR-S strategies by ethnicity.

   Ha: There is a difference in teachers' ratings of CR-S strategies by ethnicity.

Student Part 1: Building Relationships/Welcoming and Affirming Environment by Gender

3a. Is there a significant difference in ML student' ratings of CR-S strategies in the general education classroom by gender?

Ho: There is no difference in ML student' ratings of CR-S strategies in the general education classroom by gender.

Ha: There is a difference in ML student' ratings of CR-S strategies in the general education classroom by gender.

I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part1: Building Relationships/Welcoming and Affirming Environment (Part 1) significantly differed between the Male and Female categories of Gender.

Normality. I conducted Shapiro-Wilk tests to determine whether Part 1 could have been produced by a normal distribution for each category of Gender (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 1 in the Male category was not significant based on an alpha value of .05, $W = 0.98$, $p = .898$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 1 in the Male category. The result of the Shapiro-Wilk test Part 1 in the Female category was not significant based on an alpha value of .05, $W = 0.98$, $p = .419$. This result suggests a normal distribution cannot be ruled out as the underlying distribution for Part 1 in the Female category. The Shapiro-Wilk test was not significant for either the Male or Female categories of Gender, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 1 was equal between the categories of Gender. The result of Levene's test for Part 1 was not significant based on an alpha value of .05, $F(1, 101) = 1.35$, $p = .249$. This result suggests it is possible that the variance of Part 1 is equal for each category of Gender, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was not significant based on an alpha value of .05, $t(101) = 0.06$, $p = .953$, indicating the null hypothesis cannot be rejected. This

finding suggests the mean of Part 1 was not significantly different between the Male and Female categories of Gender. Table 11 presents the results. Figure 5 shows a bar plot of the means.

Table 11

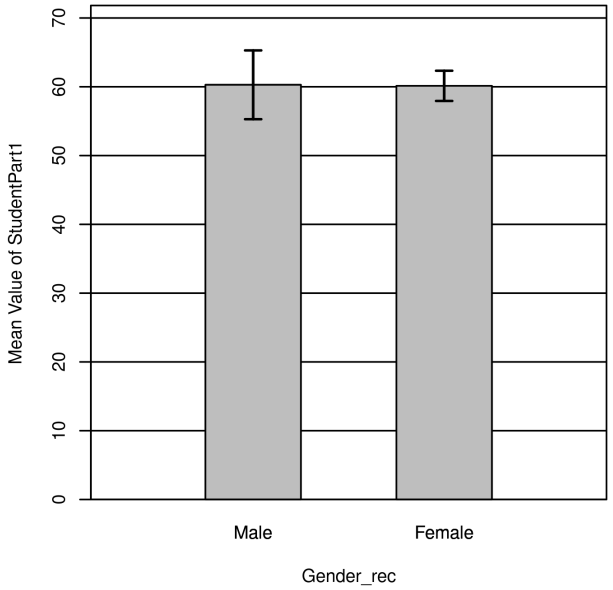
Two-Tailed Independent Samples t-Test for Part 1 by Gender

	Male			Female					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 1	60.29	11.69	21	60.13	10.15	82	0.06	.953	0.01

Note. $N = 103$. Degrees of Freedom for the *t*-statistic = 101. *d* represents Cohen's *d*.

Figure 5

Mean of Part 1 by Levels of Gender with 95.00% CI Error Bars



Student Part 2: High Expectations and Rigorous Instruction by Gender

I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 2: High Expectations and Rigorous Instruction (Part 2) significantly differed between the Male and Female categories of Gender.

Normality. I conducted Shapiro-Wilk tests to determine whether Part 2 could have been produced by a normal distribution for each category of Gender (Razali & Wah, 2011). The result

of the Shapiro-Wilk test for Part 2 in the Male category was not significant based on an alpha value of .05, $W = 0.94$, $p = .334$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 2 in the Male category. The result of the Shapiro-Wilk test Part 2 in the Female category was not significant based on an alpha value of .05, $W = 0.97$, $p = .141$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 2 in the Female category. The Shapiro-Wilk test was not significant for either the Male or Female categories of Gender, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 2 was equal between the categories of Gender. The result of Levene's test for Part 2 was not significant based on an alpha value of .05, $F(1, 73) = 0.68$, $p = .413$. This result suggests it is possible that the variance of Part 2 is equal for each category of Gender, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was not significant based on an alpha value of .05, $t(73) = 0.15$, $p = .880$, indicating the null hypothesis cannot be rejected. This finding suggests the mean of Part 2 was not significantly different between the Male and Female categories of Gender. Table 12 displays the results. Figure 6 shows a bar plot of the means

Table 12

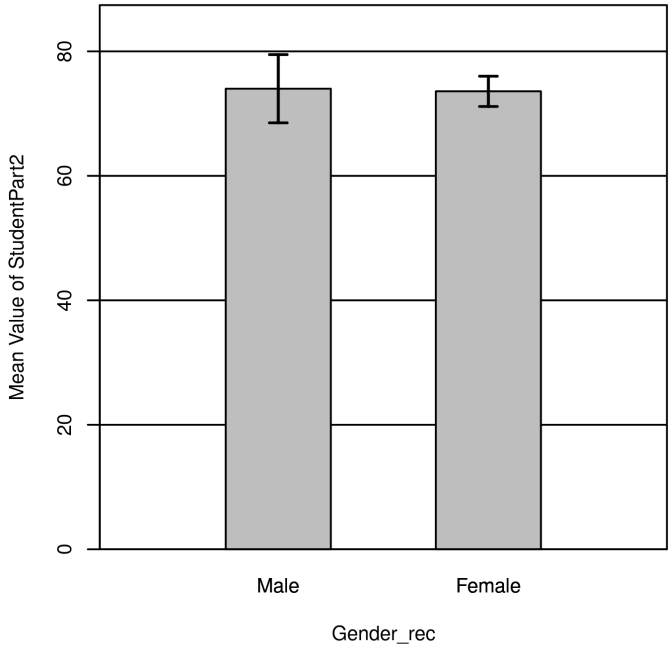
Two-Tailed Independent Samples t-Test for Part 2 by Gender

	Male			Female					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 2	74.00	11.19	16	73.58	9.54	59	0.15	.880	0.04

Note. N = 75. Degrees of Freedom for the *t*-statistic = 73. *d* represents Cohen's *d.*

Figure 6

Mean of Part 2 by Levels of Gender with 95.00% CI Error Bars



Student Part 3: Inclusive Curriculum and Assessment by Gender

I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 3: Inclusive Curriculum and Assessment (Part 3) significantly differed between the male and female categories of gender.

Normality. I conducted Shapiro-Wilk tests to determine whether Part 3 could have been produced by a normal distribution for each category of Gender (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 3 in the Male category was not significant based on an alpha value of .05, $W = 0.90$, $p = .169$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 3 in the Male category. The result of the Shapiro-Wilk test Part 3 in the Female category was not significant based on an alpha value of .05, $W = 0.95$, $p = .067$. This result suggests a normal distribution cannot be ruled out as the underlying distribution for Part 3 in the Female category. The Shapiro-Wilk test was not significant for either the Male or Female categories of Gender, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 3 was equal between the categories of Gender. The result of Levene's test for Part 3 was not significant based on an alpha value of .05, $F(1, 55) = 0.00$, $p = .966$. This result suggests it is possible the variance of Part 3 is equal for each category of Gender, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was significant based on an alpha value of .05, $t(55) = -2.06$, $p = .044$, indicating the null hypothesis can be rejected. This finding suggests the mean of Part 3 was significantly different between the Male and Female categories of Gender. Table 13 displays the results. Figure 7 shows a bar plot of the means.

Table 13

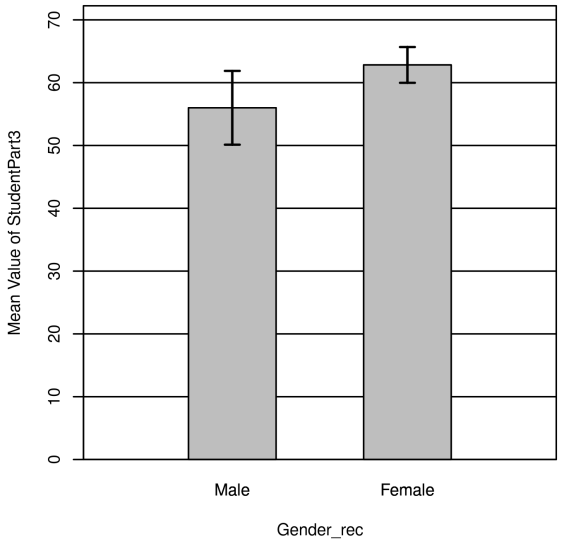
Two-Tailed Independent Samples t-Test for Part 3 by Gender

	Male			Female					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 3	56.00	9.94	11	62.83	9.86	46	-2.06	.044	0.69

Note. N = 57. Degrees of Freedom for the *t*-statistic = 55. *d* represents Cohen's *d*.

Figure 7

Mean of Part 3 by Levels of Gender with 95.00% CI Error Bars



Student Part 4: Ongoing Professional Learning by Gender

I conducted a two-tailed independent samples *t*-test to examine whether the mean of Part 4: Ongoing Professional Learning (Part 4) significantly differed between the Male and Female categories of Gender.

Normality. I conducted Shapiro-Wilk tests to determine whether Part 4 could have been produced by a normal distribution for each category of Gender (Razali & Wah, 2011). The result of the Shapiro-Wilk test for Part 4 in the Male category was not significant based on an alpha value of .05, $W = 0.95$, $p = .618$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 4 in the Male category. The result of the Shapiro-Wilk test Part 4 in the Female category was not significant based on an alpha value of .05, $W = 0.95$, $p = .071$. This result suggests that a normal distribution cannot be ruled out as the underlying distribution for Part 4 in the Female category. The Shapiro-Wilk test was not significant for either the Male or Female categories of Gender, indicating the normality assumption is met.

Homogeneity of Variance. I conducted Levene's test to assess whether the variance of Part 4 was equal between the categories of Gender. The result of Levene's test for Part 4 was not significant based on an alpha value of .05, $F(1, 51) = 1.66$, $p = .204$. This result suggests it is possible that the variance of Part 4 is equal for each category of Gender, indicating the assumption of homogeneity of variance was met.

The result of the two-tailed independent samples *t*-test was not significant based on an alpha value of .05, $t(51) = -1.40$, $p = .167$, indicating the null hypothesis cannot be rejected. This finding suggests the mean of Part 4 was not significantly different between the Male and Female categories of Gender. Table 14 displays the results. Figure 8 shows a bar plot of the means.

Table 14

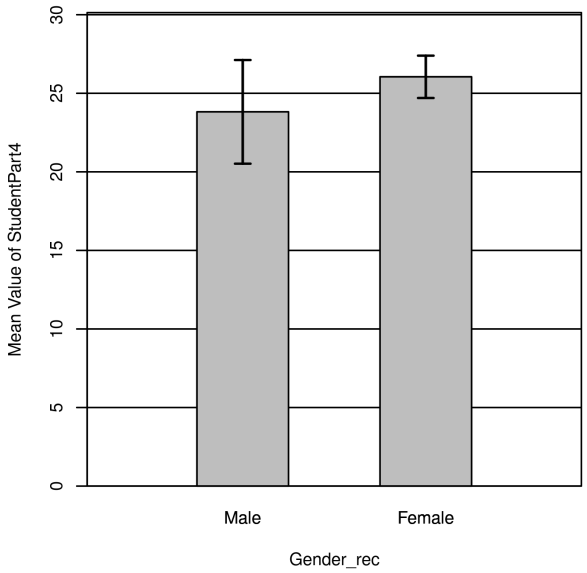
Two-Tailed Independent Samples t-Test for Part 4 by Gender

	Male			Female					
Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	*t*	*p*	*d*
Part 4	23.82	5.58	11	26.05	4.46	42	-1.40	.167	0.44

Note. N = 53. Degrees of Freedom for the *t*-statistic = 51. *d* represents Cohen's *d.*

Figure 8

Mean of Part 4 by Levels of Gender with 95.00% CI Error Bars



For Research Question 3a, which examined differences between perceptions of the CR-S framework dependent on Gender, results indicated that Females displayed a higher mean value for Part 3 than Males. This data reveals that female students reported higher levels of strategies and techniques they felt teachers used in making assessments and lessons meaningful while also making sure the students feel encouraged in the classroom and that it connected to their cultural background.

Student Part 1: Building Relationships/Welcoming and Affirming Environment by Race/Ethnicity

3b. Is there a significant difference in ML students' ratings of CR-S strategies in general education classroom by ethnicity?

Ho: There is no difference in ML students' ratings of CR-S strategies in general education classroom by ethnicity.

Ha: There is a difference in ML students' ratings of CR-S strategies in general education classroom by ethnicity.

I conducted an analysis of variance (ANOVA) to determine whether there were significant differences in Part 1: Building Relationships/Welcoming and Affirming Environment (Part 1) by Race/Ethnicity.

The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(5, 99) = 1.94$, $p = .095$, indicating the differences in Part 1 among the levels of Race/Ethnicity were all similar (Table 15). The main effect, Race/Ethnicity was not significant, $F(5, 99) = 1.94$, $p = .095$, indicating no significant differences of Part 1 by Race/Ethnicity levels. Table 16 shows the means and standard deviations.

Table 15

Analysis of Variance Table for Part 1 *by Race/Ethnicity*

Term	*SS*	*df*	*F*	*p*	ηp2
Race/Ethnicity	992.03	5	1.94	.095	0.09
Residuals	10,136.60	99			

Table 16

Mean, Standard Deviation, and Sample Size for Part 1 *by Race/Ethnicity*

Combination	*M*	*SD*	*n*
African American/Black	57.45	9.65	20
Hispanic	61.31	9.81	75
Asian/Pacific Islander	45.00	-	1
White, non-Hispanic	56.00	24.04	2
Multiracial	63.40	12.12	5
Other	45.50	9.19	2

Note. A '-' indicates the sample size was too small for the statistic to be calculated.

There were no significant effects in the model. As a result, post hoc comparisons were not conducted.

Student Part 2: High Expectations and Rigorous Instruction by Race/Ethnicity

I conducted an analysis of variance (ANOVA) to determine whether there were significant differences in Part 2: High Expectations and Rigorous Instruction (Part 2) by Race/Ethnicity.

The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(4, 71) = 1.03$, $p = .398$, indicating the differences in Part 2 among the levels of Race/Ethnicity were all similar (Table 17). The main effect, Race/Ethnicity was not significant, $F(4, 71) = 1.03$, $p = .398$, indicating no significant differences of Part 2 by Race/Ethnicity levels. Table 18 displays the means and standard deviations

Table 17

Analysis of Variance Table for Part 2 *by Race/Ethnicity*

Term	*SS*	*df*	*F*	*p*	$\eta_p 2$
Race/Ethnicity	400.93	4	1.03	.398	0.05
Residuals	6,912.07	71			

Table 18

Mean, Standard Deviation, and Sample Size for Part 2 by Race/Ethnicity

Combination	*M*	*SD*	*n*
African American/Black	74.54	7.56	13
Hispanic	72.95	10.05	57
Asian/Pacific Islander	65.00	-	1
White, non-Hispanic	90.00	-	1

Multiracial	76.00	13.78	4

Note. A '-' indicates the sample size was too small for the statistic to be calculated.

There were no significant effects in the model. As a result, post hoc comparisons were not conducted.

Student Part 3: Inclusive Curriculum and Assessment by Race/Ethnicity

I conducted an analysis of variance (ANOVA) to determine whether there were significant differences in Part 3: Inclusive Curriculum and Assessment (Part 3) by Race/Ethnicity.

The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(3, 53) = 0.69$, $p = .561$, indicating the differences in Part 3 among the levels of Race/Ethnicity were all similar (Table 19). The main effect, Race/Ethnicity was not significant, $F(3, 53) = 0.69$, $p = .561$, indicating there were no significant differences of Part 3 by Race/Ethnicity levels. Table 20 shows the means and standard deviations.

Table 19

Analysis of Variance Table for Part 3 by Race/Ethnicity

Term	*SS*	*df*	*F*	*p*	ηp^2
Race/Ethnicity	217.80	3	0.69	.561	0.04
Residuals	5,556.44	53			

Table 20

Mean, Standard Deviation, and Sample Size for StudentPart3 by Race/Ethnicity

Combination	*M*	*SD*	*n*
African American/Black	64.00	8.91	8
Hispanic	60.78	10.20	45
Asian/Pacific Islander	56.00	-	1
Multiracial	67.67	14.47	3

Note. A '-' indicates the sample size was too small for the statistic to be calculated.

There were no significant effects in the model. As a result, post hoc comparisons were not conducted.

Student Part 4: Ongoing Professional Learning by Race/Ethnicity

An analysis of variance (ANOVA) was conducted to determine whether there were significant differences in Part 4: Ongoing Professional Learning (Part 4) by Race/Ethnicity.

The ANOVA was examined based on an alpha value of .05. The results of the ANOVA were not significant, $F(3, 49) = 0.60$, $p = .617$, indicating the differences in Part 4 among the levels of Race/Ethnicity were all similar (Table 21). The main effect, Race/Ethnicity was not significant, $F(3, 49) = 0.60$, $p = .617$, indicating there were no significant differences of Part 4 by Race/Ethnicity levels. The means and standard deviations are presented in Table 22.

Table 21

Analysis of Variance Table for Part 4 by Race/Ethnicity

Term	*SS*	*df*	*F*	*p*	ηp2
Race/Ethnicity	41.49	3	0.60	.617	0.04
Residuals	1,127.38	49			

Table 22

Mean, Standard Deviation, and Sample Size for StudentPart4 by Race/Ethnicity

Combination	*M*	*SD*	*n*
African American/Black	24.33	4.46	6
Hispanic	25.68	4.86	44
Asian/Pacific Islander	31.00	-	1
Multiracial	24.50	3.54	2

Note. A '-' indicates the sample size was too small for the statistic to be calculated.

There were no significant effects in the model. As a result, posthoc comparisons were not conducted.

To summarize, research question 3b aimed to investigate differences in perceptions of the CR-S framework based on students' ethnicity. Ultimately, the results showed no difference in student responses across all four parts of the survey, regardless of ethnicity.

Teacher Part 1: Building Relationships/Welcoming and Affirming Environment by Gender

3c. Is there a significant difference in teachers' ratings of CR-S strategies by gender?

Ho: There is no difference in teachers' ratings of CR-S strategies by gender.

Ha: There is a difference in teachers' ratings of CR-S strategies by gender.

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 1: Building Relationships/Welcoming and Affirming Environment (Part 1) between the levels of Gender. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were seven observations in group Male and 10 observations in group Female.

The result of the two-tailed Mann-Whitney U test was not significant based on an alpha value of .05, $U = 20.5$, $z = -1.42$, $p = .157$. The mean rank for group Male was 6.93, and the mean rank for group Female was 10.45. This suggests that the distribution of Part 1 for group Male ($Mdn = 74.00$) was not significantly different from the distribution of Part 1 for the Female ($Mdn = 79.50$) category. Table 23 presents the result of the two-tailed Mann-Whitney U test. Figure 9 presents a boxplot of the ranks of Part 1 by Gender.

Table 23

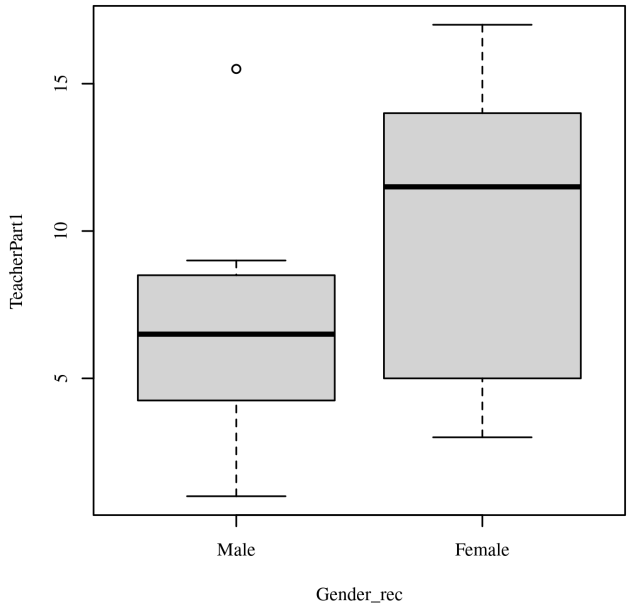
Two-Tailed Mann-Whitney Test for Part 1 by Gender

Male	Female

Variable	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 1	6.93	7	10.45	10	20.50	-1.42	.157

Figure 9

Ranks of Part 1 by Gender



Teacher Part 2: High Expectations and Rigorous Instruction by Gender

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 2: High Expectations and Rigorous Instruction (Part 2) between the levels of Gender. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were five observations in group Male and 10 observations in group Female.

The result of the two-tailed Mann-Whitney U test was not significant based on an alpha value of .05, $U = 27$, $z = -0.25$, $p = .806$. The mean rank for group Male was 8.40, and the mean

rank for group Female was 7.80. This suggests that the distribution of Part 2 for group Male (*Mdn* = 76.00) was not significantly different from the distribution of Part 2 for the Female (*Mdn* = 75.50) category. Table 24 presents the result of the two-tailed Mann-Whitney U test. Figure 10 presents a boxplot of the ranks of Part 2 by Gender.

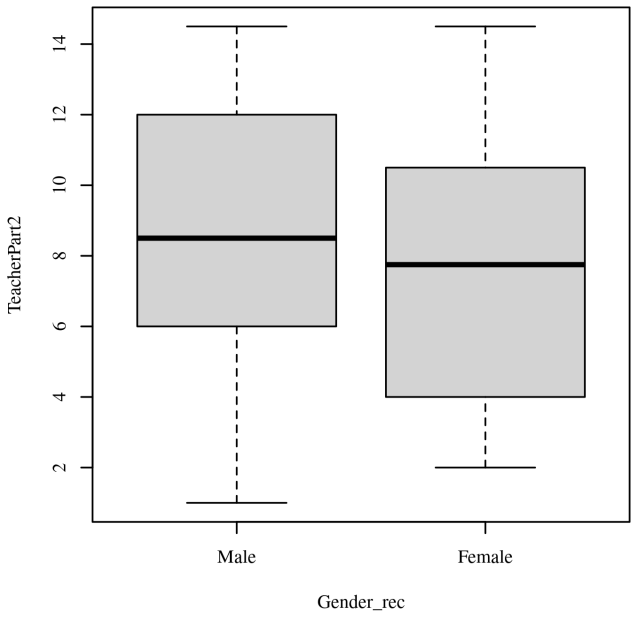
Table 24

Two-Tailed Mann-Whitney Test for Part 2 by Gender

	Male		Female				
Variable	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 2	8.40	5	7.80	10	27.00	-0.25	.806

Figure 10

Ranks of Part 2 by Gender



Teacher Part 3: Inclusive Curriculum and Assessment by Gender

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 3: Inclusive Curriculum and Assessment (Part 3**)**

between the levels of Gender. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were five observations in group Male and nine observations in group Female.

The result of the two-tailed Mann-Whitney U test was not significant based on an alpha value of .05, $U = 20$, $z = -0.33$, $p = .738$. The mean rank for group Male was 7.00, and the mean rank for group Female was 7.78. This suggests that the distribution of Part 3 for group Male (*Mdn* = 67.00) was not significantly different from the distribution of Part 3 for the Female (*Mdn* = 69.00) category. Table 25 presents the result of the two-tailed Mann-Whitney U test. Figure 11 presents a boxplot of the ranks of Part 3 by Gender.

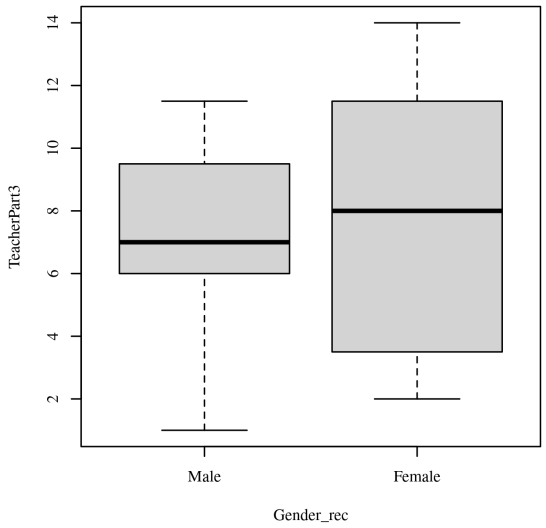
Table 25

Two-Tailed Mann-Whitney Test for Part 3 by Gender

	Male		Female				
Variable	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 3	7.00	5	7.78	9	20.00	-0.33	.738

Figure 11

Ranks of Part 3 by Gender



Teacher Part 4: Ongoing Professional Learning by Gender

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 4: Ongoing Professional Learning (Part 4) between the levels of Gender. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were five observations in group Male and nine observations in group Female.

The result of the two-tailed Mann-Whitney U test was not significant based on an alpha value of .05, $U = 13$, $z = -1.28$, $p = .202$. The mean rank for group Male was 5.60 and the mean rank for group Female was 8.56. This suggests that the distribution of Part 4 for group Male (*Mdn* = 36.00) was not significantly different from the distribution of Part 4 for the Female (*Mdn* = 41.00) category. Table 26 presents the result of the two-tailed Mann-Whitney U test. Figure 12 presents a boxplot of the ranks of Part 4 by Gender.

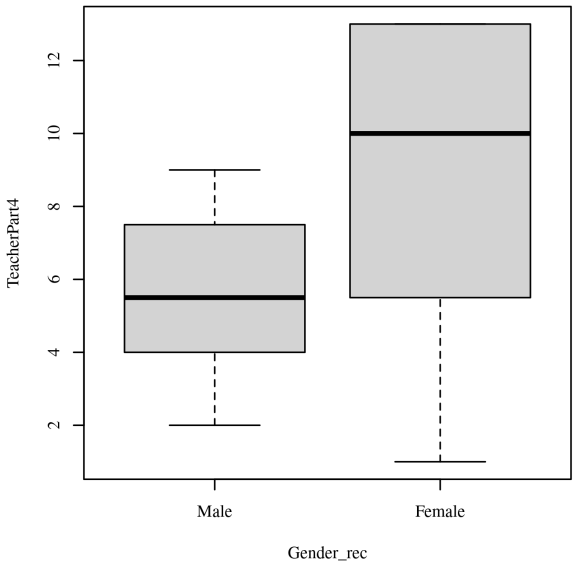
Table 26

Two-Tailed Mann-Whitney Test for Part 4 by Gender

	Male		Female				
Variable	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 4	5.60	5	8.56	9	13.00	-1.28	.202

Figure 12

Ranks of Part 4 by Gender



To summarize, question 3c examined what male and female teachers thought of the CR-S framework. The results revealed no differences between genders across the four parts of the survey.

Teacher Part 1: Building Relationships/Welcoming and Affirming Environment by Race/Ethnicity

3d. Is there a significant difference in teachers' ratings of CR-S strategies by ethnicity?

Ho: There is no difference in teachers' ratings of CR-S strategies by ethnicity.

Ha: There is a difference in teachers' ratings of CR-S strategies by ethnicity.

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 1: Building Relationships/Welcoming and Affirming Environment (Part 1) between the levels of Race/Ethnicity. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were 13 observations in group White, non-Hispanic, and four observations in group Other (Asian, Black, Hispanic, Multiracial).

The result of the two-tailed Mann-Whitney U test was not significant based on an alpha value of .05, $U = 29$, $z = -0.34$, $p = .734$. The mean rank for group White, non-Hispanic was 9.23, and the mean rank for group Other (Asian, Black, Hispanic, Multiracial) was 8.25. This suggests that the distribution of Part 1 for group White, non-Hispanic (*Mdn* = 76.00) was not significantly different from the distribution of Part 1 for the Other (Asian, Black, Hispanic, Multiracial) (*Mdn* = 75.00) category. Table 27 presents the result of the two-tailed Mann-Whitney U test. Figure 13 presents a boxplot of the ranks of Part 1 by Race/Ethnicity.

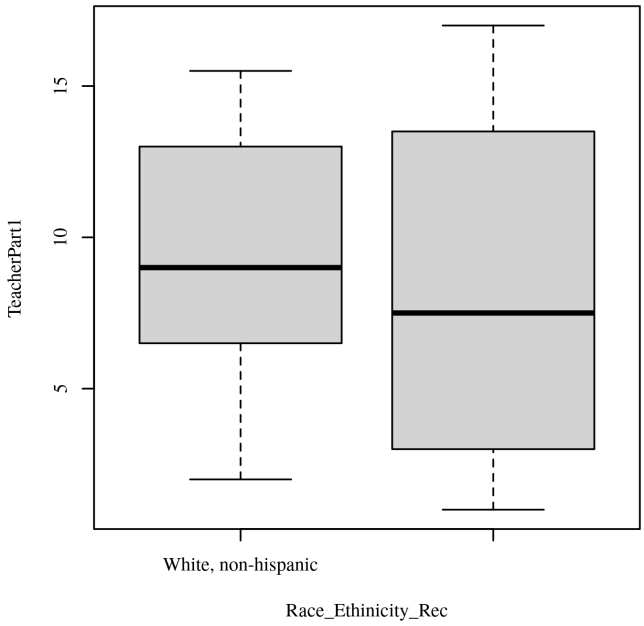
Table 27

Two-Tailed Mann-Whitney Test for Part 1 by Race/Ethnicity

Variable	White, non-Hispanic		Other (Asian, Black, Hispanic, Multiracial)				
	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 1	9.23	13	8.25	4	29.00	-0.34	.734

Figure 13

Ranks of Part 1 by Race/Ethnicity



Teacher Part 2: High Expectations and Rigorous Instruction by Race/Ethnicity

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 2: High Expectations and Rigorous Instruction (Part 2) between the levels of Race/Ethnicity. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were 11 observations in group White, non-Hispanic, and four observations in group Other (Asian, Black, Hispanic, Multiracial).

The result of the two-tailed Mann-Whitney U test was significant based on an alpha value of .05, $U = 42$, $z = -2.62$, $p = .009$. The mean rank for group White, non-Hispanic was 9.82, and the mean rank for group Other (Asian, Black, Hispanic, Multiracial) was 3.00. This suggests that the distribution of Part 2 for group White, non-Hispanic significantly differed from the distribution of Part 2 for the Other (Asian, Black, Hispanic, Multiracial) category. The median

for White, non-Hispanic (*Mdn* = 78.00) was significantly larger than the median for Other (Asian, Black, Hispanic, Multiracial) (*Mdn* = 63.00). Table 28 presents the result of the two-tailed Mann-Whitney U test. Figure 14 presents a boxplot of the ranks of Part 2 by Race/Ethnicity.

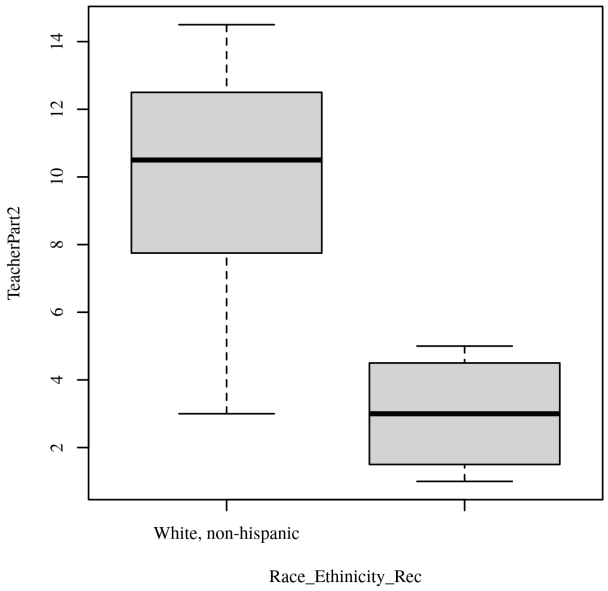
Table 28

Two-Tailed Mann-Whitney Test for Part 2 by Race/Ethnicity

	White, non-Hispanic		Other (Asian, Black, Hispanic, Multiracial)				
Variable	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 2	9.82	11	3.00	4	42.00	-2.62	.009

Figure 14

Ranks of Part 2 by Race/Ethnicity



Teacher Part 3: Inclusive Curriculum and Assessment by Race/Ethnicity

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 3: Inclusive Curriculum and Assessment (Part 3)

between the levels of Race/Ethnicity. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were 11 observations in group White, non-Hispanic, and three observations in group Other (Asian, Black, Hispanic, Multiracial).

The result of the two-tailed Mann-Whitney U test was significant based on an alpha value of .05, $U = 31$, $z = -2.27$, $p = .024$. The mean rank for group White, non-Hispanic was 8.82, and the mean rank for group Other (Asian, Black, Hispanic, Multiracial) was 2.67. This suggests that the distribution of Part 3 for group White, non-Hispanic was significantly different from the distribution of Part 3 for the Other (Asian, Black, Hispanic, Multiracial) category. The median for White, non-Hispanic (*Mdn* = 71.00) was significantly larger than the median for Other (Asian, Black, Hispanic, Multiracial) (*Mdn* = 58.00). Table 29 presents the result of the two-tailed Mann-Whitney U test. Figure 15 presents a boxplot of the ranks of Part 3 by Race/Ethnicity.

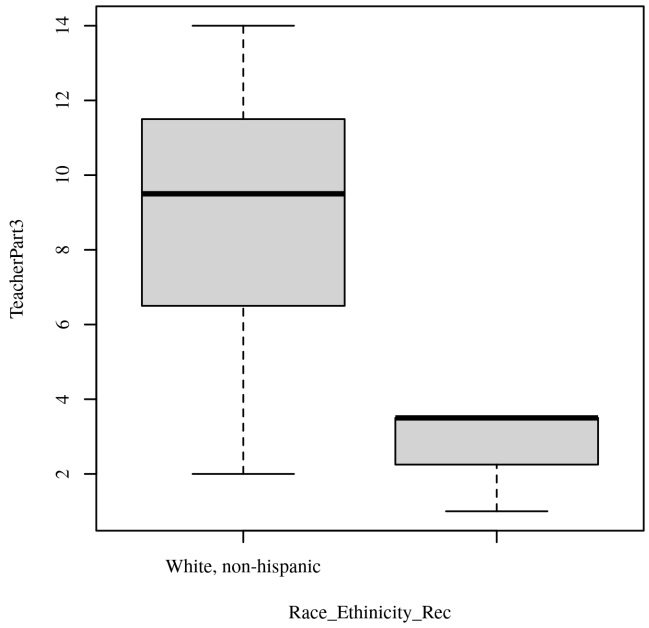
Table 29

Two-Tailed Mann-Whitney Test for Part 3 by Race/Ethnicity

	White, non-Hispanic		Other (Asian, Black, Hispanic, Multiracial)				
Variable	Mean Rank	*n*	Mean Rank	*n*	*U*	*z*	*p*
Part 3	8.82	11	2.67	3	31.00	-2.27	.024

Figure 15

Ranks of Part 3 by Race/Ethnicity



Teacher Part 4: Ongoing Professional Learning by Race/Ethnicity

I conducted a two-tailed Mann-Whitney two-sample rank-sum test to examine whether there were significant differences in Part 4: Ongoing Professional Learning (Part 4) between the levels of Race/Ethnicity. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test but does not share the same assumptions (Conover & Iman, 1981). There were 11 observations in group White, non-Hispanic, and three observations in group Other (Asian, Black, Hispanic, Multiracial).

The result of the two-tailed Mann-Whitney U test was not significant based on an alpha value of .05, $U = 16.5$, $z = 0.00$, $p = 1.000$. The mean rank for group White, non-Hispanic was 7.50, and the mean rank for group Other (Asian, Black, Hispanic, Multiracial) was 7.50. This suggests that the distribution of Part 4 for group White, non-Hispanic ($Mdn = 39.00$) was not significantly different from the distribution of Part 4 for the Other (Asian, Black, Hispanic,

Multiracial) (*Mdn* = 39.00) category. Table 30 presents the result of the two-tailed Mann-Whitney U test. Figure 16 presents a boxplot of the ranks of Part 4 by Race/Ethnicity.

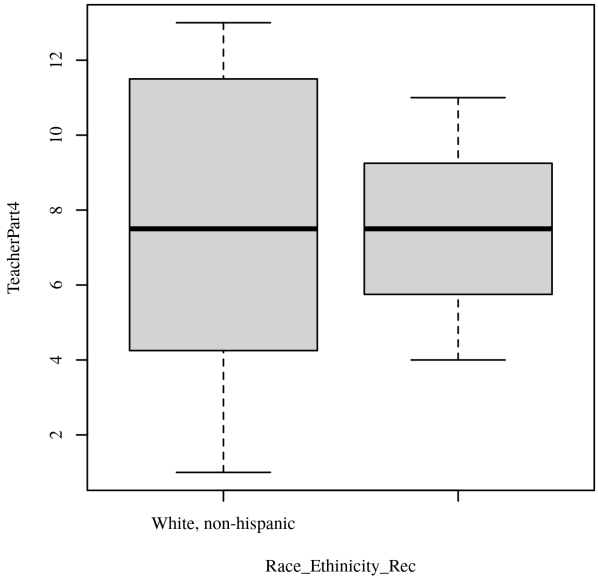
Table 30

Two-Tailed Mann-Whitney Test for Part 4 by Race/Ethnicity

Variable	White, non-Hispanic		Other (Asian, Black, Hispanic, Multiracial)				
	Mean Rank	n	Mean Rank	n	U	z	p
Part 4	7.50	11	7.50	3	16.50	0.00	1.000

Figure 16

Ranks of Part 4 by Race/Ethnicity



To summarize, research question 3d centered on the perceptions of the CR-S framework for educators by ethnicity. The results indicated a difference in Part 1 and Part 4 of the survey. White, non-Hispanic teachers reported higher average scores than other ethnicities (Asian, Black, Hispanic, Multiracial).

Qualitative Analysis

After finishing the first quantitative phase, I moved on to stage two of the process, the qualitative stage. As stated previously under the quantitative results, I asked the participants at the end of the survey if they would like to participate in a focus group interview. The goal of the focus group was to provide an opportunity to expand on the quantitative results collected through Phase 1 of survey data collection. According to Creswell and Creswell (2018), under the concurrent mixed-methods research design, the combined use of quantitative and qualitative methods is for the researcher to merge and provide a comprehensive analysis of each of the quantitative and qualitative methods utilized adding more quality to the research questions better than each method can independently. This two-tiered approach also allowed for triangulation of all the data collected and analyzed.

An email was sent to all participants, both MLs and teachers, who agreed to participate in the group interviews. However, none of the student participants responded to the invitation. I emailed or met with administrators in the school to help reach those students and then set up a time to meet with students. At both schools, the administrators reached out to the learners providing them with a copy of the consent to be signed and specific days and times for the interview. I met in person with all student participants who signed up for the interviews. There were five learners from Yellow High School in one focus group and three learners from Red High School in a focus group. The majority of the teachers who agreed to participate responded to the email and completed a doodle link or Google form to find a common date and time. Zoom was the platform used for both teacher focus groups. There were two teachers in one focus group, as one could not make it at the last minute, and three in the other interview group. Each

group of interviews, both teacher and student, had a raffle for one participant to win a $20 gift card for their participation. I used an online name randomizer program to determine a winner.

Table 31

Teacher Participants

Pseudonym	Gender	Race / Ethnicity	Years of teaching
Katie	Female	White	25
Maria	Female	Hispanic	2
Gus	Male	White	12
Mike	Male	Hispanic	7
Nick	Male	White	23

Table 32

Student Participants

Pseudonym	Gender	Race/Ethnicity	Years in School
Markella	Female	Hispanic	1
Natasha	Female	Hispanic	1
Sophia	Female	Hispanic	3
Ashley	Female	Black	1
Nikki	Female	Hispanic	1
Kyra	Female	Hispanic	Less than 1
Alex	Male	Hispanic	3
Andrew	Male	Turkish	Less than 1

The specific qualitative questions that guided this phase of the study are as follows:

RQ4. What characteristics and teaching strategies do MLs, and mainstream teachers find culturally responsive and sustaining in support of their education and learning?

RQ5. How do teachers' perceptions of the Culturally Responsive-Sustaining Education Framework contribute to their perceptions of the MLs?

I asked the learners and the teachers the focus group questions that were parallel and mirrored the CR-S framework. There were five groups of questions that were clustered around (a) Culture and Knowledge, Integration and Connection, (b) Strategies and Instruction, (c) Support and Collaboration, and (d) Assessment and Product (Appendix C and D). Some example questions for the Culture and Knowledge group were "How do your teachers show they value your culture and speak about your culture positively in class?" for the students and for the teachers, "How do you make content explicit through MLs' cultural background, prior knowledge, and experiences?" Some example questions for the Integration and Connection group were "Explain how or when you see a reflection of your culture in the classroom." for the students and for the teachers, "What do you do to bridge content and language together for all students?" Examples from the Strategies and Instruction group for the teachers were "Describe the types of strategies used to help MLs make sense of the content and language" and for the students "What strategies do your teachers use to encourage you to take responsibility for your own learning?" Examples from the Support and Collaboration for the teachers was "How do you support peer-to-peer learning and interaction?" and for the learners, "Explain the strategies your teachers use to support your learning and success." Examples of the final group of Assessment and Product were for teachers "How do you monitor MLs' growth on a regular basis?, and for students "What critical thinking skills does your teacher use to engage the class in learning?" Each focus group interview lasted around 30 - 40 minutes. The use of pseudonyms was given to each participant (see Tables 31 and 32).

Following the focus group interviews, I compiled and analyzed data using a five-step process (Akinyode & Khan, 2018). First, the interviews were transcribed into text through a cell phone application called Voice Memos and then uploaded into the RevRecorder online software to be transcribed. Secondly, I read and reviewed the transcripts from beginning to end several times and matched the information with the recorded interviews to secure accuracy of data and to become familiar with the information discussed. Next, I uploaded the transcripts into Dedoose software where I coded the excerpts. After coding all the transcripts, I generated a code occurrence table from the Dedoose platform. This enabled me to quickly observe the presence of the codes and understand their significance.

Description of Themes

Table 33 presents the literature-driven and in vivo codes along with the final merged codes and themes in Table 33. The themes included the following: (a) Valuing Students' Cultural Backgrounds, Knowledge, and Experiences, (b) Strategies to Reflect MLs Learning in the Classroom, (c) Building Supportive Classroom Culture, and (d) Teachers' Delivery of the Content.

Table 33

Literature-driven, In vivo code and subcodes, merged codes, and final themes

Literature-driven	***In-vivo***	***Merged Codes with Themes***
Culturally Responsive Practices • Teacher's delivery approaches and design to incorporate learners' background and prior experiences. • Trust and communication between teachers and learners. • Student - peer to peer interaction as a learning strategy. Effective Teaching • High expectations placed on the learners through strategic teacher lesson design. • Culturally responsive teaching approaches Teacher-student relationships • Trust and communication • Attention and affection given to the learners by the teachers. • Teachers' familiarity with their students and their backgrounds	Culturally Responsive Teaching Connecting content to the learners' background Utilizing learners' prior knowledge to make connections and foster new learning. Integration of Culture in the classroom and content Bridging content with learners' culture, background experiences, and prior knowledge Providing strategies and opportunities to foster higher-order thinking for the learners. Teachers providing supports and strategies to build learner's academic language. Strategies to Support Student Learning • Content Understanding • Knowledge-focused skills • Peer-to-peer interactions	*Theme 1: Valuing students' cultural backgrounds, knowledge, and experiences* • Taking the time to become familiar with their learners' cultural backgrounds. • Connecting students' learning to their background • Promoting the use of MLs' experiences to foster new learning. *Theme 2: Strategies to reflect MLs learning in the classroom.* • Providing dictionaries, translated materials or other translation devices for MLs • Grouping learners with other MLs and non-MLs • Providing supplementary materials to support MLs' learning. • Teachers and students monitoring growth of learning. *Theme 3: Building supportive classroom culture.* • Promoting peer-to-peer interactions among MLs and non-MLs • Creating a culture of trust and open communication between MLs and their teachers *Theme 4: Teachers' delivery of the content* • Culturally responsive teaching strategies

	• Trust and communication between teachers and learners. • Translation devices and materials • Purposeful grouping • Scaffolding the notes Teachers reflecting on their teaching delivery and style. Empowering techniques and strategies students utilize to engage in learning. Teachers and students monitoring growth of learning.	• Teachers reflecting on their teaching style and growth. • Opportunities to engage MLs in higher-order thinking. • Strategies to engage MLs and be successful in using and remembering academic language.

Theme 1: Valuing Students' Cultural Backgrounds, Knowledge, and Experiences

Chapters 1 and 2 discussed how important it is to utilize culturally responsive strategies in classrooms with MLs. One of the important components of culturally responsive strategies is incorporating and understanding the child's culture, experience, and prior knowledge. Some educators were candid about not changing their pedagogical approaches towards MLs in the classroom, which included not taking the time to get to know their students who bring diverse backgrounds and experiences to the classroom or incorporate them in the lessons. Theme 1 shares the idea that including a students' cultural background, knowledge, and experiences can directly influence students' learning and will increase the chance of positive engagement in the classroom. There were three codes to support this theme:

Taking The Time to Become Familiar with Their Learners' Cultural Backgrounds

This code shed light on both the MLs and the teachers' perceptions in a positive way. The MLs noted that many of their teachers tried to get to know them to become familiar with their cultural backgrounds, which they greatly appreciated. Andrew stated "... what was [it] like in Brazil or if something is different in school, like, but I love the class…She always ask, what it's like in Brazil?' Teachers were also expressive about the importance of becoming familiar with their learners' cultural backgrounds. Maria reported:

> But I was noticing when I was teaching my bilingual students … they were not getting it at all. And so, when I realized that the part that they weren't understanding was what is the concept of a philosopher and what their role was. I basically created a couple lessons where we listened to Spanish songs. So, they're, I guess you could equate them to like rappers in this culture, where we analyzed the lyrics, and they talked about the political problems, economic problems, problems in the home. And

> we started to kind of talk about why were they doing that? What are the effects of this? They contributed to some of the issues that they had in their home countries, which were the reasons that they came here.

Although Maria was a social studies teacher, the sentiment was mutual amongst all the educators interviewed.

Connecting Students' Learning to Their Background

Throughout the interviews, most student participants noted that they did not feel their learning connected to their backgrounds. They mentioned that in classes such as English and Social Studies, there were moments when they felt a sense of connection but continued to state that they felt it was due to the nature of the content and not intentionality by the teacher. Ashley reported:

> In general classes, I don't feel represented. It's like the only class I feel represented is US history, but that's because you kind of need to learn about different areas. But I don't, I don't feel represented [in other classes] unless it is a holiday. I can't remember what holiday it was, but it was like multicultural day. Everyone had a shirt on, but that is literally it.

The teacher interviews resembled a similar response. In general, the teachers stated they do not incorporate students' backgrounds in their learning. Katie stated "So, I don't really know that I do anything like specific with their backgrounds [in the lesson], or any such thing." There were two social studies teachers represented in the interviews and were the only participants to state how they connect students' learning to their background. Those teachers stated how they constantly call on MLs when they know their background connects or can enhance the lesson. Another example is the teachers stated that they find resources that connect to their MLs'

cultural background and use them in the class as a bridge to the new content.

Promoting the Use of MLs' Experiences to Foster New Learning

Creating an environment where teachers welcome and utilize MLs' experiences to cultivate new learning is necessary to MLs. After analyzing the responses to this code, the common thread was similar to the above-mentioned code. The students did not feel like their teachers promoted their experiences to engage in new learning. They stated that only in certain content areas was their experience welcomed. Alex states, "I think in social studies class [my experiences are encouraged], because sometimes when the teacher asks questions, I can relate it to my country." Most teachers stated they do not have methods in place to utilize MLs experiences to encourage their learning growth in the classroom, except for the social studies teachers. Nick discussed:

> …and to hear their personal experience is how I think they connect to the material that I'm teaching them. Whether it be from a PowerPoint, a slide, a textbook, a workbook, a ditto, you know, something on YouTube that they understand. I think that they all realize that there is a common connection.

It was an intriguing discovery, as the MLs' and the educators' reactions complemented one another.

Theme 2: Strategies to Reflect MLs' Learning in the Classroom

During the interviews, some teachers discussed their uneasiness with working with MLs since the teachers had not received any specific training. Katie spoke of how uncomfortable it was for her to sometimes call on a ML because she was unsure if she would be able to understand the student's response. These sentiments were shared among some of the other

educators, revealing that this is a genuine fear in classrooms where MLs are present. I used four strategy codes to elaborate further on this theme.

Providing Dictionaries, Translated Materials, or Other Translation Devices for MLs

This strategy code warranted an overall positive response. Both the teachers' and the students' responses were more focused on the use of translation devices or their peers, who speak the same language as them, to assist in their learning. None of the teacher participants stated they provide materials translated into the home language of the learner. Gus stated:

> We've gotten our programs so that they're in Spanish, so they have an option they can look at, like an Autodesk inventor. We have the Spanish version installed so they can open that up and use it, or Illustrator, you can change the language within the program itself. So, we do rely on that. I think though within the tech program, we're a little behind on helping this population to excel.

This instructor was straightforward in expressing the necessity for accommodating MLs in a Technology elective course.

All of the ML participants expressed that they utilize a translation device to help them understand their learning. Kyra reported: "Like some teachers, in my living environment class, even in English and like math, they were like, if you wanted to translate something you can, like, that's fine. They always were open about that."

Grouping Learners with Other MLs and Non-MLs

The educators spoke candidly about how they group their students, including their MLs. Almost all of the educators stated that they usually do not place their MLs in separate groups, instead they opt for a mix of students in each group. A few teachers noted they rarely purposefully group MLs together to support each other in their understanding. Gus revealed:

> I don't separate them, you know, it's just me because I feel like they're getting so much more help than I can give from someone who can, you know, sometimes explain things on a different level than I can and be able to reach to them and maybe I should be separating them. But, you know, I feel like with a lot of the core classes, it's a lot about structure and we have these standards, and we have to meet these goals and we have to take these exams.

As this teacher was discussing his group selection process, I noted that he teaches an elective course, and I made a connection to the other focus group with another teacher of an elective course stating the same reasoning for not grouping MLs differently.

Another core content area teacher openly discussed the discomfort students reveal when she tries to separate the students when she holds groups. The students also reported mixed grouping in generally all their classes. Nikki revealed "... we mostly work in [mixed] groups, which I mean, as a person that has anxiety, it really makes me feel uncomfortable around [other] people." The students all had various feelings about being in mixed groups. Most of the students did not mind being in mixed groups, but a couple of MLs were and still are uncomfortable with this.

Providing Supplementary Materials to Support MLs' Learning

This code highlighted the need for improvement in providing supplementary materials to MLs. The students stated they did not have classes where they received supplemental materials to help guide their learning. They spoke about general materials distributed and used by the whole class as a learning tool. The teachers' responses also revealed that they were using the same materials with the entire class, and not providing any personalized material for MLs. Nick elaborated on the types of supplemental materials he utilizes for the whole class and stated:

> I have students write it out in English, which is what my cards are written out in. They can transcribe it onto the other side in Spanish so that they can keep going back and forth to understand between the Spanish and the English.

He allows the MLs to transcribe the vocabulary terms if they want to but does not automatically provide those supplements. This was an alarming discovery throughout the interviews.

Teachers and Students Monitoring Growth

Monitoring learning growth is essential for both teachers and students especially when MLs are present in the classroom. Teachers need to continuously monitor the growth of MLs in order to ensure that they are making progress and achieving academic success. This requires regular assessments, feedback, and other support to address individual needs. Additionally, by involving MLs in their own monitoring process, they can take ownership of their learning and feel more motivated to achieve their goals. There was almost an equal division of responses from the MLs, where some stated they received feedback from teachers, while others stated they did not. The learners who stated positive reactions to this idea also did not provide any indication the teacher was monitoring their growth any differently than a non-ML in the class. There were no specific strategies used to ensure teachers were closely monitoring their ML achievement according to the interview responses. An example of this is what Markella stated "One of my teachers … before the quarter ends, he gives me the assignments I have missed, and he tells me to hand it in before the quarter ends. He reminds me every day."

A few of the other learners indicated the teachers call home to talk to their parents about progress in the class. They noted the teachers take the time to monitor progress by informing their parent/guardian to ensure they are up to date with the assignments as well as inform the parents of their learning successes or needs. In the teacher interviews, they talked about how they

monitor their students' learning and most teachers stated they do not have any different strategies for the MLs in the class. The few teachers that did state they monitor their MLs learning provided some strategies. Maria discussed how she reflects on MLs in her class. Maria reported:

> But I think a question I always have is like balancing content versus language acquisition versus SEL stuff. Because I talk with my coworkers and stuff like that and they're way ahead, or they cover things that I don't cover. I'm always like, is that okay? Are they missing out? Am I not setting them up to be successful? And I think that's kind of something. I'm always reflecting on trying to make sure I hit a proper balance.

Mike discussed how he individually conferences with his learners through the period each day to ensure they are understanding the content. This teacher went on to explain how he implements this approach with all his students but focuses more intently on the MLs in the classroom, supplying them with extra assistance in Spanish due to knowing the language himself.

Theme 3: Building Supportive Classroom Culture

Building a supportive classroom culture for MLs involves creating an inclusive and accepting environment where all students feel comfortable and respected. A supportive classroom culture for MLs not only enhances their learning experience but also enriches the entire classroom community by promoting diversity and understanding. These relationships are the foundation in creating a culture of trust and communication between MLs and their teachers but also with all the other learners in the class, whether ML or non-ML. There were two codes associated with this theme.

Promoting Peer-to-Peer Interactions Among MLs and Non-MLs

Teachers play a vital role in promoting peer-to-peer interactions among ML and non-ML students. They can create learning environments that encourage students to interact positively with each other, enhancing students' language skills, empathy, understanding of diverse cultures, and social skills. Most of the responses for this code are directly linked to a previous code that discussed grouping learners with other MLs and non-MLs. The general feedback from the MLs was that the teachers have created an environment where they feel comfortable with all the learners in the room and due to general grouping, as stated in the previous code, they interact with their non-ML counterparts. Natasha stated:

> …that does happen in most of my classes, like English, we work in groups occasionally and it's more conversation-driven. So, we learn about each other. And US History the same thing, in math, the teacher is very passionate about the class and making everyone feel comfortable.

It was great to hear how comfortable the students felt in their classes. The teachers were more insightful with their responses. Maria reported: “Certain [ML] students go out of their way to reach out to others and some stay very closed up and I think that's just their environment they're raised with.” In general, the teachers were confident that their classrooms provided an environment for learners to interact with each other in a positive manner. They went on to say that their students are given the freedom to work in whatever group they choose, often preferring same-language peers, though not always.

Creating a Culture of Trust and Open Communication Between MLs and Their Teachers

Creating a culture of trust and open communication between MLs and their teachers is crucial for a successful teaching experience. This code yielded overall positive results indicating that both MLs and teachers felt a culture of trust and communication. The students continued

their conversations by mentioning the qualities that their teachers had that contributed to the relationship. The traits they noted included making jokes, really hearing each student's point of view, going out of their way to make them feel at ease, and helping the students interact with one another. Sophia stated:

> …that teacher is extremely understanding. She listens to her students no matter where they come from, what type of person they are, and I feel like that creates such a great and commutative classroom because everyone feels comfortable. Even students that are usually quiet or that are loud, like they all come in the middle almost. And she tries her best. For example, with students who are bilingual if she doesn't understand what they're telling her because there's a lot of students who don't know much English so it makes it extremely difficult for both parties and she just tries her best to listen, to be there for the students. I feel like that should be normalized in a way because that makes the students obviously feel better. It just makes the room and the classroom feel more comfortable for everybody there.

Teachers indicated they provide relaxed environments in the classroom along and assure the learners they can approach them with anything they might need.

Theme 4: Teachers' Delivery of the Content

Teachers' delivery of content for MLs in the classroom is a vital aspect of ensuring their understanding and success in learning. By using clear and concise language, providing visual aids, and allowing for various modes of communication, teachers are better able to connect with and engage their learners. This approach promotes comprehensible input and supports the development of language skills in both the learner's first language and the target language, resulting in improved learning outcomes and increased confidence in the classroom.

Culturally Responsive Teaching Strategies

Culturally responsive teaching strategies help MLs feel seen, heard, and understood, which can improve their engagement, motivation, and academic achievement. Overall, all the conversations in these interviews equate to culturally responsive teaching strategies and practices. This code focused on specific strategies students and teachers perceive to be effective and occurring in the classroom. According to the MLs' perceptions discussed in the interviews, they revealed that their teachers overall do not implement culturally responsive strategies to accommodate them intentionally. They furthered in stating that teachers make them feel comfortable but do not take the time to get to know their culture and background through different strategies to embed and utilize in their learning. Teachers were frank in stating they do not provide the MLs culturally responsive strategies how they should. Katie stated, "I know me personally, I will say that I need to step up my game and be better and make sure everything that I'm giving out is relatable to everybody." Another teacher, Mike, added to this fault by saying:

> So I try not to put in any differences between how I would approach a Latino student versus somebody who speaks English natively. Because the reality is that once they're out of the classroom, nobody's gonna care, you either can do it or you can't, you know?

Furthermore, there were a couple teacher outliers in their strategy approaches. Nick reported:

> I basically approach all the students the exact same. I don't know if I should or I shouldn't… I go in with the approach, whether it's a special ed student or a ML or general education student, I try to teach them all on the same playing field at first, and realizing that not all of them are, and then I have to adapt my lessons to the best of my ability.

Overall, the use of culturally responsive teaching strategies based on the interviews showsa need for improvement.

Teachers Reflecting on Their Teaching Style and Growth

When teaching MLs, reflection helps teachers recognize areas of growth in their understanding of diverse cultures, the learning needs of their students, adapting their teaching practices and creating a culturally responsive classroom to increase student achievement and success. Some teachers were honest in mentioning they do not always pay attention to the classifications of their students stating they did even know they had MLs in the class until they had an observation and had to provide the demographic breakdown. They reinforced this response by stating that the student has a high level of understanding and proficiency in English, thus not demonstrating any difficulties with comprehension or communication. Teachers overall seemed to be reflective in their teaching. They appear to understand what they should be doing differently but have not been intentional in providing the necessary resources, accommodations, and support for their teaching and instruction of MLs. Students were not aware of their teachers' reflection processes or what ways they edited their lessons or delivery styles.

Opportunities to Engage MLs in Higher Order Thinking

Opportunities to engage MLs in higher-order thinking are essential for their cognitive development and growth. This code generated limited feedback in the interview process. There were many responses about different approaches teachers utilize to engage their learners, but not many that were ML specific. The learners, as previously mentioned in codes above, stated their teachers have opportunities to engage in higher-order thinking but did not provide any additional support to accommodate them as a ML. The teachers generally expressed a desire to see their MLs succeed and engage in higher-order thinking. Yet, beyond whole-class support, they stated

they do not have enough understanding of possible strategies necessary to use as resources to help their MLs reach this level of achievement.

Strategies to Engage MLs and be Successful in Using and Remembering Academic Language

Teachers should use strategies to engage MLs, or MLs to ensure success in using and remembering academic language. By providing a range of strategies and resources, educators can help MLs thrive academically and achieve their full potential. The teachers' responses were positive in discussing strategies they use to help MLs be successful with academic language. Mike stated:

> I try to use hand gestures showing what we are going to learn and for vocabulary. And I try to act it out almost. You know, it feels a little bit ridiculous, but it certainly helps when you're having a student who has a language barrier.

Mike later added that when he sees a learner struggling to understand something, he will go and sit down and ask them what they didn't understand. Other strategies teachers discussed by the teachers were the use of graphic organizers, guided notes, writing everything on the board, and providing formula sheets. They emphasized that these strategies were for the benefit of all students and were not designed or provided specifically to accommodate MLs.

In summary, the qualitative results focused on discussions pertaining to CR-S principles and how MLs and general education teachers perceive the implementation of these practices in their classrooms. Interviews allowed me to fully explore the MLs' and the teachers' insights and make connections between both participants' conversations. Through deeper discussions, I was able to truly understand how MLs view their teachers' classroom procedures, lesson delivery, and attitudes in general education classes. Alongside those findings, I was able to have honest conversations with teachers about creating a culturally responsive environment and embedding

the practices. At the end of both teacher focus group interviews, they all expressed a desire for more learning opportunities in their schools. They showed a genuine interest in amplifying their understanding and making more conscious efforts to support MLs.

Integration of the Findings – Mixed-Methods Results

The integration of the mixed-methods results provided a more comprehensive and nuanced understanding of the CR-S framework with and for MLs. The findings highlighted the importance of building relationships and utilizing these relationships to develop lessons where teachers promote MLs' backgrounds, culture, and experiences. Additionally, the findings emphasized the need for more intentional approaches to ML support, including ongoing professional learning for teachers to implement CR-S practices effectively.

The goal of this study was to identify if there were differences in the perceptions of CR-S strategies used in mainstream classrooms from the lens of MLS and their teachers. Additionally, the data findings also helped discover if teachers are consciously implementing such strategies to accommodate MLs and if MLs are feeling these practices as a means to foster classroom experience. The data obtained through quantitative surveys and the results of the qualitative focus group interviews were combined to answer this dissertation's mixed-methods question: *To what extent and in what ways do qualitative interviews with students and teachers serve to contribute to a more comprehensive and nuanced understanding of the Culturally Responsive-Sustaining Framework with and for MLs, via integrative mixed-methods analysis?* This section describes the integration of the findings as directed by concurrent mixed-methods design, which according to Creswell and Creswell (2018), explains the merging of quantitative and qualitative data provides a more comprehensive analysis.

To begin this process of integrating results from both data sets, I reviewed all quantitative data sets and matched the findings with the major themes that emerged through the qualitative analysis. Next, I matched the major statistically significant findings between each part with the four major themes formed through the qualitative findings and explored these concepts further. The following section will report the findings revealed through the integration analysis. Table 34 demonstrates how the qualitative result strengthened the quantitative findings and allowed for the formulation integrative assumptions. In this section, I will report the findings of the integration analysis organized by the research questions and phases of the study.

Part 1: Building Relationships/Welcoming and Affirming Environment

Research Question 1 asked, *Is there a difference between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework delivery?* Through the quantitative analysis, the overall results for Part 1 showed there was a mean difference in perceptions of these principles for both sets of participants. Since the data results yielded differences, I then looked at RQ2, which was *What differences exist between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom?,* and further analyzed each question to see exactly where the differences were shown. Some of the survey questions that showed significant differences are: *(a) My teachers are interested in my life and experiences, (b) My teachers asks me to share my stories about my life, (c) Students respect each other and value the ideas and opinions of their classmates, and (d) My teachers communicate with my family regularly. The overall qualitative results supported the quantitative findings*. There was one area where the quantitative and the qualitative were not representative of the same findings. The survey question, *My teachers asks me to share my stories about my life*, yielded a student response of a mean score at a higher end

disagree ($M = 2.82$), while the teachers' mean score was the higher end of *agree* ($M = 4.76$) on the Likert scale. Throughout the qualitative interviews, both the students and the teachers discussed positive responses to teachers asking learners about their cultural background within the class.

Question 3 investigated, *Do MLs' and teachers' perceptions of the CR-S Framework strategies differ by gender or ethnicity?* According to the quantitative analysis, both the MLs and the teachers' findings did not yield any significant differences for both gender and ethnicity. The responses were comparative. The qualitative also reported similar discussions between the gender and ethnicities of the students and the teachers.

The integration of the findings showed that both MLs and teachers agreed that there was a need to focus more on promoting MLs' experiences and connecting their culture to classroom content to foster and sustain new learning. The integration also highlighted the importance of building relationships in the classroom and utilizing these relationships to develop lessons where teachers promote MLs' backgrounds, culture, and experiences.

Part 2: High Expectations and Rigorous Instruction

I also analyzed Part 2 for research question 1. Through quantitative analysis, the overall results for Part 2 showed no mean difference in perceptions of these principles for both sets of participants. Both the students and the teachers responded just under *agree* on the Likert scale. This signifies a need to focus on implementing high expectations and rigorous instruction strategies to help MLs deepen their learning. Since the data results did not yield differences, I did not look into research question 2 for this part. The overall qualitative results supported the quantitative findings. Both MLs and the teachers reported a need to focus more on strategies in the classroom that are ML focused.

Research Question 5, *How do teachers' perceptions of the CR-S Framework contribute to their perceptions of the MLs?* was investigated through theme 4 (Teachers' delivery of the content). Teachers reported they are implementing techniques and strategies to support MLs but need to improve on more targeted supports in their class. The students also reported similar findings of teachers implementing support in the class, but they are whole class, not ML specific.

I also investigated Question 3 for Part 2. According to the quantitative analysis, the MLs' findings did not yield any significant differences for both gender and ethnicity. The responses were comparative in nature. The teachers' responses did display a significant mean difference for Ethnicity, not for Gender. The qualitative reported a similar finding. The two teachers that were Hispanic discussed having more understanding and knowledge of their learners' language and can implement more varied strategies and approaches than their White counterparts.

The integration of findings showed that both MLs and teachers perceived a need to be more rigorous and hold MLs to higher expectations. Teachers reported that they reflected on their teaching style, engaged MLs in higher order thinking, and implemented strategies for academic language retention. Both sets of participants were aware of the delivery style needed but noted that specific accommodations for MLs were not intentionally occurring.

Part 3: Inclusive Curriculum and Assessment

I examined Question 1 for Part 3. The quantitative analysis results for Part 3 showed no mean difference in perceptions of these principles for both sets of participants. Since the data results did not yield differences, I did not look into research question 2 any further for this part. The overall qualitative results supported the quantitative findings. Both MLs and the teachers reported a need to focus more on strategies in the classroom and implement more opportunities

for MLs to engage in such strategies to be successful in academic language and content understanding.

Question 3, under the analysis of Part 3, did show differences in Gender responses for MLs and differences in Ethnicity responses for teachers. MLs who were Male reported lower scores than their Female counterparts. Teachers who responded White reported higher scores than teachers who responded Other (Asian, Black, Hispanic, Multiracial). The interviews did not represent the same findings for this part. The teachers were all honest in stating the need to focus more on MLs and gain more strategies and support to implement in the classroom.

The integration of findings showed that both MLs and teachers agreed that they used some practices, but there is a need for more intentional approaches to ML support. MLs and teachers reported a need to implement more strategies that reflect MLs in the classroom, such as supplementary materials and growth monitoring techniques. Teachers reflected on being more intentional with MLs in their classrooms, while MLs expressed a need for more support and strategies in the classroom directed toward their needs.

Part 4: Ongoing Professional Learning

The integration of findings showed that both MLs and teachers agreed that there was a need to focus more on providing teacher support through professional development so that MLs can receive more individualized support in the classroom. Teachers reported reflecting on their practice and needing more support in learning new strategies and techniques to help implement CR-S practices for their MLs. MLs also expressed a need for more support and strategies in the classroom directed toward their needs.

Question 1 was examined for Part 4, reporting a significant mean difference between MLs and teachers. The students' mean value ($M = 25$) was lower than their teachers’ mean value

(*M* = 29). This data translates to students scoring a high *neutral* and the teachers scoring just above *agree* on the Likert scale. Question 2 was analyzed to locate the specific areas of differences which were: *My teachers work together to make learning better, and my teachers ask us how we think they are teaching, and we talk about it.* The qualitative findings displayed the same findings furthering the idea that teachers need to reflect more on their approaches to MLs and provide more strategic CR-S strategies in the classroom for MLs. The results are not alarming after analyzing the data compared to what I know of the field. Having been a teacher and now an administrator, I have seen firsthand many teachers failing to know how they can properly support MLs in their classes. Often, these same teachers would come to me asking what methods they could use to make the students (and themselves) feel more comfortable in the classroom environment.

Integrative question 6 aimed to examine both quantitative and qualitative phases together and asked: To what extent and in what ways do qualitative interviews with students and teachers serve to contribute to a more comprehensive and nuanced understanding of the Culturally Responsive-Sustaining Framework with and for MLs, via integrative mixed-methods analysis?

This study yielded significant results that offered a thorough understanding of both qualitative and quantitative data, giving us insight into the views held by current MLs and their educators.

The overarching question of this study was, How do multilingual learners' perceptions and experiences of the CR-S framework classroom implementation and strategies differ from the perceptions of their teachers? The results of this study confirmed and expanded the understanding of different strategies and techniques valued by MLs and teachers. It was evident

both sets of participants used strategies and techniques in the classroom, and both revealed the need to gain more knowledge and strategies to further support MLs.

Table 34

Quantitative and Qualitative Integrative Analyses

Research Questions	**Quantitative** (*Phase 1*)	**Qualitative** (*Phase 2*)	**Mixed-Methods Findings**
Overarching RQ: How do multilingual learners' perceptions and experiences of the CR-S framework classroom implementation and strategies differ from the perceptions of their teachers?			
Part 1: Building Relationships/Welcoming and Affirming Environment.			
RQ1- Differences between MLs' and the teachers' perceptions of the CR-S framework delivery.	There was a statistical mean difference between MLs' and teachers' perceptions for Part 1.	Students generally expressed their teachers provide a welcoming and affirming environment but also stated they do not have strong relationships with all their teachers, only some. Teachers reported positive remarks about this.	Both sets of participants felt Building Relationships needed growth and creating welcoming and affirming environments was positive.
RQ2 -What differences exist between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom?	Overall, the reported findings showed that 24 out of 61 questions yielded significant mean differences between participants.	Students and teachers had similar responses besides under one code. The teachers had a more positive response to monitoring MLs' growth than the students.	

RQ3 - Do MLs' and teachers' perceptions of the CR-S Framework strategies differ by gender or ethnicity?	There was no mean difference for teachers and students.	The students and the teachers in the interviews reported similar responses compared by gender and ethnicity.	
Part 2: High Expectations and Rigorous Instruction			
RQ1- Differences between MLs' and the teachers' perceptions of the CR-S framework delivery.	There was no mean difference between the students and the teachers.	Both MLs and teachers explained a need to focus more on MLS specific strategies as current strategies are for general use by all students.	There needs to be more rigorous instruction for the MLs to be held to a high standard. Both sets of participants identified strategies used and would like training in more ML-specific ones.
RQ3 - Do MLs' and teachers' perceptions of the CR-S Framework strategies differ by gender or ethnicity?	There were no mean significant findings between teachers and students	The Hispanic teachers reported more use of CR-S strategies, and they can communicate in the same language and have a deeper understanding of the MLs' background.	
RQ5 - How do teachers' perceptions of the Culturally Responsive-Sustaining Education Framework contribute to the perceptions of the MLs?	There was no difference between both participants.	The teachers and the students reported similar results in stating strategies are being used but are whole class not ML-specific.	
Part 3: Inclusive Curriculum and Assessment			

RQ1- Differences between MLs' and the teachers' perceptions of the CR-S framework delivery.	There was no difference between both participants.	Both sets of participants noted a need to focus on more strategies in the classroom for academic language support.	Both sets of participants noted they used many practices, but all mentioned a need for more.
RQ3 - Do MLs' and teachers' perceptions of the CR-S Framework strategies differ by gender or ethnicity?	There was a mean difference for students by Gender and a mean difference for teachers by Ethnicity.	The interview did not display a difference by gender or ethnicity in their responses by both students and teachers.	
Part 4: Ongoing Professional Learning			
RQ1- Differences between MLs' and the teachers' perceptions of the CR-S framework delivery.	There was a statistical mean difference between MLs' and teachers' perceptions for Part 4.	The interviews reported similar results where the students discussed the need for more attention on growth and reflection opportunities, and teachers discussed how they reflect and monitor students' growth often.	Teacher reported the need for more training and reflection opportunities. They did report positive approaches they are currently utilizing. The students do not perceive the same approaches as their teachers. They see a lack of teachers reflecting or giving them opportunities to reflect on their learning.
RQ2 -What differences exist between MLs' perceptions of the CR-S framework and the teachers' perceptions of the CR-S framework implementation and delivery in the classroom?	Overall, the reported findings showed that 2 out of 7 questions yielded significant mean differences between participants.	The teachers and the students discussed varying responses. The students spoke about the teachers not displaying characteristics of reflection, and the teachers noted they could use more support in CR-S practices.	

Conclusion

As stated in the beginning of this chapter, the purpose of this study was to examine the perception differences between MLs and their teachers as they relate to the NYS CR-S framework practices. This study also intended to shed light on delivery and classroom practices by teachers of general education classes who are not certified ESOL but have MLs on their roster. The results showed that MLs might not have their needs met during general education classes if teachers lack the adequate training to accommodate them. This research is one of few to compare how teachers deliver instruction versus how students perceive it in terms of the NYS CR-S framework.

This chapter contains a detailed analysis of both phases of this research. The chosen concurrent research design allowed me to utilize both the quantitative findings with the qualitative data and ultimately integrate the findings to strengthen the understanding of the perceptions differences and similarities between MLs and their teachers in reference to CR-S strategies.

The qualitative findings supplemented the quantitative findings by showing that the majority of students' and teachers' participants perceptions'' were similar. The integrative findings showed what particular parts of the CR-S framework need more focus and attention. The integrative findings also revealed the necessity of building professional development in schools targeted to general education teachers with MLs in their mainstream classes. It is critical to note that the qualitative findings could only partially support the quantitative results due to the small sample size of the interview phase. Although one cannot generalize, qualitative data generality supports the quantitative findings.

Chapter 5

Conclusion

> "Teaching methods that connect with students' real lives and interests and promote understanding of other cultures are associated with better academic outcomes." (Byrd, 2016, p. 7)

There are more MLs in today's classrooms than in the past. Educating MLs involves much more than following a set of strategies and scaffolded notes (Machado, 2017). It requires building trust and encouraging collaboration between MLs and their mainstream general education teachers to help these learners advance academically and linguistically. This study aimed to understand and measure the perceptions of the CR-S Framework practices as it relates to both MLs and their teachers in the mainstream classroom.

The purpose of the adoption of the CR-S in New York was to provide core principles to guide teachers who work with MLs. The framework has four guiding principles to cater to the needs of MLs by focusing on their academic success in the curriculum (NYSED, 2019). Although prior research has already suggested the advantages of using culturally responsive teaching methods in general classrooms for MLs (such as Brown, 2004; Gay, 2002; Hramiak, 2015; Ladson-Billing, 1995; Machado, 2017), this framework has not been extensively examined. Therefore, further research is still required to determine the effectiveness of culturally responsive-sustaining teaching strategies specifically for MLs and how teachers perceive them. There are concerns about the possible disparities between how teachers deliver such strategies and how MLs perceive and receive them.

Problem Statement

It is evident through the literature that MLs require an alternative learning method, thereby necessitating a shift in the mindset and strategies employed by teachers in mainstream classrooms. This chapter summarizes this dissertation study, including the purpose of the underlying research, an overview of the major problem addressed, and the mixed-methods research methods applied. Also included in the chapter are important conclusions taken from the integration of the qualitative and quantitative data analyses by revisiting the Research Questions, findings related to the literature, recognized limitations and delimitations, discussions of the implications for actions, and recommendations for future research related to the dissertation study's general topic.

The introduction of the CR-S framework in 2018 proved beneficial for teachers in supporting MLs. This innovative approach to education aims to provide equal value and support to all students, regardless of their background or linguistic abilities. It encourages teachers to foster positive learning outcomes by incorporating their students' diverse and ethnic backgrounds, emphasizing cultural competence, and promoting culturally responsive pedagogy. By tailoring instruction to students' linguistic and cultural backgrounds, teachers can create an inclusive learning environment that enhances MLs' learning experience. The CR-S framework equips educators with the knowledge and tools necessary to support MLs, fostering a more equitable and effective educational system.

Implementation of the CR-S framework varies across New York State, with some school districts in Long Island beginning to discuss its integration into their curriculum. It is crucial to enact the necessary measures promptly due to marked changes in student enrollment. Research indicates that implementing culturally responsive pedagogy principles is effective in creating

equitable and inclusive learning environments for all students. The CR-S framework provides specific strategies and tools to support this practice, including developing culturally responsive curricula, using culturally responsive teaching practices, and establishing culturally responsive classroom communities.

Although the literature recognizes the importance of implementing culturally responsive practices in the classroom, limited research exists on the perceptions of both MLs and their general education teachers on culturally responsive teaching in mainstream classrooms. Their perceptions should align for effective culturally responsive teaching.

Summary of the Study

The purpose of this mixed-methods dissertation study, under a concurrent parallel design, was to examine both MLs and mainstream teachers on their perceptions regarding the CR-S framework approaches in a mainstream classroom. The purpose was to identify characteristics and teaching techniques linked with their cultural environments to provide adequate differentiated learning for diverse ethnic students. In New York State, there are 240,035 registered MLs in K-12 public schools and an estimated 43,100 on Long Island (NYSED.gov, 2021).

To thoroughly investigate the problem, I relied on a quantitative approach to determine differences between variables and qualitative focus group interviews to deepen the understanding of the numerical findings. Data were collected in two phases during the beginning of the second semester of the 2022/2023 academic year, from February 2023 to April 2023. The quantitative data component (Phase 1) was collected utilizing the CISSA Survey (McDermott Goldman, 2022), which was distributed to the participants electronically via Qualtrics. The qualitative phase (Phase 2) consisted of four semi-structured focus group interviews with teachers and MLs

to gain information that would allow for a more in-depth, comprehensive understanding of their perceptions of CR-S strategies and practices in the classroom.

To ensure the accuracy of this study, I used SPSS, Intellectus, and Dedoose data management programs to organize, analyze and code my data. I also examined all consented recordings, transcripts, and my notes to substantiate the gathered information. Additionally, I worked closely with my committee chair to ensure no discrepancies and issues with my reporting.

Summary and Interpretation of Findings

Quantitative Findings

I used a survey questionnaire in this study to collect quantitative data, specifically the CISSA survey (McDermott Goldman, 2022), which aligns with the NYS CR-S framework's four core principles. I distributed the survey to both MLs and teachers, with the ML questionnaire including demographic questions and four parts of 61 Likert-type questions focused on the teachers' delivery of lessons, high expectations, inclusivity, and ongoing professional development. The teacher questionnaire also included demographic questions such as the teachers' years of experience teaching, ethnicity, certifications they have acquired, and their gender and other information. The teacher survey also reflected the same four parts of the CISSA questionnaire as the ML version. Both surveys were completed via Qualtrics and took approximately 7-10 minutes to complete.

Once the CISSA Survey closed, the data used in the analysis of the study were 154 students and 19 teachers. Quantitative descriptive findings revealed differences in certain parts of the four core principles between MLs and their general education teachers' perceptions of CR-S practices in the classroom. Part one (Building Relationships/Welcoming and Affirming

Environment) and part four (Ongoing Professional Learning) of the survey revealed significant differences in how teachers and MLs perceived the CR-S practices, where MLs rated them lower than their teachers. Part 2 (High Expectations and Rigorous Instruction) and Part 3 (Inclusive Curriculum and Assessment) yielded no significant mean differences showing mean values for neutral or agree ratings on the Likert scale. The results showed that both sets of participants tended to rate responded lower to mid perceptions of these parts, which signifies a need for more focus and improvement.

Qualitative Findings

I conducted the qualitative component of the study after the survey to allow a comprehensive understanding of quantitative results. I organized participants into focus groups, with a total of five teachers and eight MLs taking part in the second phase of the study. During each group discussion, participants further explained their personal perspectives on how they perceived evidence of the NYS CR-S framework principles in their classroom. Four themes emerged from data analysis: (a) Valuing students' cultural backgrounds, knowledge, and experiences, (b) Strategies to reflect MLs learning in the classroom, (c) Building supportive classroom culture, and (d) Teachers' delivery of the content.

The results indicated that teachers' and MLs' perceptions were not overall too satisfied with the CR-S practices currently used and implemented. Both sets of participants expressed a need to increase strategies and implementation techniques in the classroom. Theme one yielded a low positive rate from both the teachers and the students. They expressed the need to focus more on valuing students' cultural backgrounds and implementing them into the content to bridge their learning. Theme two results displayed a need for more improvement in strategy techniques utilized for ML learners. The current strategies mentioned by both sets of participants were for a

whole-class support and not intentionally geared toward MLs. Theme three had positive reports from both sets of participants displaying a highly supportive classroom culture between teachers and their MLs. Theme four results showed a need to provide more targeted strategies and opportunities for MLs to engage in higher-order thinking and usage of academic language. Additionally, teachers' reflections on their teaching style and growth were positive, where they frankly discussed the need better training to implement CR-S strategies more comfortably to support MLs.

Mixed-Methods

I conducted the integration of quantitative survey data and qualitative focus group interviews using a concurrent mixed-methods design, which provided a more in-depth analysis of the findings. This integration allowed me to make several conclusions and increase my understanding of current practices of mainstream teachers in mainstream classrooms for MLs. The following sections summarize the findings of the integration analysis organized by the four core principles along with the research questions.

Part 1: Building Relationships/Welcoming and Affirming Environment.

The quantitative analysis provided insight into the differences perceived by MLs and their teachers. The data showed a statistical mean difference between students ($M = 62.9$) and teachers ($M = 76.1$). The students' responses on the Likert scale were closer to the neutral option as the teachers were between the *agree* and *strongly agree* option. Theme 1 and Theme 3 related to this part of the survey. In the qualitative analysis, both the students and teachers reported a need to focus more on promoting MLs experience and connecting their culture to the content. There were positive findings for Theme 3, which entailed promoting peer-to-peer interaction and creating a culture of trust and communication. The findings from the quantitative and qualitative

showed differences in the results. The quantitative analysis reported a difference between MLs and their teachers while the qualitative analysis displayed the similar perceptions between MLs and their teachers. The integration of the findings displays a need to focus on building relationships in the classroom and utilizing those relationships to develop lessons promoting MLs' backgrounds, culture, and experiences aids in fostering and sustaining new learning.

This study supports and expands on what the literature discussed regarding the importance of making the proper connections to the students' lived experiences and embracing the cultural backgrounds in the classroom (Gay, 2002; Stronge et al., 2011; Villegas & Lucas, 2002). The findings of this study add to the existing literature because it revealed that there is still a need to incorporate CR-S strategies and techniques into the classroom to provide connections for MLs to help them achieve their highest potential. Moreover, the study also pointed to certain aspects of CR-S strategies that require more attention in the training of general education teachers.

Part 2: High Expectations and Rigorous Instruction

The quantitative analysis provided insight on the differences perceived by MLs and their teachers. The data showed no mean difference between students ($M = 73.5$) and teachers ($M = 74.5$). The students' and the teachers' responses yielded close to agree on the Likert scale. Both students and teachers' perceptions are lower, interpreting a need to be more rigorous and holding MLs to higher expectations. Theme 4 related to this part of the survey. In the qualitative analysis, the teachers reported positive findings of teachers reflecting on the teaching style, the need to engage MLs in higher-order thinking, and implementing strategies for academic language retention. Overall, the teachers spoke to not paying as much attention to specific accommodations for MLs but providing whole class strategies for all learners. There was

consistency in the findings from the quantitative and qualitative analyses showing no differences between the views of MLs and their teachers. The integration of the quantitative and qualitative findings was similar. Both sets of participants were neutral, aware of the delivery style needed and not intentionally occurring. The literature is clear and supported in this study discussing MLs requiring a different approach to their learning because of their diverse backgrounds (Watson & Houtz, 2002).

It is important to note previous literature that states teachers' expectations can potentially influence ML's academic performance by lowering their expectations regarding these students (Garcia & Chun, 2016). At times, teachers lower their expectations concerning the performance of MLs, given that they face distinct obstacles resulting from their diverse backgrounds and may not achieve results on par with their non-ML counterparts. The findings of this part need a strong focus to ensure that teachers are not lowering expectations for their MLs. If educators cultivate an environment that fosters high performance, MLs are likely to rise to the challenge.

Past research confirms the findings of Part 2 by stating that to apply a culturally responsive teaching framework effectively, it is imperative for teachers to display proficiency in their subject matter. A skilled practitioner employs diverse instructional methods such as direct instruction, personalized instruction, exploration-based lessons, and active learning while gauging student comprehension and making necessary adjustments based on feedback. Moreover, teachers must equip learners with fundamental competencies and critical thinking skills that enable them to thrive academically (Stronge et al., 2011).

Part 3: Inclusive Curriculum

The quantitative analysis provided insight into the differences perceived by MLs and their teachers. The data showed a no mean difference between students ($M = 61.5$) and teachers

(M = 66.9). The students' responses yielded close to *Agree* on the Likert scale and the teachers' yielded just above *Agree*. Theme 2 and theme 4 are related to this part of the survey. In the qualitative analysis for Theme 2 both the students and teachers reported a need to implement more strategies that reflect MLs in the classroom, such as supplementary materials and growth monitoring techniques. The findings for Theme 4 mainly focused on the teachers' perspectives showing teachers being reflective in their practice and discussing the need to be more intentional with MLs in their classrooms. The findings from the quantitative and qualitative analyses were consistently showed no differences between the views of MLs and their teachers. The integration of the quantitative and qualitative findings was similar, strengthening the results. Both sets of participants agreed they used some practices, but there is a need for more intentional approaches to ML support.

The findings support the literature, which states that a teacher should utilize a range of assessment tools and appraise which method is suitable at any given moment in the lesson being responsive to their learners, especially MLs (Akiri, 2013). This can provide students with feedback and foster positive achievement to their learning (Akram, 2019). It was not surprising to have results that demonstrated a need for mainstream teachers to push and support MLs in their classroom. As a previous teacher, it was evident that my colleagues did not receive training to teach MLs and lacked resources and strategies to support and push their learning.

Part 4: Ongoing Professional Learning

The quantitative analysis provided insight on the differences that MLs and their teachers perceived. The data showed a statistical mean difference between students (M = 25.5) and teachers (M = 29.2). The students' responses on the Likert scale were closer to the *Neutral* option as the teachers were just above the *Agree* option. Theme 4 related to this part of the survey. In

the qualitative analysis, teachers reported they are reflective of their practice. They were honest about needing more support in learning new strategies and techniques to help implement CR-S practices for their MLs. Students reported the need for more support and strategies in the room directed to their needs and discussed the techniques they currently use for all learners. The findings from the quantitative and qualitative analyses were inconsistent. The quantitative analysis yielded a mean difference, while the qualitative results reported similar responses.

The integration of the mixed-methods results provided a more comprehensive and nuanced understanding of the CR-S framework with and for MLs. The findings highlighted the importance of building relationships and utilizing these relationships to develop lessons promoting MLs' backgrounds, culture, and experiences. Additionally, the findings emphasized the need for more intentional approaches to ML support, including ongoing professional learning for teachers to implement CR-S practices effectively. Past literature discusses how teachers referred to as “good teachers” get placed teaching MLs. However, they do not necessarily implement the proper elements that reflect the culturally responsive-sustaining teaching framework (Byrd, 2016).

Surprise Findings

The study’s results were surprising for me as the researcher. I was expecting more implementation of the CR-S practices to be present in mainstream classrooms. CR-S principles are not a new discovery, they have been around for decades, yet the results of this study showed the lack of implementation in the classroom by mainstream teachers. Having worked in a few schools on Long Island, administrators constantly provide professional development around MLs approaches. This signifies to me that the teachers are not making the connection into the classroom or are unwilling to change their delivery methods.

Contribution to Theory

This research study utilized a mixed-method design to explore the perceptions of CR-S practices by MLs and their teachers in mainstream classrooms. As documented in Chapter 2, there have been several studies focusing on culturally responsive teaching (Byrd, 2016; Chuang et al., 2020; Garcia & Chun, 2016; Gay, 2002; Ladson-Billings, 1995; Paris, 2012; Zorb, 2020). However, none of these studies collected data from both students and their teachers to cross-analyze their responses.

I believe this dissertation study has added a new element to the literature on the needs of general education teachers who teach MLs. We must focus on these teachers because it is alarming that there is still such a need, even after all the studies and resources that connect to using CR-S practices in the classroom to accommodate MLs in their learning. School districts should spend more time educating and training general education teachers with CR-S strategies and techniques to help the teachers accommodate MLs. There needs to be a focus on administrators ensuring general education teachers are implementing specific strategies to meet the needs of MLs in their mainstream classrooms. This will hold the district accountable for providing the appropriate professional development and the teachers accountable for implementing the strategies.

Additionally, it is important to note the way MLs perceive these efforts. There were results in this study that signified they rated and discussed lower responses when it comes to the utilization of CR-S practices to enhance and engage them in learning. They were aware of strategies teachers used but knew those strategies were whole-class instruction and not meant to accommodate their unique needs. There needs to be a focus on MLs' understanding of what

types of strategies might benefit to them. Schools can provide a time and place where MLs can interact with various techniques and approaches they can recognize as supports for them individually.

I examined the outcomes of this study through the lenses of the NYS Culturally Responsive-Sustaining Education Framework.

Limitations, Delimitations, and Recommendations for Future Studies

Several limitations to this study should be acknowledged and inform future research. In their discussion, Creswell and Creswell (2018) noted potential limitations with the design of concurrent mixed-methods studies, warning of the possibility of contradictions or incongruent findings. They emphasized the importance of ensuring alignment between the questionnaire and focus group questions. For my study, I ensured the alignment of the questionnaire and the focus group questions were parallel to both the student and the teacher version and aligned directly to the CR-S framework prior to distribution.

Limitations in data measurement were also discussed, acknowledging that I may have omitted important questions from the questionnaire. To ensure my analysis was accurate, I removed a few of the teacher questions and responses from the data set to align each student question with the teacher question version. Since teachers are more familiar with CR-S strategies than the MLs, their questionnaire had more questions and was more comprehensive in certain sections.

Another limitation of this study was the demographics and sample size of the teacher participants. Most of the teacher participants were only of two ethnic backgrounds, White and Hispanic. There was no Black or American Indian teacher ethnicity represented in the sample. I attributed this to the larger number of White teachers (92%) reported on Long Island. On Long

Island, nearly two-thirds of its schools have no Black teachers, and more than 2 out of 5 have no Latino teachers. Only 4% of the teachers are Hispanic, 3% are African American, and 1% are Asian (LIHERALD.com, 2017).

The number of participants that completed the interviews also limited this study. I used only 19 teachers' data from the survey after discarding incomplete responses, and only five teachers participated in focus group interviews. This low number of participants could be due to the nature of the study, which could have made teacher participants uncomfortable as it sheds light on what they might not be doing for their MLs. Because the sample size limited the generalizable potential of this study, I recommend that future researchers consider longer recruitment times, ensuring teacher anonymity, and educating teachers more about the outcome possibilities of the study, which were to enrich professional development to more targeted CR-S practices to support them better.

There is potential bias in self-reported data, including the risks of selective memory, telescoping, attribution, and exaggeration. I found these limitations important to consider as part of the study's limitations. When participants provided responses to the questionnaire or in the interviews, they may have exaggerated their answers, giving a different recollection of the events than what actually occurred. They might also have telescoped certain periods of time and based some responses on their judgment or attributed behaviors based on their interpretations.

The timing of the study could have presented as another limitation, I only conducted the study during a specific period which may not be representative of the entire problem. I conducted this study at the start of the second semester of the school year. Therefore, it may not reflect the complete picture of a student's academic performance as it might not consider their progress or struggles during the first semester. Additionally, this data may not capture the student's overall

abilities, potential, or interest in different subjects. Moreover, it may not account for any significant life events or challenges the student may have faced during the second semester.

The social validity and replication bias on the participants' part, both teachers and students, could have undermined the study's results. When completing the survey, the participants could have responded in a way they believed I, as the researcher, would want them to respond rather than indicate the answers as true to who they are and what they believe (Beaudry & Miller, 2016).

Another limitation might be Hawthorne effect, also known as the observer effect. It refers to the altered behavior of study participants when they know they are under observation. This can limit the accuracy of research results as participants may change their behavior in ways that skew the data. Additionally, researchers may also unknowingly influence participant behavior through their actions. As a result, ensuring anonymity and minimizing the researcher's presence is important to consider when conducting limited research.

Researcher Bias

As the researcher, I may also have brought limitations to the study design, being a teacher of MLs and a multilingual learner for 16 years. This could have caused a potential bias in the analysis and interpretation of the results as the MLs describe a CR-S classroom and a bias toward the teachers' responses. I addressed this through the clear and concise formation of the questionnaire and the questions' strong alignment with the CR-S framework. I, along with my dissertation chair, investigated and discussed a comparison between the perceptions discovered through the questionnaires and the focus group. The final analysis compared multilingual students' perceptions and their teachers' perceptions of strategies and implementation techniques of the CR-S framework. Unconscious bias might have impacted the interpretation of data and

findings, including potential negative biases in the description of the problem. If this bias is identified, it is important to acknowledge it in the study results. The researcher remained vigilant throughout the study to identify and address any additional issues.

Implications

This study generated several implications that could inform practice, policy, and research. The goal of this analysis was to examine and understand both MLs and mainstream teachers on their perceptions regarding the CR-S framework approaches in a mainstream classroom. The quantitative data examined the differences in perceptions between MLs and teachers and reported intricately analyzed and exciting findings. The quantitative data were grouped into the four core principles of the CR-S framework and they also examined each question within each part of the survey to further understand where the differences lay. The findings show differences in the perceptions of MLs and their teachers regarding CR-S practices in the classroom. Additionally, the data discovered a need to focus on preparing teachers with more strategies and techniques through professional development and their pre-service education on CR-S practices for MLs. The quantitative results delivered a more in-depth understanding. Moreover, it allowed for more comprehensive conclusions about specific aspects of the CR-S principles utilized in current classrooms by general education teachers. The findings of this study can provide insight into CR-S practices in preparing general education teachers with strategies and techniques to implement into their lessons and classroom culture.

Practice

The study results show the impact a teacher can have on MLs and their learning. Through the mixed-methods approach, it was evident of a significant need to focus on the training and professional development of general education teachers with MLs on their rosters. As an

education team, all stakeholders must do a better job of ensuring our teachers are equipped with tools, strategies, and approaches to support MLs in the classroom. There needs to be a constant focus on providing feedback and reflection opportunities for teachers throughout the school year.

It is important for learners to feel their teachers are supporting and providing them with specific support that will individually help them achieve in their learning. I propose to provide bi-weekly professional development to general education teachers who teach MLs. This professional development should provide real-world examples and best practices, such as the Universal Design for Learning (UDL) (Rogers-Shaw et al., 2018) framework, for educators to ensure they provide the appropriate support to the ML population. The UDL framework is a valuable tool for teachers who teach MLs since its design addresses the learning needs of all students, including those who speak languages other than English. It provides a flexible approach to teaching and learning that recognizes the diverse needs of students and provides a range of options for learning. With UDL, teachers can offer multiple ways for students to participate in the learning process, access information, and demonstrate their knowledge. This approach helps to create a more inclusive and equitable learning environment that supports the success of MLs. Using UDL principles, teachers can ensure that all students have access to high-quality education that meets their unique needs and abilities. This framework supports CR-S strategies to help create culturally responsive teachers.

In the study by Villegas and Lucas (2002), they identified six key traits that define a culturally responsive teacher. First, such a teacher has a socio-cultural consciousness and recognizes the existence of multiple perspectives on reality. Second, they understand their students' diverse backgrounds and perspectives of their students and utilize various resources for

learning to address these differences. Third, they view themselves as responsible for promoting educational change that serves the needs of all students.

Furthermore, a culturally responsive teacher understands how students construct knowledge and can facilitate this process. They also have knowledge of their students' lives and experiences. Finally, such a teacher uses this knowledge to design instruction that builds on their students' existing understanding while challenging them to extend their knowledge and skills. These traits are essential to effective teaching, particularly for students from linguistically diverse backgrounds, and enable the curriculum to be accessible to all.

Policy

Many studies discuss the importance of CR-S principles (Gay, 2002; Ladson-Billings, 1995; Paris, 2012). This study confirms and expands the understanding of successful CR-S strategies and their role in student achievement in the classroom. During my career in public education, I witnessed general education teachers, who teach MLs, struggle with reaching and connecting with their learners to be successful in the course. Therefore, I recommend professional development ML training focusing on the guidelines of CR Part 154 to be a mandatory part of general education teachers' preparation throughout the school year. Teachers should be required to attend such professional development.

CR Part 154's educational guidelines help support teachers who work with MLs offering educators a framework to follow when designing curriculum, choosing instructional materials, and providing language support for students with diverse linguistic backgrounds. CR Part 154 emphasizes providing equal access to education and ensuring that all students are held to high standards of academic achievement regardless of their language proficiency. It also stresses the

importance of acknowledging and valuing the cultural and linguistic diversity within the classroom. Teachers who follow the guidelines provided by CR Part 154 can feel confident that they are meeting the unique needs of their MLs and setting them up for success in the classroom and beyond.

Research

As I was conducting and analyzing the data in this study, I saw and considered several ideas for further research. There was a low representation of varied teacher ethnicity in the study and no representation of non-binary gender teachers. Given that the sample size could have been larger, involving more participating high schools would have allowed for additional focus groups and survey responses, which might have generated more diverse demographics.

Additionally, conducting a study to observe the long-term effects of CR-S strategies on MLs and their teachers' perceptions can provide insight into the sustainability of the approach and the effectiveness and sustainability of the CR-S approaches for MLs and their teachers. The study could also involve tracking the perceptions and practices of their teachers. Researchers would be able to observe the long-term effects of this strategy on their academic performance, language development, and overall well-being. They can track changes over time and assess whether any improvements are sustainable over several years. Additionally, researchers can identify factors that contribute to the sustainability of the CR-S approach, such as ongoing training and support. They can also identify challenges that may arise over time, such as changes in curriculum or policies, and assess how this impact the effectiveness of the approach.

Last, a recommendation for future research would be to investigate the impact of staff development and training programs on teachers' implementation of CR-S strategies, which can identify the necessary support and resources required to implement the strategies effectively.

Conclusion

To conclude, this study aimed to explore the perceptions of MLs and their teachers in mainstream classrooms as it pertains to the CR-S framework practices. The shifts necessary to teach learners of linguistic and diverse backgrounds are evident and needed more than ever as the shift in demographics continues to increase. Understanding teachers' and MLs' perceptions is important when attempting to promote change in educational settings. Teachers with favorable attitudes toward culturally responsive practices can make a greater contribution toward the academic achievement of MLs.

By highlighting that both students' and teachers' perceptions were largely aligned, the qualitative results added additional insight to the quantitative findings. The integrative results also pinpointed specific areas within the CR-S framework that require greater attention and focus. Additionally, they emphasized the importance of providing targeted professional development opportunities for general education teachers with multilingual students in their mainstream classes. However, it is critical to note that the limited sample size of the interview phase prevented the qualitative findings from fully validating the quantitative results. Nonetheless, the qualitative data generally corroborated the quantitative findings.

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Appendix A

Student CISSA SURVEY

Thank you for your participation. Below, you will see two sets of questions. The first set are demographics questions. The second set of questions pertain to teaching practices by teachers in any of your mainstream classes. Please respond to each question with the best of your ability.

Demographic Questions:

1. What is your gender?
   Female
   Male
   Other

2. What is your ethnicity?
   African American/ Black
   American Indian or Alaskan Native
   Hispanic/ Latino
   Asian/ Pacific Islander
   White, non-Hispanic
   Multiracial
   Other

3. How many years have you been a student in this school? _____

4. What is your home language? _____

5. How many other languages do you speak? _____

6. What is your current overall GPA in school? _____

Survey for CRS Framework

Part 1: Building Relationships/ Welcoming and affirming environment.

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer

1	My teachers call me by my name and use correct pronunciation.						
2	My teachers are interested in my life and experiences.						
3	My teachers asks me to share my stories about life.						
4	My teachers respect me.						
5	My teachers make me feel like I am part of the class.						
6	My teachers help me feel safe and anxiety-free in my classrooms.						
7	Students respect each other and value the ideas and opinions of their classmates.						
8	My teachers help me feel comfortable and ready to participate in my classes.						
9	My teachers value my culture and speak about my culture in positive ways.						
10	My teachers encourage my classmates and I to work together and complete work.						
11	My teachers communicate with my family regularly.						
12	My teachers connect with my family during school and community events.						
13	My teachers communicate with my family in positive ways and have built friendly relationships with them.						
14	My teachers check in with me to make sure I am ok as a person. Not just my academics.						
15	I see a reflection of my culture in the classroom, and it makes me feel good.						
16	My teacher encourages me to take responsibility for learning and my classroom.						
17	My teachers encourage me to respectfully engage in						

	conversations with my classmates even if we do not have the same ideas and opinions.						
18	My teachers encourage me to build friendships and learning partnerships with my classmates.						

CRS Part 2: High expectations and rigorous instruction

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	I am learning the same information that my classmates are learning.						
2	I feel my teachers challenge me every day to be successful and feel positive about learning in classes.						
3	My teachers teach me difficult things that makes me think.						
4	My teachers give me time to understand what I am learning and discuss it with my classmates or write about it.						
5	I am able to learn in many ways including how I learn best.						
6	I understand and visualize what success means to me in my classes.						
7	I use strategies my teachers teach me to navigate my learning and success.						
8	My teachers help me feel comfortable taking risks when I am learning and make sure I am not afraid to try new things.						
9	My teachers encourage me to try more than once to accomplish a goal/ task if I						

	do not accomplish it the first time I try.						
10	My teachers want me to learn from my mistakes.						
11	My teachers want me to use critical thinking skills when engaging in learning.						
12	My classmates and I empower one another to engage in learning.						
13	My classmates and I discuss our viewpoints and the viewpoints of others.						
14	My teachers want me to feel good about myself.						
15	My teachers encourage my classmates and I to respect each other and value each other's ideas and opinions.						
16	My teachers want my classmates and I to collaborate and hold each other accountable for doing good in class.						
17	My teachers encourage me to work hard and push myself even if I am having a hard time.						
18	My teachers help me feel proud about my work and want me to focus on continuous improvement.						
19	I receive detailed feedback from my teachers with suggestions about how I can improve.						

CRS Part 3: Inclusive Curriculum and Assessment

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	I feel my teachers challenge me every day to be						

	successful and feel positive about learning in classes.						
2	My teachers allow me to culture and linguistic ability to navigate learning.						
3	My teachers encourage me to share my experiences and stories regularly in my classes.						
4	The books and materials reflect my culture and background.						
5	I see a reflection of myself in my classroom.						
6	The materials my teachers use reflect different perspectives and cultures.						
7	My teachers encourage me to use my native language in the classroom to help me learn.						
8	My teachers allow me to work with my classmates to help me learn.						
9	My teachers encourage me to care about my learning.						
10	My teachers give us projects and many other ways to learn.						
11	My teachers help me learn English and feel like my learning is meaningful.						
12	My teachers encourage me to set learning goals.						
13	My teachers use tests and assessments that reflects my culture and background.						
14	I demonstrate learning through a variety of assessments.						
15	My teacher uses my tests and assessments to help me learn and make sense of my mistakes.						
16	My teachers encourage me to assess my learning based.						

18	I participate in learning outside my classrooms.						

CRS Part 4: Ongoing Professional Learning

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	My teachers encourage me to learn new tools and strategies to help me learn.						
2	My teachers try new ideas in class.						
3	My teachers work together to make learning better.						
4	The building principal and assistant principal support my teachers and help them in the classroom.						
5	My teachers ask us how we think they are teaching and we talk about it.						
6	My teachers challenge biases in my class and school.						
7	My teachers encourage my classmates and I to support each other and accept our differences.						

C. McDermott Goldman, 2022

Do you want to take part in the second phase of the study, which will include a participation in a small focus group where you will have an opportunity to elaborate on some of the questions included in this survey?

Yes____ No _____

If yes, click on the link below to enter your contact information. Your participation in the second part of the study will also make you eligible for a $20 gift card raffle.

Focus Group Sign-ups Link via Google Forms: https://forms.gle/NeXvMJ3TSNeTHcTb6

Appendix B

Teacher CISSA SURVEY

Thank you for your participation. Below, you will see two sets of questions. The first set are demographics questions. The second set of questions pertain to your teaching practices. Please respond to each question with the best of your ability.

Demographic Questions:

7. What is your gender?
   Female
   Male
   Other

8. What is your ethnicity?
   African American/ Black
   American Indian or Alaskan Native
   Hispanic/ Latino
   Asian/ Pacific Islander
   White, non-Hispanic
   Multiracial
   Other

9. How many years have you been a teacher in this school? _____

10. What teaching certifications do you hold? _____

11. How many other languages do you speak? _____

Survey for CRS Framework

Part 1: Building Relationships/ Welcoming and affirming environment

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	I refer to students by name and use correct pronunciation.						

2	I am interested in student's lives and experiences.						
3	I take time to intentionally listen to my students' stories.						
4	I think it is important and I take time to build relationships with all my students including those that are culturally and linguistically diverse.						
5	The classroom is a place where my students feel represented and respected.						
6	Each student feels like they are part of the class.						
7	The classroom environment is safe and anxiety-free.						
8	Students respect each other and value the ideas and opinions of their peers.						
9	Culturally and linguistically diverse students feel comfortable and ready to participate in class.						
10	I value and affirm students' differences and backgrounds and use them to inform my teaching practices.						
11	When interacting with students in the classroom, I use culturally sensitive language and techniques.						
12	Students know how to work together effectively.						
13	I communicate with my students' families regularly.						
14	I connect with my student's families through school-wide and community events.						
15	I engage in positive dialogue with my students' families and make connections with them.						

16	Students mental health and well-being are addressed and supported regularly.						
17	Positive language and images in the classroom affirm various cultures of students in your lessons.						
18	Students take ownership of their learning and their environment.						
19	Student know how to negotiate and respectfully engage in dialogue which may or may not reflect their own ideas and opinions.						
20	Students openly build friendships and learning partnerships with their peers.						

CRS Part 2: High expectations and rigorous instruction

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	Students are exposed to and learning grade-level academic content.						
2	Students are challenged daily to achieve success and feel positive about learning.						
3	Students have many opportunities to engage and grapple with new and difficult information.						
4	Students have time to comprehend expectations by discussing them with peers and journaling about it.						
5	Students learn through multi-modalities to address their learning preferences.						

6	Students have opportunities to understand and visualize what success means to them in their own environment and culture.						
7	Students learn and use strategies to navigate their own learning and success.						
8	Students feel comfortable taking risks in learning and are not afraid to try new things.						
9	Students try more than once to accomplish a goal/ task.						
10	Students are aware of the learning process and learn from their mistakes.						
11	Students use critical thinking skills when engaging in learning.						
12	Students empower one another to engage in learning.						
13	Students openly discuss their viewpoints and the viewpoints of others.						
14	Students have a positive self-image.						
15	Students respect each other and value the ideas and opinions of their peers.						
16	Students collaborate and hold each other accountable for success.						
17	Students persevere in times of difficulty and challenge to push themselves forward.						
18	Students take pride in their work and focus on continuous improvement.						
19	You provide students with detailed feedback and create a growth mindset.						

CRS Part 3: Inclusive Curriculum and Assessment

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	Students are challenged daily to achieve success and feel positive about learning.						
2	Students use their own culture and linguistic ability to navigate learning.						
3	Students are encouraged to share their experiences and stories regularly.						
4	Curricular materials are reflective of student's cultural and linguistic backgrounds.						
5	Students see a reflection of themselves in the classroom through materials, lessons, books, etc.						
6	Class materials reflect different perspectives and cultural identities (anchor charts, texts, books, etc.).						
7	Student's use their native language in the classroom to make sense of their learning.						
8	Students are given opportunities to co-construct their learning with peers.						
9	Students invest in and care about their own learning.						
10	Students are provided with a variety access points to learning (project-based, interactive, etc.).						
11	Students engage in meaningful and authentic learning opportunities to build language competence.						
12	Students are encouraged to set their own learning targets and goals.						

13	Assessments are reflective of student's cultural and linguistic backgrounds.						
14	Students demonstrate learning through a variety of informal assessments.						
15	A variety Assessments are used to inform instruction of formal and informal assessments are used.						
16							
17	Students are encouraged to assess their own learning based on specific criteria.						
18	You consistently review lessons and curriculum to address learning gaps.						
	Students participate in service learning opportunities that go beyond the classroom walls.						

CRS Part 4: Ongoing Professional Learning

	Reflection	1	2	3	4	5	NA
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Choose not to answer
1	I feel encouraged to learn new tools and strategies to support my students.						
2	I have many opportunities to continue learning and strengthen my teaching to meet the diverse needs of my students.						
3	I feel empowered to use reflective practices in teaching and learning.						
4	I seek out opportunities to learn about my own biases and how I can make learning more inclusive for all students.						

5	I work with colleagues to reexamine the curriculum and our teaching practices.						
6	I feel supported by leadership to seek out and participate in opportunities to strengthen learning outcomes for my students.						
7	I seek out support to help me use students' assets to leverage academic achievement.						
8	I feel comfortable empowering students to guide their learning and find success.						
9	I take time to reflect on and improve my instruction for better learning outcomes.						
10	You feel comfortable challenging biases in your class and school.						
11	You seek out opportunities to support your students in learning about others and accepting differences among peers and teachers.						

C. McDermott Goldman, 2021

Do you want to take part in the second phase of the study, which will include a participation in a small focus group where you will have an opportunity to elaborate on some of the questions included in this survey?

Yes____ No _____

If yes, click on the link below to enter your contact information. Your participation in the second part of the study will also make you eligible for a $20 gift card raffle.

Focus Group Sign-ups Link via Google Forms: https://forms.gle/t9t67Y1sb5w1UULh9

Appendix C

Focus Group Questions - STUDENTS

Title:
Multilingual Learners' and Their Teachers' Perceptions of Culturally Responsive-Sustaining Practices in the Mainstream Classrooms: A Mixed-method Approach.

For all respondents:
The study will be explained to the participant by the researcher, and any questions that the participants have in relation to the interview process will be answered. The researcher will explain to the participants that the interview is completely confidential and that all of the information gathered during the interview will be used for educational research purposes only. The researcher will inform the participants that interview will take about 30 minutes of their time. The participant will give verbal agreement to contribute to the study and be audiotaped.

Brief Project Description:
The purpose of this qualitative study will be to explore multilingual learners' and teachers' perceptions of culturally responsive-sustaining practices in the mainstream classroom. Specifically, this investigation will examine the perceptions of culturally responsive-sustaining practices that contribute to a multilingual learner's learning environment.

Introduction

- Please state your name and how long you have been in this school.

Culture & Knowledge

1. How do your teachers show they value your culture and speak about your culture positively in class?
    a. Can you give me an example of this?
    b. Explain how your teacher does this through speaking.
    c. How does your teacher encourage you to use your cultural background, prior knowledge, and experiences to actively participate in learning both language and content?

Integration & Connection

2. Explain how or when you see a reflection of your culture in the classroom.
    a. What activities is your teacher doing when you see this reflection?

Strategies & Instruction

3. What strategies do your teachers use to encourage you to take responsibility for your own learning ?
    a. Describe your classroom culture. What does your teacher say about it?
    b. Do you feel comfortable with your peers in the class?
    c. In what ways do you interact with your peers in the classroom?

Support & Collaboration

4. Explain the strategies your teachers use to support your learning and success.
    a. How does your teacher help you navigate?

Assessment & Product

5. What critical thinking skills does your teacher teach use to engage the class in learning?
    a. How does your teacher empower you and each other to engage in learning?

Appendix D

Focus Group Questions - TEACHERS

Title:
Multilingual Learners' and Their Teachers' Perceptions of Culturally Responsive-Sustaining Practices in the Mainstream Classrooms: A Mixed-method Approach.

For all respondents:
The study will be explained to the participant by the researcher, and any questions that the participants has in relation to the interview process will be answered. The researcher will explain to the participants that the interview is completely confidential and that all of the information gathered during the interview will be used for educational research purposes only. The researcher will inform the participants that interview will take about 30 minutes of their time. The participant will give verbal agreement to contribute to the study and be audiotaped.

Brief Project Description:
The purpose of this qualitative study will be to explore multilingual learners' and teachers' perceptions of culturally responsive-sustaining practices in the mainstream classroom. Specifically, this investigation will examine the perceptions of culturally responsive-sustaining practices that contribute to a multilingual learner's learning environment.

Introduction

- Please state your name, current position, years teaching, and years associated with the school district.

Culture & Knowledge

1. How do you make content explicit through MLs' cultural backgrounds, prior knowledge, and experiences?
    a. How do you encourage MLs to use their cultural backgrounds, prior knowledge, and experiences to be active participants in learning both language and content?

Integration & Connection

2. How do you do to bridge content and language together for all students?
    a. What strategies do you use to support academic language and content learning in your classroom for MLs?
    b. Provide an example or explanation of how you encourage MLs to use higher-order thinking and reasoning skills to support their learning.

Strategies & Instruction

3. Describe the types of strategies used to help MLs make sense of the content and language.

Support & Collaboration

4. How do you support peer-to-peer learning and interaction?
    a. Explain how you encourage MLs to co-construct knowledge with their peers.

Assessment & Product

5. How do you monitor MLs' growth on a regular basis?
    a. Explain how you encourage MLs to reflect on their own learning.
    b. Describe the methods you use to reflect on your own teaching and the learning of MLs.

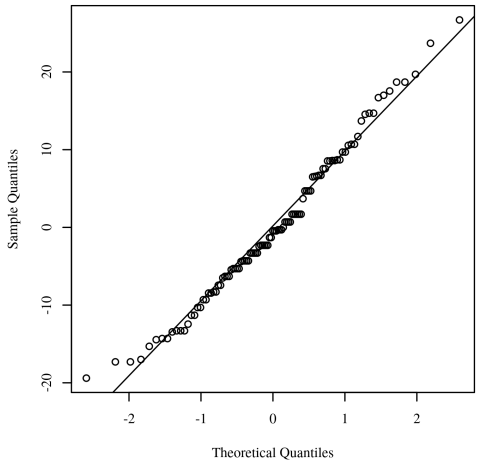
Appendix E

Analysis of Variance (ANOVA) for Students for Part 1: Building Relationships/Welcoming and Affirming Environment and Ethnicity

Normality. The assumption of normality was assessed by plotting the quantiles of the model residuals against the quantiles of a Chi-square distribution, also called a Q-Q scatterplot (DeCarlo, 1997). For the assumption of normality to be met, the quantiles of the residuals must not strongly deviate from the theoretical quantiles. Strong deviations could indicate that the parameter estimates are unreliable. Figure 17 presents a Q-Q scatterplot of model residuals.

Figure 17

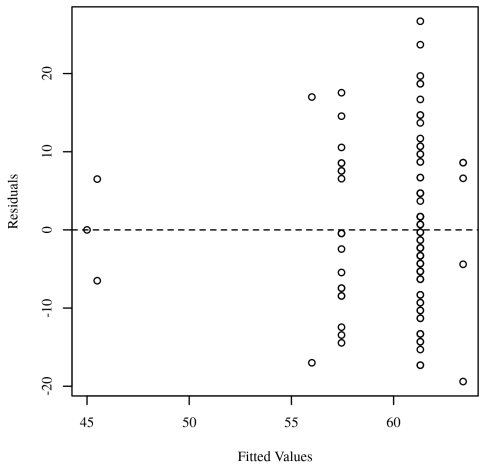
Q-Q scatterplot for normality of the residuals for the regression model.



Homoscedasticity was evaluated by plotting the residuals against the predicted values (Bates et al., 2014; Field, 2017; Osborne & Walters, 2002). The assumption of homoscedasticity is met if the points appear randomly distributed with a mean of zero and no apparent curvature. Figure 18 presents a scatterplot of predicted values and model residuals.

Figure 18

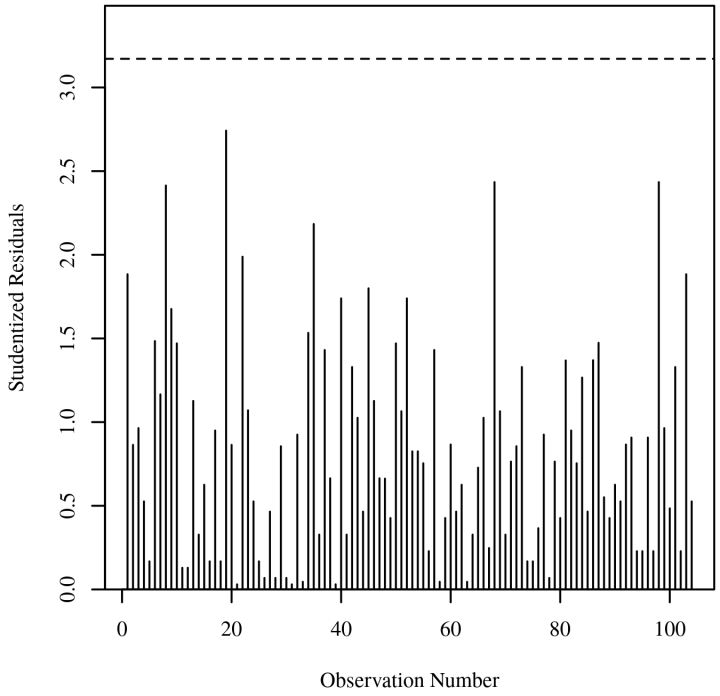
Residuals scatterplot testing homoscedasticity



To identify influential points, Studentized residuals were calculated, and the absolute values were plotted against the observation numbers (Field, 2017; Pituch & Stevens, 2015). Studentized residuals are calculated by dividing the model residuals by the estimated residual standard deviation. An observation with a Studentized residual greater than 3.17 in absolute value, the 0.999 quantile of a *t* distribution with 104 degrees of freedom, was considered to have significant influence on the results of the model. Figure 19 presents the Studentized residuals plot of the observations. Observation numbers are specified next to each point with a Studentized residual greater than 3.17.

Figure 19

Studentized residuals plot for outlier detection

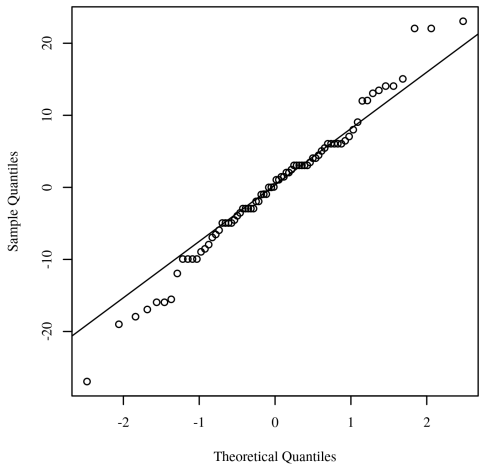


Analysis of Variance (ANOVA) for Students for Part 2: High Expectations and Rigorous Instruction and Ethnicity

Normality. The assumption of normality was assessed by plotting the quantiles of the model residuals against the quantiles of a Chi-square distribution, also called a Q-Q scatterplot (DeCarlo, 1997). For the assumption of normality to be met, the quantiles of the residuals must not strongly deviate from the theoretical quantiles. Strong deviations could indicate that the parameter estimates are unreliable. Figure 20 presents a Q-Q scatterplot of model residuals.

Figure 20

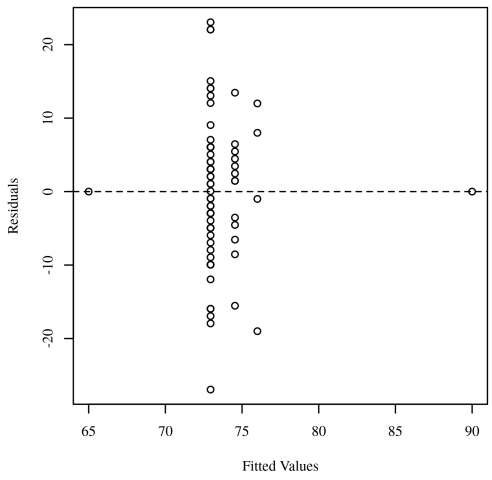
Q-Q scatterplot for normality of the residuals for the regression model.



Homoscedasticity. Homoscedasticity was evaluated by plotting the residuals against the predicted values (Bates et al., 2014; Field, 2017; Osborne & Walters, 2002). The assumption of homoscedasticity is met if the points appear randomly distributed with a mean of zero and no apparent curvature. Figure 21 presents a scatterplot of predicted values and model residuals.

Figure 21

Residuals scatterplot testing homoscedasticity

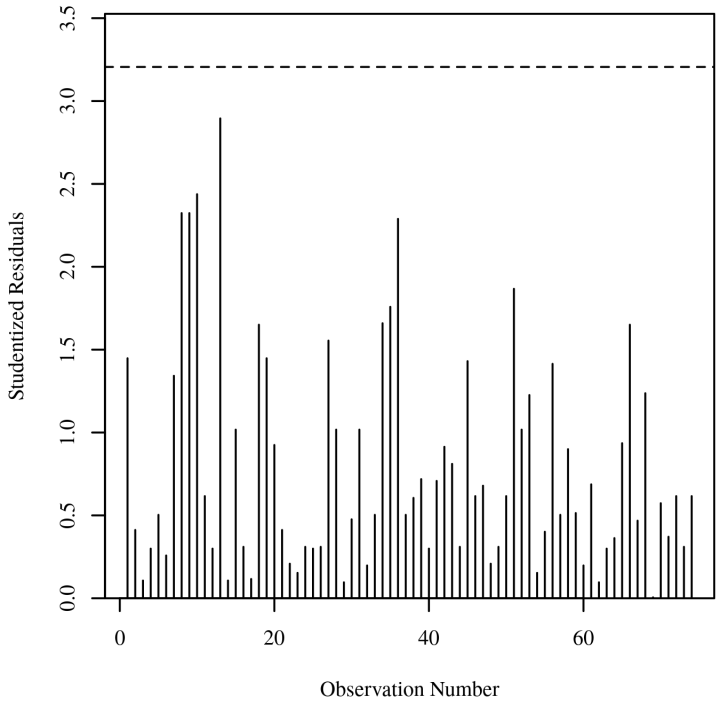


Outliers. To identify influential points, Studentized residuals were calculated, and the absolute values were plotted against the observation numbers (Field, 2017; Pituch & Stevens, 2015). Studentized residuals are calculated by dividing the model residuals by the estimated residual

standard deviation. An observation with a Studentized residual greater than 3.20 in absolute value, the 0.999 quantile of a *t* distribution with 75 degrees of freedom, was considered to have significant influence on the results of the model. Figure 22 presents the Studentized residuals plot of the observations. Observation numbers are specified next to each point with a Studentized residual greater than 3.20.

Figure 22

Studentized residuals plot for outlier detection



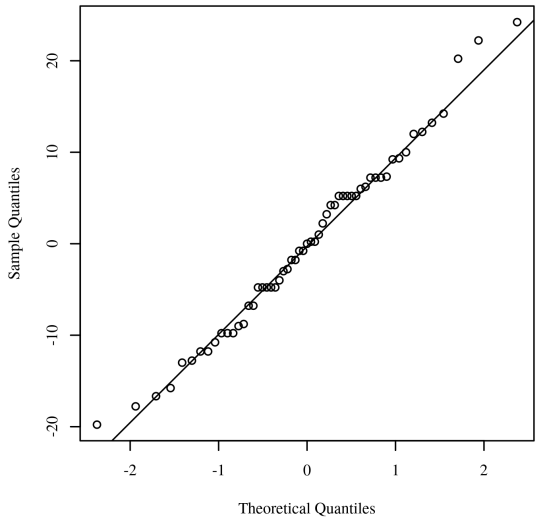
Analysis of Variance (ANOVA) for Students for Part 3: Inclusive Curriculum and Assessment and Ethnicity

Normality. The assumption of normality was assessed by plotting the quantiles of the model residuals against the quantiles of a Chi-square distribution, also called a Q-Q scatterplot (DeCarlo, 1997). For the assumption of normality to be met, the quantiles of the residuals must

not strongly deviate from the theoretical quantiles. Strong deviations could indicate that the parameter estimates are unreliable. Figure 23 presents a Q-Q scatterplot of model residuals.

Figure 23

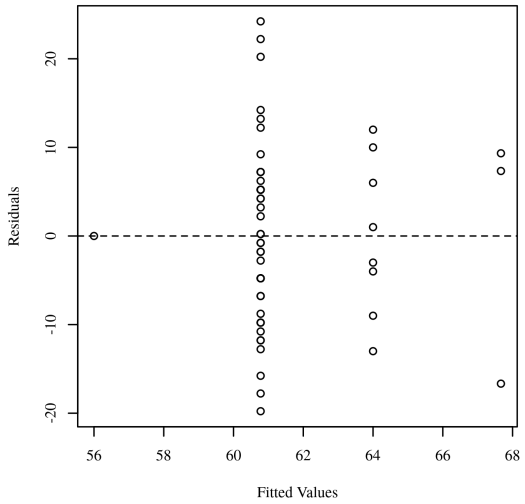
Q-Q scatterplot for normality of the residuals for the regression model.



Homoscedasticity. Homoscedasticity was evaluated by plotting the residuals against the predicted values (Bates et al., 2014; Field, 2017; Osborne & Walters, 2002). The assumption of homoscedasticity is met if the points appear randomly distributed with a mean of zero and no apparent curvature. Figure 24 presents a scatterplot of predicted values and model residuals.

Figure 24

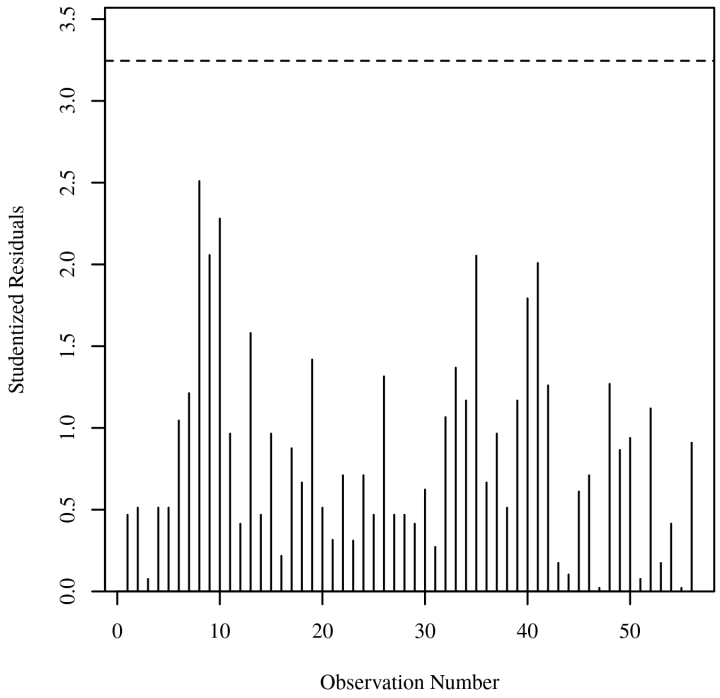
Residuals scatterplot testing homoscedasticity



***Outliers*.** To identify influential points, Studentized residuals were calculated, and the absolute values were plotted against the observation numbers (Field, 2017; Pituch & Stevens, 2015). Studentized residuals are calculated by dividing the model residuals by the estimated residual standard deviation. An observation with a Studentized residual greater than 3.24 in absolute value, the 0.999 quantile of a *t* distribution with 56 degrees of freedom, was considered to have significant influence on the results of the model. Figure 25 presents the Studentized residuals plot of the observations. Observation numbers are specified next to each point with a Studentized residual greater than 3.24.

Figure 25

Studentized residuals plot for outlier detection

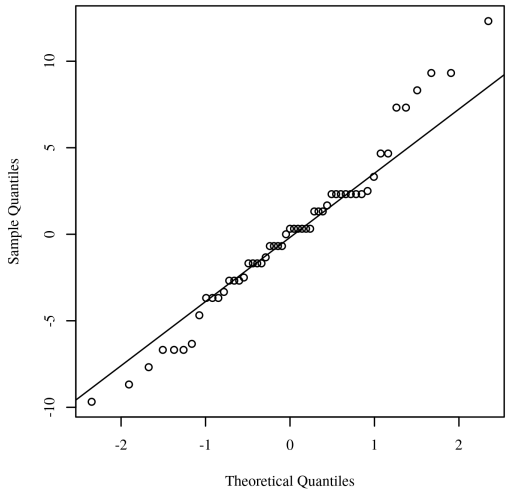


Analysis of Variance (ANOVA) for Students for Part 4: Ongoing professional Learning and Ethnicity

Normality. The assumption of normality was assessed by plotting the quantiles of the model residuals against the quantiles of a Chi-square distribution, also called a Q-Q scatterplot (DeCarlo, 1997). For the assumption of normality to be met, the quantiles of the residuals must not strongly deviate from the theoretical quantiles. Strong deviations could indicate that the parameter estimates are unreliable. Figure 26 presents a Q-Q scatterplot of model residuals.

Figure 26

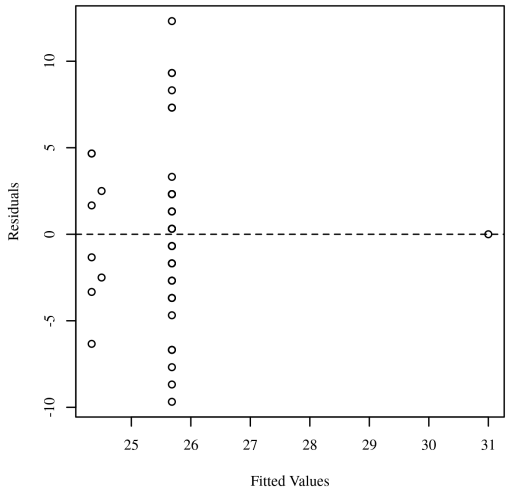
Q-Q scatterplot for normality of the residuals for the regression model.



Homoscedasticity. Homoscedasticity was evaluated by plotting the residuals against the predicted values (Bates et al., 2014; Field, 2017; Osborne & Walters, 2002). The assumption of homoscedasticity is met if the points appear randomly distributed with a mean of zero and no apparent curvature. Figure 27 presents a scatterplot of predicted values and model residuals.

Figure 27

Residuals scatterplot testing homoscedasticity

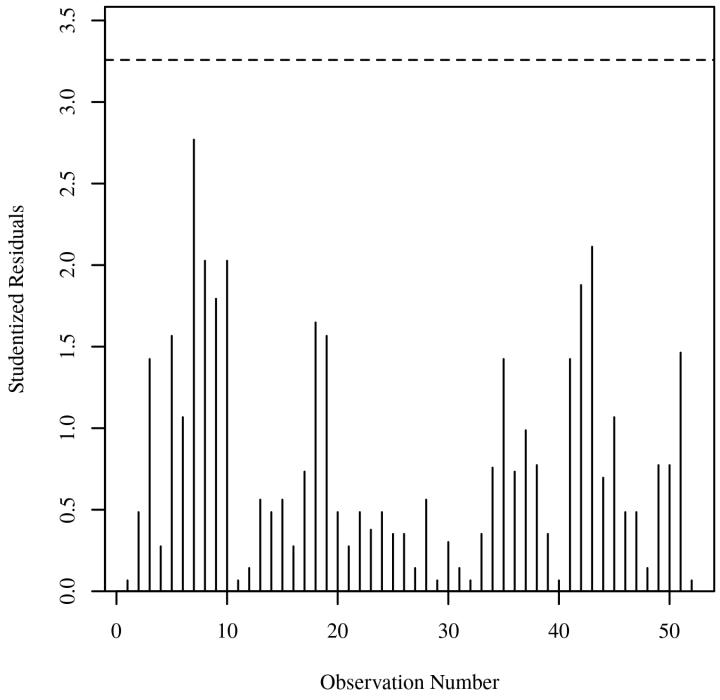


Outliers. To identify influential points, Studentized residuals were calculated and the absolute values were plotted against the observation numbers (Field, 2017; Pituch & Stevens, 2015). Studentized residuals are calculated by dividing the model residuals by the estimated residual standard deviation. An observation with a Studentized residual greater than 3.25 in

absolute value, the 0.999 quantile of a *t* distribution with 52 degrees of freedom, was considered to have significant influence on the results of the model. Figure 28 presents the Studentized residuals plot of the observations. Observation numbers are specified next to each point with a Studentized residual greater than 3.25.

Figure 28

Studentized residuals plot for outlier detection



Appendix F

MOLLOY UNIVERSITY

1000 Hempstead Ave., PO Box 5002, Rockville Center, NY 11571-5002
www.molloy.edu

Patricia A. Eckardt, PhD, RN, FAAN
Chair, Molloy University Institutional Review Board
Professor, Barbara H. Hagan School of Nursing and Health Sciences
E: peckardt@molloy.edu
T: 516.323.3711

DATE:	December 13, 2022
TO:	Nicki Gonias
FROM:	Molloy University IRB
PROJECT TITLE:	[1839651-1] Multilingual Learners' and Their Teachers' Perceptions of Culturally Responsive-Sustaining Practices in the Mainstream Classrooms: A Mixed-method Approach.
REFERENCE #:	
SUBMISSION TYPE:	New Project
ACTION:	Determination of Expedited Status NMTMR
DECISION DATE:	December 13, 2022
EXPIRATION DATE:	December 12, 2023
REVIEW CATEGORY:	Expedited category # 7

Thank you for your submission of New Project materials for this project. The Molloy University IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. A change in the research may change the project from EXPEDITED NO MORE THAN MINIMAL RISK status and requires prior communication with the IRB. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others (UPIRSOs) and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project has been determined to be a MINIMAL RISK project. Though this protocol does not require annual IRB review, the IRB requires an annual report of your protocol (Expedited and Exempt Research Protocol Annual Report Form) which is available on the IRB webpage.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Patricia Eckardt at 516-323-3711 or peckardt@molloy.edu. Please include your project title and reference number in all correspondence with this committee.

Sincerely,

Patricia Eckardt, Ph.D., RN, FAAN
Chair, Molloy University Institutional Review Board

This letter has been issued in accordance with all applicable regulations, and a copy is retained within Molloy University IRB's records.