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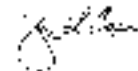
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Doctor of Education in Organizational Leadership



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March 12, 2019

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Culturally Responsive Training for Secondary English Language Teachers

A dissertation prospectus submitted in partial satisfaction
of the requirements for the degree of
Doctor of Education in Organizational Leadership

by

Tina McCorkle

March, 2019

Dedication

To my mom and dad, I could not have done this without your belief in me. Your encouragement has inspired me to pursue and complete this research. Thank you for all of your support along the way. I am forever grateful to you both for helping to give me the life I love today.

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Abstract

In this quantitative study, I investigated the effectiveness of a training intervention program to positively impact secondary teacher attitudes and perceptions of culturally responsive teaching (CRT). The study is relevant in Alvin Independent School District given the demographic shift resulting in an increase in Hispanic students and students learning English as a second language. The purpose of the study was to investigate teacher attitudes and perceptions of CRT to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention. The CRT research from Ladson-Billings (1992) and Gay (2000) supported the foundational elements of the CRT training intervention. Using Ginsberg and Wlodkowski's (2009) motivational framework for CRT, I utilized a survey to measure teacher attitudes and perceptions of CRT. The framework supports the intrinsic motivation to empathize with diverse students, while promoting positive learning outcomes for all. Data from the quasi-experimental design included a pre- and post-survey. Results provided evidence to infer that there was a statistically significant increase in teachers' perception of CRT and attitude toward CRT after participation in a CRT training intervention. Results of this study indicated potential for change for linguistically and culturally diverse student populations given changes in teacher perception of and attitude toward CRT.

Keywords: culturally responsive teaching (CRT), English language learner (ELL), sheltered instruction observation protocol (SIOP), teacher training, cooperative learning, quasi-experimental

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Chapter 1: Introduction

Recent teaching and learning literature advocates for approaches in today's classrooms that are culturally competent, culturally aware, culturally sensitive, and culturally relevant (Aceves & Orosco, 2014; Boyce & Chouinard, 2017; Clausen, 2017; Jiménez et al., 2015). These approaches focus on pedagogy that provides opportunities for all students to engage in meaningful learning experiences, while promoting the academic achievement of diverse student populations. In today's schools, educators recognize the need to address English language learners' (ELLs) academic needs (Turgut, Sahin, & Huerta, 2016). It is not as easy as it sounds, however, as teachers feel uncomfortable with diverse cultural and social norms that may be entirely different from their own (Siwatu, 2011; Webb & Barrera, 2017). Despite the well-documented issues surrounding diversity and teaching (Gay, 2010; Ladson-Billings, 1995), the focus on these issues in secondary education, specifically high school teaching and learning in suburban districts experiencing demographic shifts, has received little attention to revamp teacher preparation programs and training for core teachers in today's high schools.

School districts across the nation and the state are enrolling more ELLs than ever before, and there are significant implications for public schools. The Texas Education Agency (TEA, 2017) reported,

The percentage of students identified as English language learners grew from 15.9 percent in 2006-07 to 18.9 percent in 2016-17, and the percentage of students receiving bilingual or English as a second language instructional services increased from 14.8 percent to 18.8 percent. (p. ix)

Similarly, Sanchez (2017) noted that "about 1 out of every 10 public school students in the United States right now is learning to speak English" (para. 1). Students are entering public schools in Texas speaking a variety of first languages, including Arabic, Mandarin, Tagalog,

Spanish, and Vietnamese, among many others (TEA, 2018a). This study focused on ELLs at the secondary level, specifically high school.

While there are many first languages spoken in public schools, the majority of ELLs in Texas speak Spanish as their first language. The TEA (2018a) reports over one million Spanish-speaking students in public school pre-kindergarten through Grade 12. According to the Pew Hispanic Center, the growth of the Hispanic population is “clearly evident in U.S. schools as Latinos represent 23.9%, nearly one quarter, of overall student enrollment in grades K-12” (Fry & Lopez, 2012, p. 4). This shift is evident in Texas, with the TEA (2017) reporting the Hispanic student population the majority at 52.4%. Spanish-speaking students come to the United States from all around the world, including Mexico, Puerto Rico, Colombia, Costa Rica, Cuba, Guatemala, Honduras, and Panama. Hickman (2016) noted, “Mexicans now account for the greatest share of foreign-born in the current U.S. population” (p. 24).

As student populations in schools continue to become more diverse, the challenges associated with teaching diverse students tends to rise (Khong & Saito, 2014; Madrid, 2011; Rhodes, 2017; Turgut et al., 2016). Approximately 38% of secondary ELLs are born outside of the United States (Sanchez, 2017). As noted by Khong and Saito, often these students are “disadvantaged in terms of their educational attainment and economic status” (p. 212). Additionally, teachers may negatively perceive ELLs with assumptions attributing their achievement gap to a poor work ethic or a lack of parental and family support (Madrid, 2011). Academically, in mainstream classroom settings, ELLs face unique linguistic challenges compared to their native English-speaking peers. Unlike their peers, “ELLs must develop proficiency in academics in the English language they are in the process of acquiring” (Turgut et al., 2016, p. 292). Some students from linguistically diverse backgrounds may also bring

different expectations of how the classroom and teaching should be organized (Bui & Fagan, 2013).

Ladson-Billings (1992) coined the phrase *culturally responsive teaching* (CRT) to explain a “kind of teaching that is designed not merely to fit the school culture to the students’ culture, but also to use students’ culture as the basis for helping students understand themselves and others, structure social interactions, and conceptualize knowledge” (p. 314). CRT uses the learners’ cultural norms and experiences to empower them academically, socially, psychologically, and politically (Ladson-Billings, 1992). Gay (2010) continued to add to the literature of CRT and suggested that educators who practice CRT can have a profound impact on the lives of their students, because they develop different pedagogies to value the educational experiences of their students. Through CRT, students experience a sense of ownership in the classroom and a desire to belong (Miller, Mackiewicz, & Correa, 2017). Bui and Fagan (2013) found that “students can increase their reading comprehension when educators use research-based reading strategies and adapt them to be culturally responsive” (p. 66).

CRT has been researched for decades, yet only pieces of literature exist on the inclusion of such practices in secondary teacher preparation and training programs and the influence of these methods in the classroom to support the academic achievement of diverse learners in suburban school districts. Various classroom studies have found that elementary students improve reading comprehension when teachers incorporate CRT practices (Bui & Fagan, 2013; Miller et al., 2017). Boyce and Chouinard (2017) conducted a recent study investigating CRT approaches to student assessment and evaluation methods to support meaningful learning experiences. Aceves and Orosco (2014) created an “innovation configuration matrix” (p. 6) to help guide teacher preparation by exhaustively investigating studies focused on CRT, including

common themes of CRT, evidenced-based CRT practices, and recommended CRT approaches instruction and assessment methods.

Researchers have frequently studied the impact of CRT in urban settings to help support teachers in closing the achievement gap of linguistically diverse learners in these settings (Cahnmann & Remillard, 2002; Milner, 2010; Ramirez, Jiménez-Silva, Boozer, & Clark, 2016). Considerable attention has been given to students of color in urban school districts with CRT, but little attention has been given to suburban districts experiencing demographic shifts (Gay, 2000; Irvine, 2001; Lopez & Iribarren, 2014; O'Hara & Pritchard, 2008).

With the increased enrollment of ELLs in public schools, CRT methods should be at the forefront of teacher development and in-service development. According to Sanchez (2017), “the shortage of teachers who can work with this population is a big problem in a growing number of states” (para. 20). Joyce and Calhoun (2016) suggested that when teachers learn new skills or methods, they need additional support weaving the approach into curriculum and in planning and daily practices. Without adequate professional development and CRT training, teachers without knowledge of norms and experiences of diverse learners often experience negative attitudes and may be reluctant to work with ELLs (Reeves, 2006; Valdes, 1998, as cited in Khong & Saito, 2014). Additionally, although very well intended, teachers' efforts can sometimes be ineffective because of unconscious personal biases that exist about diverse student populations (Irizarry & Williams, 2013). These personal biases may affect the expectations of student work in the classroom, impact behavioral supports, and have other implications for learning, such as types of evaluation and assessment methods employed and the types of texts used that may present cultural bias.

Because little research exists to understand the relationship between CRT and ELL student academic achievement in suburban secondary schools, this study will provide additional insight to assist teachers in understanding, empathizing with, and supporting ELLs. This study aimed to answer research questions investigating the effectiveness of a CRT training intervention and if participation in the training resulted in a statistically significant difference in teacher attitude toward and perception of CRT and serving ELLs.

This chapter covers the background of the problem, highlighting the achievement gap for ELLs over decades; the purpose of the study; the conceptual framework that guided the study; the research questions; and the definition of terms.

Background of the Problem

Demographic shifts. According to a demographic study completed by the Zachry Group (Potter, 2015), Brazoria County will see an increasing Hispanic population over the next 30 years, which Hickman (2016) attributes to societal phenomena, including migration and racial and ethnic diversity. According to the U.S. Census Bureau (2016b), 30% of Brazoria County residents are of Hispanic origin, compared to just under 18% for the United States.

The number of linguistically diverse students in schools across the country is rapidly increasing. Kim, Hutchinson, and Winsler (2015) reported, “the percentage of individuals in the United States whose first language is something other than English has risen dramatically in recent decades” (p. 236). Public schools must be prepared to educate students from a variety of backgrounds and various languages spoken in the home. Despite over “150 languages spoken by students in U.S. schools, the dominant second language spoken is Spanish” (73%; Kim et al., 2015, p. 236, as cited in Batalova & McHugh, 2010). According the U.S. Census Bureau’s (2016a) data on languages spoken at home, approximately 18% of Brazoria County residents

speak a language other than English. Of these, approximately 11% speak Spanish, 5.5% speak Asian and Pacific Island languages, including Chinese, Tagalog, and Vietnamese, and 2% speak other languages (U.S. Census Bureau, 2016a).

Local impact in Texas. Alvin Independent School District (Alvin ISD) is an accredited district with a *Recognized* rating from TEA (Alvin Independent School District, 2017). Alvin ISD contains 23 campuses and serves students south of Houston, Texas. The district serves over 25,000 Pre-K to Grade 12 students, which makes Alvin ISD the largest school district in Brazoria County (Alvin ISD, 2017). The district is also considered a fast-growth district with numerous community developments. According to a recent demographic study completed by Templeton Demographics, Alvin ISD is projected to enroll 27,000 students by 2019 (Alvin ISD, 2018).

The TEA publishes Texas academic performance reports (TAPR), which compiles

a wide range of information on the performance of students in each school and district in Texas every year. Performance is shown disaggregated by student groups, including ethnicity and socioeconomic status. The reports also provide extensive information on school and district staff, programs, and student demographics. (TEA, 2018d, para. 1)

According to the 2016-2017 District Profile in the Alvin ISD TAPR, 50% of students in Alvin ISD are identified as at risk, and 49% are economically disadvantaged (TEA, 2018d). The district serves 3,993 ELLs, which is 17% of the student population. In Alvin ISD, there are 75 documented first languages other than English, with secondary students predominately speaking Spanish as a native language (TEA, 2018b). The ethnic distribution of students and staff is presented in the Figure 1 and Figure 2.

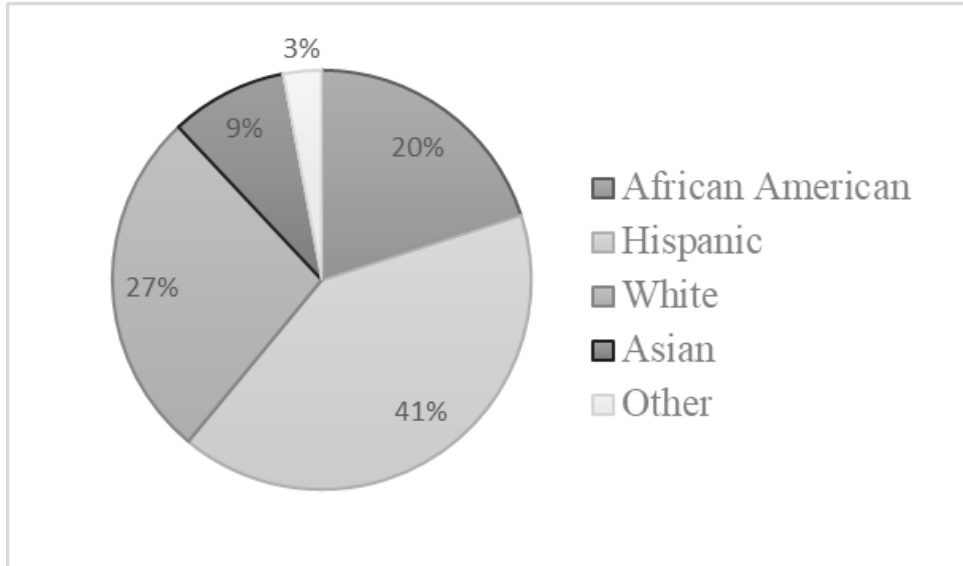


Figure 1. 2016-2017 Alvin ISD student ethnicity ($N = 24,755$).

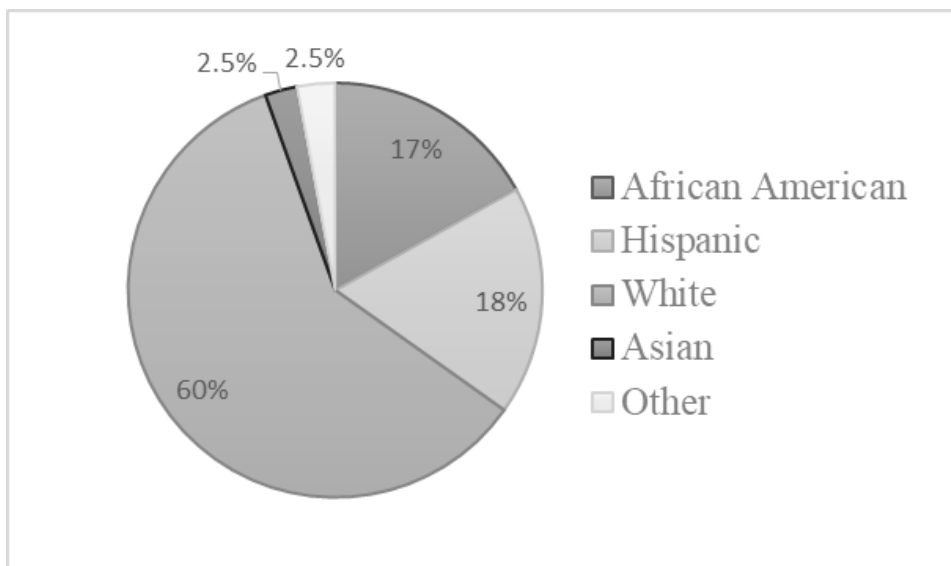


Figure 2. 2016-2017 Alvin ISD teacher ethnicity ($N = 1,632$).

With Hispanic enrollment steadily increasing in districts across Texas, educators will be working with more Hispanic students, which is currently observed locally in Alvin ISD. The gradual shift in student demographics across the state will require educators to become more culturally responsive and to re-examine practices used in addressing challenges for these students, such as language barriers and societal issues. According to Conger (2015), ELLs are

“often less familiar with U.S. norms and may lack citizenship or documentation, which denies them access to public benefits” (p. 571). Because of this, families of ELLs are reluctant to trust the school system because of these legalities (Irizarry & Williams, 2013). Moreover, when compared to their peer groups, ELLs may be forced into the role of caregiver for younger siblings (Irizarry & Williams, 2013).

The achievement of African American and Hispanic students compared to their White peers has been studied for decades. Voight, Hanson, O’Malley, and Adekanye (2015) noted, “Education inequity is a persistent reality of American culture” (p. 253). Analysis by the National Center for Education Statistics (NCES) in 2009 and 2011 showed that “Hispanic students trailed their White peers by an average of more than 20 test-score points on the National Assessment of Educational Progress math and reading assessments at 4th and 8th grades, a difference of about two grade levels” (Ansell, 2011, p. 3). This national achievement gap is also observed locally. In the 2016-2017 TAPR, Hispanic performance was below the state average on the English 1 end of course (EOC) exam, with 60% of students in Alvin ISD meeting passing standards compared to the state’s 65% meeting passing standards (TEA, 2018d). A closer look at ELLs’ performance in this subgroup reveals only 23% of ELLs approached grade level (TEA, 2018d). Also, only 37% of Hispanic students met the requirements for post-secondary readiness, compared to the state’s 45% (TEA, 2018d). The graduation rate for ELLs in Alvin ISD has risen dramatically in recent years; however, TEA (2018d) reports 64% of ELL graduates in Alvin ISD are college and career ready, compared to the state’s 76%.

Alvin ISD has invested significant resources in teacher training of ELLs through sheltered training and steps to create a language-rich classroom. However, the data suggest that the academic needs of ELLs are still underserved despite these training programs. My

professional experience as a secondary administrator supporting teachers of ELLs for the last five years suggests that something is missing from teacher training and preparation to support and retain quality teachers in sheltered classrooms, which are rapidly becoming the majority of core classrooms on secondary campuses in Alvin ISD. The rapid increase of ELLs in classrooms, coupled with the great diversity of academic and linguistic needs, challenges administration to ensure teachers are supported. Recent research advocates for CRT as a part of teacher training and preparation to support the role of the instructional leader in designing lessons for diverse learners (Aceves & Orosco, 2014; Rubinstein-Avila & Lee, 2014; Turgut et al., 2016). While Alvin ISD supports teachers in creating language-rich classrooms for all students, a general understanding of culture, implicit bias, and CRT methods is not explicitly incorporated into teacher training and preparation programs.

The need for CRT. Miller et al. (2017) found that educators who implement CRT “create opportunities for children to practice new skills, engage in meaningful experiences, and understand what the child brings to the classroom new concepts” (p. 210). By valuing the culture and first language of ELLs, teachers create a sense of belonging where their experiences are valued rather than ignoring or discounting them. According Driver and Powell (2017), CRT includes “knowing and incorporating student identities; therefore, this instructional approach lends itself for teachers working with a range of learner characteristics in their classrooms” (p. 43). Pursing instructional approaches that promote equity is crucial for ELLs to make learning relevant and meaningful.

Teacher training programs must better equip teachers in Alvin ISD to support ELLs. According to Kim, Erekson, Buntun, and Hinchey (2014), “Teacher education programs, often structured to respond to state control on what to teach to pre-service teachers, frequently do not

require pre-service teacher programs to prepare candidates for teaching ELLs” (p. 229).

Furthermore, secondary teacher preparation programs are often focused on the development of particular subject areas rather than language development for a diverse student population (Rubinstein-Avila & Lee, 2014). To support teachers in the increasingly diverse classroom, training should be provided that includes knowledge about CRT to support positive learning experiences.

The early work of Gay (1980) focused on CRT curriculum, but recent research has evolved with a focus on instruction and characteristics of the culturally responsive teacher. According to Villegas and Lucas (2002), culturally responsive teachers possess six characteristics: (a) they are socially aware of their positions and that of their students; (b) they have positive beliefs concerning diverse students; (c) they believe that their responsibility is to be change agents and that they are capable of fulfilling that role; (d) they understand that students come with various epistemologies and can help the students learn within their knowledge construct; (e) they get to know their students; and (f) they design lessons that are compatible with their students’ understanding, while adding to their comprehension.

Gay’s (2013) recent research expanded on these ideas of CRT. Rather than a sole focus on curriculum, Gay asserted similar claims to that of Villegas and Lucas (2002). Gay emphasized that culturally responsive teachers replace deficit perspectives of students by building on student strengths. Teachers must understand how and why cultural differences are essential principles for CRT and then make instructional connections within the context of the learning experience.

The work of Ladson-Billings (1992, 1995, 2014) has also evolved with a focus on “culturally *sustaining pedagogy*” (Paris, 2012, p. 93). Ladson-Billings (2014) affirmed the

recent CRT work of researchers such as Paris and Alim (2014) who urged practitioners to “consider global identities, including developments in arts, literature, music, athletics, and film” (p. 82). Ladson-Billings (2014) hoped the recent focus would “help practitioners learn from and not merely about African American students” (p. 76). She emphasized that pedagogy should be constantly changing to keep up with the changes in our students. Ladson-Billings (2014) observed, “The secret behind culturally relevant pedagogy is the ability for teachers to link principles of learning with deep understanding of, and appreciation for, culture” (p. 77). Her dissatisfaction with the distortion of her central ideas adds to the pressing need for additional time and resources for teachers to learn about and reflect on truly culturally responsive practices.

These characteristics do not come naturally to teachers; rather, they must be learned (Villegas & Lucas, 2002). As evidenced by the disproportionate percentage of White teachers compared to Hispanic students in Alvin ISD, one can understand the need to incorporate the tenants of CRT in the high school classroom. How then do teachers perceive CRT and what exposure have they had with CRT? This study attempted to answer these questions.

Statement of the Problem

The achievement gap for ELLs has been a problem in public schools for decades. However, the rapid increase in Hispanic enrollment with Spanish-speaking students demands a sense of urgency in public education to provide continuous professional learning for teachers. According to the 2016-2017 TAPR (TEA, 2018d), ELLs in Alvin ISD scored below their peer groups in the areas of the Student Success Initiative (see Figure 3).

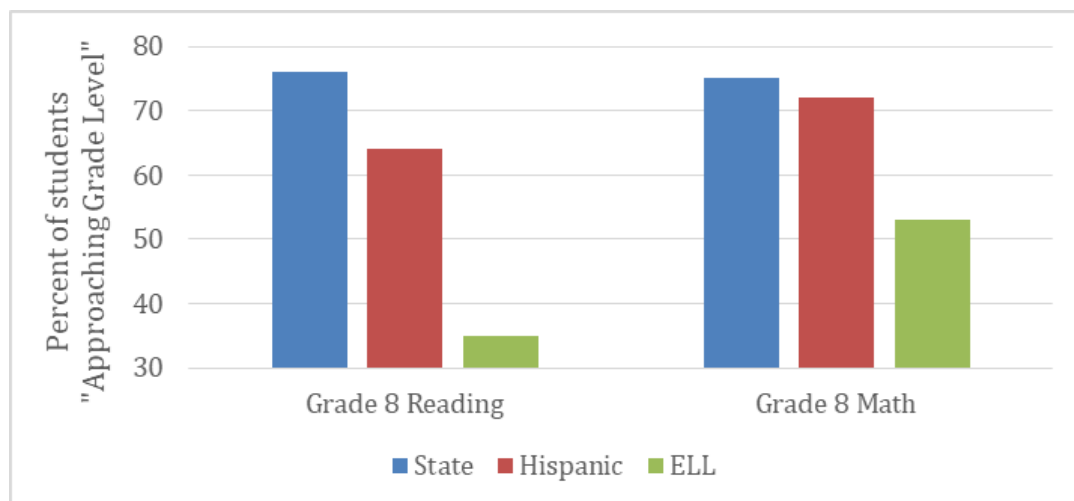


Figure 3. 2017 Student Success Initiative data for students “Approaching Grade Level” on first State of Texas Assessments of Academic Readiness administration of Grade 8 mathematics and Grade 8 reading.

This trend continues at the high school level with the EOC exam performance. Hispanic students and ELLs both performed below their peer groups and the state average on the English I EOC, English 2 EOC, Algebra 1 EOC, Biology EOC, and U.S. History EOC (TEA, 2018d). According to national assessment data from the 2016-2017 TAPR (TEA, 2018d), Hispanic students also lagged behind their peers on the SAT:

- Compared to the state’s 72% of the Class of 2016 participating in the SAT, only 39% of Hispanics in Alvin ISD tested. Of those tested, almost 13% of Hispanic students in Alvin ISD scored at or above the criterion when compared to the state’s almost 23%.
- The average SAT score of Hispanic students also trailed the state average, especially in English Language Arts and Writing. Hispanic students in Alvin ISD had an average score of 873 in this area compared to the state’s average score of 903.

In addition to assessment data, ELLs trail their peer groups in taking and completing advanced coursework. Compared to the state’s 39% of Grade 9 through Grade 12 students who completed dual credit college coursework, only 8.6% of ELLs in Grade 9 through Grade 12

completed dual credit coursework (TEA, 2018d). Likewise, compared to the state's 45% of students who completed advanced placement coursework, only 16% of ELLs completed advanced placement coursework (TEA, 2018d).

The current era of assessment and accountability adds to the pressure on teachers to support students from diverse backgrounds (Brown, 2015). In 2015, "President Barack Obama signed into law the Every Student Succeeds Act, a reauthorization of the Elementary and Secondary Education Act that replaced the No Child Left Behind of 2001" (Dennis, 2016, p. 395). The No Child Left Behind Act mandated statewide accountability systems for all students, with specific emphasis on campuses and districts closing the achievement gap (Bui & Fagan, 2013). Despite the new legislation, the assessment and accountability measures are still present, but according to Dennis (2016), the Every Child Succeeds Act does "acknowledge the need for educators to continue their development as effective teachers" (p. 396).

Across the state and locally in Brazoria County and in Alvin ISD, ELLs experience unique language acquisition challenges that educators must be prepared to support as they work with students speaking over 75 different languages. Additionally, ELLs may bring unique cultural perspectives that teachers must be willing to embrace. The lack of teacher preparation to address these challenges is contributing to achievement gaps for these students (Jiménez et al., 2015; Miller et al., 2017; Turgut et al., 2016). Rubinstein-Avila and Lee (2014) found secondary teachers felt "ill-prepared to scaffold or differentiate instruction to meet these students' language and academic needs" (p. 187). Additionally, studies have shown that teachers, especially those who are White, often have lower expectations for ELLs (Marx, 2000, as cited in Jiménez et al., 2015).

Demographic shifts in student populations have resulted in a significant concern for the impact of teaching and learning in suburban districts, because teachers who once taught monolingual students are now teaching more academically and linguistically diverse student populations. One of the most significant challenges facing administrators in the district is how to prepare and support teachers for the diversity in their classrooms. The achievement gap of ELLs in Alvin ISD is a significant problem, as evidenced by local, state, and national data when looking specifically at the Hispanic subpopulation. There are significant implications for the district to ensure inclusion and availability of appropriate resources and supports for ELLs. Improved teacher preparation with CRT methods is at the forefront of this study to assist teachers in Alvin ISD to support ELLs in the secondary classroom.

Despite research on the perceived attitudes, perceptions, and biases of teachers in increasingly diverse classrooms (Irizarry & Williams, 2013; Reeves, 2006), teachers in Alvin ISD are not explicitly trained with CRT methods to overcome these biases that may impact instruction and assessment methods. This study investigated if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention.

Purpose of the Study

Increased ELL student enrollment and the widening achievement gap demand further attention in Brazoria County, Texas. The goal of this research was to contribute to fully equipping teachers in Alvin ISD to respond to ELLs academically, culturally, and linguistically. The purpose of this study was to investigate teacher attitudes and perceptions to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention.

Merriam-Webster (2012) defines attitude as “a mental position with regard to a fact or state or a feeling or emotion toward a fact or state” (“Attitude,” p. 80). Pratkanis, Turner, and Murphy (2013) expand on this definition, stating attitude is “a person’s positive or negative evaluation of an object or thought” (para. 1). This definition will be adopted for the purposes of the current study. For this study, I investigated teachers’ attitudes in terms of the way they feel or their general positive or negative evaluations held regarding CRT and ELLs.

Additionally, Merriam-Webster defines perception as “a mental image” (“Perception,” 2012). Perception is further defined as “the process of registering sensory stimuli as meaningful experience through complex constructions of simple elements joined through association” (“Perception,” 2017). This definition was adopted for the purposes of the current study. For this study, I investigated perceptions in the way teachers think about or recognize and interpret information regarding CRT and ELLs.

Research Questions

Q1. Is there a statistically significant difference between secondary teacher perception of CRT before and after participation in a CRT training intervention?

H₀. There is no statistically significant difference in teacher perception of CRT before and after participation in a CRT training intervention.

H₁. There is a statistically significant difference in teacher perception of CRT before and after participation in a CRT training intervention.

Q2. Is there a statistically significant difference between secondary teacher attitude toward CRT before and after participation in a CRT training intervention?

H₀. There is no statistically significant difference in teacher attitude toward CRT before and after participation in a CRT training intervention.

H₁. There is a statistically significant difference in teacher attitude toward CRT before and after participation in a CRT training intervention.

I hypothesized that educators who participated in the CRT in-service training would develop positive attitudes toward CRT and gain a greater multicultural awareness to change their perception of CRT and teaching ELLs, thus rejecting the null hypothesis.

Definitions of Key Terms

Attitude. Pratkanis et al. (2013) defined attitude as “A person’s positive or negative evaluation of an object or thought” (para. 1).

Culturally responsive teaching (CRT). According to Gay (2010), CRT uses “the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant and effective for them” (p. 31).

English language learner (ELL). Webb and Barrera (2017) identified ELLs as needing linguistic supports to overcome academic barriers. According to the Texas Education Code Sec. 29.052, an ELL is a “student whose primary language is other than English and whose English language skills are such that the student has difficulty performing ordinary classwork in English” (TEA, 2018c, para. 1). The terms LEP and English learner are used interchangeably.

English as a second language (ESL). In Alvin ISD, ESL teachers work with ELLs to support language development in the English language. Thus, ESL classrooms tend to be culturally diverse. In this setting, students are surrounded by English and have daily opportunities to speak English (Hong-Nam & Szabo, 2012). This language acquisition process is different from a student learning English in a country where the native language is something other than English. Although those students are also learning English, they are doing so outside of a native speaking context and are thus considered to be English as a foreign language learners.

Limited English proficiency (LEP). According to the Texas Education Code Sec. 29.052, “a student of LEP means a student whose primary language is other than English and whose English language skills are such that the student has difficulty performing ordinary classwork in English” (TEA, 2018c, para. 1). The terms LEP and English learner are used interchangeably.

L1. L1 refers to a person’s first language; he or she is a native speaker of that language.

L2. L2 refers to a second or a foreign language; a person is a non-native speaker of the second language. By employing CRT methods, language and literacy knowledge in the first, native language (L1) are available for access by the student to assist him or her in the second language (L2) acquisition, resulting in a transfer of knowledge across languages (Miller et al., 2017).

Perception. Perception is defined “as the process of registering sensory stimuli as meaningful experience through complex constructions of simple elements joined through association” (“Perception,” 2017).

Secondary. Secondary refers to the level of schooling for a student. For this study, secondary teachers refer to high school teachers in Grade 9 through Grade 12.

Summary

This introductory chapter presented the background for the study that examined the achievement gap for ELLs and the need for CRT in teacher preparation programs to adequately prepare teachers to support the needs of a diverse student population. To address this problem in Alvin ISD, the appropriate approach was a quantitative study using a validated instrument to analyze if a statistically significant difference existed in teacher attitudes and perceptions before and after participation in a CRT training intervention. The nature of the quantitative study

allowed me to gain an understanding of how the participants perceived CRT and to evaluate the effectiveness of a CRT training program intended to support teachers of ELLs.

Chapter 2 includes a review of the literature on CRT, language teaching, and teacher training programs currently used in Alvin ISD. Chapter 3 includes a discussion of the quantitative methodology of the study and details regarding methods used in gathering and analyzing the data.

Chapter 2: Literature Review

The purpose of this study was to investigate teacher attitudes and perceptions to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention. Therefore, it was essential to investigate the literature concerning CRT, language teaching, and current teacher training initiatives of Alvin ISD.

To identify relevant and current literature, I used the Abilene Christian University library system, including the online collection of databases such as EBSCO, Sage, and ERIC. These online databases identified relevant research on ELLs, CRT, language teaching, and teacher training of ELLs. I also used TEA's website, specifically the TAPR, various reports, and sections of the education code about ELLs. Furthermore, I attended the Culturally Responsive Institute hosted by the Region 4 Education Service Center and received additional research and resources about operationalizing culturally responsive pedagogy.

Culturally Responsive Teaching

In the 1990s, Ladson-Billings laid the foundation for CRT as a pedagogy that recognized the importance of including students' identities in all aspects of learning. Ladson-Billings (2014) was primarily concerned with "practical ways to improve teacher education in order to produce new generations of teachers who would bring an appreciation of their students' assets to their work in urban classrooms populated with African American students" (p. 74). In 1995, Ladson-Billings suggested that CRT must include: "an ability to develop students academically, a willingness to nurture and support cultural competence, and the development of a sociopolitical or critical consciousness" (p. 483). Ladson-Billings (2014) focused on eight teachers who were "thoughtful, inspiring, demanding, critical, and connected to their students, their families, and

their communities” (p. 74). She studied the way these teachers taught to describe their teaching in ways that would support other teachers. Her most recent research has evolved to meet the needs of today’s students, with ever-changing aspects of culture and technology focused on the importance of dynamic scholarship. Ladson-Billings (2014) asserted the need for educators with “a fluid understanding of culture who engage students with teaching practices that explicitly engage questions of equity and justice” (p. 74). It is imperative that educators continue to push forward to engage critically in the cultural landscape of classrooms and teacher preparation programs.

Gay (2000, 2010) is also well-known for her work with CRT. Like Ladson-Billings (1995, 2014), Gay believed culture was multidimensional and constantly changing. In contrast to traditional pedagogies, Gay (2000) asserted, “The culturally responsive framework places students’ cultures at the core of the learning process and utilizes the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students” (p. 29). Gay (2010) defined CRT as “using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them” (p. 31). Garcia and Chun (2016) described the five essential elements of CRT as “developing a culturally diverse knowledge base, designing culturally relevant curricula, demonstrating cultural caring and building a learning community, establishing effective cross-cultural communications, and establishing congruity in classroom instruction” (p. 174). Gay (2002) noted that culturally responsive teachers empower their students with high expectations and a commitment to student success and validate the experiences of students by bridging gaps between the home and the school while using non-mainstream curriculum to support learning. Accordingly, Gay’s (2010) focus on teaching

attempted to influence competency, prescribing what a culturally responsive teacher should be doing in the classroom.

Researchers continue to build on this framework to support diverse students. Many researchers consider CRT to be a student-centered approach to learning (Aceves & Orosco, 2014; Nzai & Reyna, 2014; Ramirez et al., 2016; Torres, 2016). Culturally responsive teachers understand where they come from and their frame of reference about schooling. Wiens (2015) found, “Through this self-reflection, teachers become aware of the lens through which they view themselves and their students” (para. 4). This is an integral component of the motivational framework for culturally responsive teaching (MFCRT), as it was initially designed to be a tool of self-reflection (Rhodes, 2017). It is through this awareness that teachers can be mindful about how their experiences may influence what they expect from their students.

CRT is a comprehensive approach for teachers to demonstrate an understanding of who their students are. Walter (2018) asserted, “Understanding students’ identities, achievements, and perspectives enables teachers to affirm diversity and strengthen the connections” between school, home, and the community (p. 25). The researcher went on to state, “Knowing students well enough to know what they need, what motivates them, and how and why they learn” will allow teachers to design engaging lessons that help students reach their maximum potential (Walter, 2018, p. 26). According to Wiens (2015), culturally responsive teachers “understand that knowledge is constructed from the vast experiences students have” (para. 6). Driver and Powell (2017) agreed that teachers should “view diverse student experiences, perspectives, and languages as resources in their classroom” (p. 43).

In June 2015, a correlational study of teacher efficacy and CRT techniques was conducted in a Southeastern Urban school district. In this study, Callaway (2017) found a

positive and statistically significant relationship between personal teacher efficacy, general teacher efficacy, and CRT. According to Callaway, “Teachers with a strong sense of cultural teaching efficacy tend to make decisions that are in the best interest of their students” (p. 20). Culturally responsive teachers create a safe environment for students to take risks and explore topics that are relevant to them.

Similar results, in a 2017 study of improving active classroom participation of adult ESL students through the application of CRT strategies, found the implementation of CRT strategies increased the frequency of students’ classroom participation (Chen & Yang, 2017). Chen and Yang (2017) noted, “Teacher instructions incorporating CRT strategies were more likely to increase students’ involvement in communication and enhance their communication skills” (p. 85).

Researchers also suggest equity is a driving force of CRT (Aceves & Orosco, 2014; Boyce & Chouinard, 2017; Rhodes, 2017). Walter (2018) found that teachers who use randomization methods to engage all students in classroom conversations were employing CRT methods. Likewise, turn and talk strategies, think-pair-share activities, and exit tickets are culturally responsive strategies that support student communication of their learning (Walter, 2018). On the contrary, teachers who rely on volunteers to participate in classroom discussions are not employing CRT, because inevitably, the same students will respond, neglecting the perspective of many students in the classroom. Ramirez and Jiménez-Silva (2015) emphasized, “Through CRT, a teacher is aware of diverse learning styles associated with student learning and focuses on creating a cooperative learning environment” (p. 88). An equitable approach to classroom discussion is one method teachers can use to empower students by creating supportive student learning environments.

Innovation configuration for CRT. The work of Aceves and Orosco (2014) can be used by secondary teachers to evaluate course syllabi and lesson design to ensure they emphasize elements of CRT approaches. According to Aceves and Orosco, “Teachers who utilize CRT practices value students’ cultural and linguistic resources and view this knowledge as capital to build upon rather than as a barrier to learning” (p. 7). The researchers identified six general CRT themes and four CRT practices that were considered emerging, evidenced-based practices. They also recommended two CRT teaching approaches and two culturally responsive instructional considerations (Aceves & Orosco, 2014).

CRT themes. Aceves and Orosco (2014) extended the work of Ladson-Billings and Gay to describe relevant themes of CRT. First, students should be positively engaged in the instruction. Teachers can accomplish this by providing “teaching that draws from culturally and linguistically diverse (CLD) students’ relevant schemas, background knowledge, and home languages” (Aceves & Orosco, 2014, p. 8). In reviewing Ginsberg and Wlodkowski’s (2009) MFCRT, Rhodes (2013) described CRT as “teaching that increases intrinsic motivation of students of non-dominant cultural groups” (p. 20). Rhodes theorized that “a learner feels more intrinsic motivation to learn when experiencing emotional well-being” (p. 20).

According to Wlodkowski (2004), “Because motivation plays such a key role in learning, teaching methods and educational environments that motivationally favor particular learners to the exclusion of others are unfair and diminish the success for those learners discounted or denied in this situation” (p. 32). In Wlodkowski and Ginsberg’s (1995) original motivational framework, “Engagement is the visible outcome of motivation” (p. 17). The key to engagement is helping students relate content to their experiences. To create a sense of belonging in the classroom, culturally responsive activities, such as sharing events, interviews, and field trips, can

create safe and nurturing environments. A recent study of literacy educators identified the beliefs, values, and challenges of teachers regarding diversity (Sharma et al., 2016). Sharma et al. (2016) discovered one central theme, direct engagement, was extremely beneficial for diverse students, such as ELLs. Sharma et al. (2016) found the students are motivated to learn as the meaning is enhanced in the learning process through direct and indirect engagement opportunities.

Second, CRT methods provide teachers with an understanding of how students' culture, language, and racial identity can impact student learning and engagement. According to Aceves and Orosco (2014), "Language, the communication medium of culture, can be shaped by one's cultural identity"; whereas, racial identity is the "sense of one's cultural and linguistic beliefs and values" (p. 9). Taken together, the experiences with culture and language can help form students' identities. Honoring the home language in the classroom whenever possible affirms students' identities. Culturally responsive teachers reshape traditional curriculum to integrate non-mainstream content in order to connect school learning to students' identities (Gay, 2013; Morrison, Robbins, & Rose, 2008). Allowing students to bring in family artifacts or using familiar objects to students increases relevance and allows students to make connections to new content. In a recent study in a rural South Korean community, Song (2018) observed that incorporation of a variety of activities for students to relate to their own cultural identity and that of others helped students "better understand their bicultural peers, accept diversity, and not engage in bullying and teasing behaviors" (p. 19). Song discovered that the inclusion of CRT strategies through five cross-cultural activities helped students think critically and develop an open mind about their own and other cultures.

Third, CRT requires teachers to be multi-culturally aware in examining their own beliefs, perceptions, and biases. In a study examining pre-service teachers' CRT self-efficacy doubts, Siwatu, Chesnut, Alejandro, and Young (2016) revealed that pre-service teachers were less confident about teaching in ways that relate to the student's home life (e.g., language, culture) and being able to teach students about the historical relevance of diverse cultures in the development of the society that we live in today. Siwatu et al. (2016) asserted, "Preservice teachers recognized the value and utility of culturally responsive classroom practices yet doubted their ability to implement them in the classroom successfully" (p. 294). Siwatu et al. believed that instruction with real students in an authentic classroom setting will "not only help preservice teachers develop the skills and knowledge necessary to make accurate self-efficacy appraisals, but may also increase their interest to learn more about student diversity and culturally responsive teaching" (p. 293). This sort of instruction and personal reflection allows teachers to be sensitive to the experiences of other cultures (Aceves & Orosco, 2014). Self-reflection for teachers is an essential concept in the MFCRT and the sheltered instruction observation protocol (SIOP) model to instruct ELLs (Boyce & Chouinard, 2017; Kareva & Echevarria, 2013; Rhodes, 2017).

The fourth emergent theme is the presence of high academic and behavioral expectations for the students of culturally responsive teachers. Culturally responsive teachers communicate clear and specific expectations to students, while providing instructional strategies that are standards-driven through the use of challenging and engaging learning experiences (Aceves & Orosco, 2014; Jiménez et al., 2015; Pereira & de Oliveira, 2015; Voight et al., 2015). Morrison et al. (2008) asserted that culturally responsive teachers "support students in meeting high expectations through creating nurturing and cooperative environments" (p. 436). Garcia and

Chun (2016) examined the relationship between CRT and teacher expectations for Latino middle school students and found that students' perceptions of teachers' expectations likely affected students' academic self-efficacy. Their research supports the importance of teachers conveying high expectations for all students. Garcia and Chun stated, "By providing students with equal response opportunities, feedback, and personal regard, students may sense their teachers' belief and in turn feel capable themselves" (p. 182).

A fifth theme is the importance of critical thinking. Aceves and Orosco (2014) asserted, "CRT methods provide teachers with the skills to teach students how to become critical thinkers by integrating their cultural and linguistic experiences with challenging learning experiences involving higher order thinking and critical inquiry" (p. 10). According to Wlodkowski and Ginsberg's (1995) framework, "Collaborative learning, hypothesis testing, critical questioning, and predicting heighten the engagement, challenge, and complexity of this process for the students" (p. 19). The *enhancing meaning* part of Ginsberg & Wlodkowski's (2009) framework evolved over time to encourage "deep reflection and critical inquiry that address relevant, real-world issues in an action-oriented manner" (p. 46). Culturally responsive practices that enhance meaning for diverse learners in such a manner include the use of simulation, role-playing, and competitions. According to Rhodes (2013), "Problem posing is another culturally responsive strategy that enhances student engagement while adding a challenging and critical element to classroom discussions" (p. 24). Ramirez et al. (2016) examined two preservice teachers in an urban high school in Arizona and found that students developed critical thinking skills when CRT methods are employed. Ramirez et al. noted, "The literacy work students were engaged in reinforced the value of student community activism and fostered their critical thinking skills as well as informed their agency" (pp. 26-27).

Finally, CRT must include the development of critical consciousness. Aceves and Orosco (2014) emphasized, “Culturally responsive teachers include a strong social-justice component in their instruction through which they help students identify and confront sociopolitical inequities and issues of social power and class privilege” (p. 12). Culturally responsive teachers instill a sense of efficacy to promote social change within their school and community (Webb & Barrera, 2017). Morrison et al. (2008) believed that encouraging relationships between school and communities sends the message to students that “where they come from is important” (p. 440). Teachers can develop critical consciousness with their students by using critical literacy strategies and allowing students to discuss highly debated topics (Morrison et al., 2008). Additionally, by engaging students in social justice work and allowing them to provide real services to the community, teachers can further develop critical consciousness. Finally, culturally responsive teachers develop critical consciousness by sharing authority in the classroom and allowing students to have a voice and make important decisions regarding classroom policies (Morrison et al., 2008). In developing critical consciousness, culturally responsive teachers create a safe space for students to discuss controversial topics, allow social issues to drive instruction, provide opportunities for community service, and model and promote attitudes of equity and compassion.

CRT practices. Emerging research is beginning to identify and prescribe effective culturally responsive practices for teaching students from diverse backgrounds. Aceves and Orosco (2014) identified four emerging evidence-based practices for students from CLD backgrounds: “collaborative teaching, responsive feedback, modeling, and instructional scaffolding” (p. 13).

According to Aceves and Orosco (2014), collaborative learning is an important component of CRT. Culturally responsive teachers aim to be collaborative and often encourage students to share and learn from their collective experiences (Boyce & Chouinard, 2017; Driver & Powell, 2017; Khong & Saito, 2014; Pereira & de Oliveira, 2015). Culturally responsive teachers may organize students into small groups and provide targeted instruction based on learning needs (Driver & Powell, 2017; Lopez & Iribarren, 2014). Aceves and Orosco cited several studies where collaborative-based learning approaches were utilized to “engage CLD students in small groups in content-related strategic discussion to assist students in understanding concepts, deriving the main ideas, asking and answering questions, and relating what they were learning to their cultural backgrounds” (p. 14).

Responsive feedback is another essential CRT practice. Aceves and Orosco (2014) defined culturally responsive feedback as “critical, ongoing, and immediate feedback regarding students’ responses and participation” (p. 14). When students receive this frequent feedback, adjustments can be made throughout the lesson cycle to support student growth before the gap grows too wide. Aceves and Orosco (2014) recommended, “To engage in this critical feedback exchange, teachers must create multiple opportunities for students to respond and fluidly dialogue throughout the day” (p. 15). Critical feedback exchange can be accomplished with a variety of strategies, including individual reading and writing conferences, randomizing questioning techniques that ensure equity of all students with a chance to respond, or total response signals to gather feedback from all students simultaneously.

In education, modeling has been regarded as an essential piece of effective teaching. Through modeling, the teacher provides students with a clear example of skills or strategies (Kareva & Echevarria, 2013). In this way, teachers engage students in the learning target, so

students understand what they are learning and how to get there. Aceves and Orosco (2014) noted that as a culturally responsive practice, modeling involves “explicit discussion of instructional expectations while providing examples based on students’ cultural, linguistic, and lived experiences” (p. 15).

Culturally responsive instructional scaffolding allows teachers to use different types of questions, along with a multitude of communication strategies to promote a deeper level of understanding. Scaffolding includes a variety of questions with appropriate wait time, extending on student responses, and using additional resources to support learning. Aceves and Orosco (2014) noted that scaffolding may also “include reference to ELLs’ primary languages or culture” (p. 15). According to Lopez and Iribarren (2014), “Approaches that view students’ native languages as scaffolding tools are but one example of many ways school leaders can promote inclusivity” (p. 108).

CRT teaching approaches. Teachers are encouraged to consider a problem-solving approach and student-centered practices, but this is especially important for diverse student populations. Morrison et al. (2008) noted, “Culturally relevant teachers demonstrate high expectations for student achievement through the use of challenging academic curricula” (p. 435). Morrison et al. believed that culturally responsive teachers understand that “offering a rigorous curriculum rarely results in student achievement if students are not supported throughout the learning process” (p. 435). According to Morrison et al. (2008), teachers can create a student-centered environment by offering support through “intensive modeling, scaffolding, and clarification of challenging curriculum” (p. 435). Additionally, culturally responsive teachers build off of student strengths. In this way, students have positive first experiences with content before moving on to more difficult content.

Aceves and Orosco (2014) asserted that teachers should also be thoughtful about the assessment of diverse students and “the selection of instructional materials that support students’ cultural and linguistic experiences” (p. 17). Aceves and Orosco stated, “Engaging students in solving meaningful problems allows for complex and higher order thinking while increasing students’ motivation to learn and resolve authentic issues in their daily lives” (p. 16). By increasing the relevance in the learning, teachers will also increase students’ motivation to learn. Aceves and Orosco believed, “Problem-solving becomes culturally responsive when students address problems that touch upon cultural and linguistic issues to improve their daily lives” (p. 17). This support can also be provided outside of the classroom. For example, counselors can support students in investigating colleges with supportive programs for diverse student populations.

Student-centered classrooms inspire student-generated ideas, embed student choice, build on background knowledge, affirm values, and appeal to a variety of communication styles and learning preferences. Aceves and Orosco (2014) asserted, “Students’ contributions drive the teaching and learning process in a culturally responsive classroom as teachers develop culturally responsive learning opportunities and outcomes” (p. 18). Choice and participation are fundamental elements to CRT practices cited by researchers to increase the relevance of the learning experience (Rhodes, 2017; Wlodkowski & Ginsberg, 1995).

Culturally responsive instructional considerations. Effective teachers utilize a combination of ongoing formative assessments prior to summative assessments to continually monitor student learning and progress; culturally responsive teachers understand this and use a variety of assessments reflective of student identities (Aceves & Orosco, 2014). Aceves and Orosco (2014) argued, “while interpreting assessment results, teachers must recognize that

norms regarding expected student performance may vary depending on students' cultural backgrounds and experiences" (p. 19). Teachers should integrate multiple ongoing assessments of learning and recognize that learning is a process.

Approaches to Language Teaching

Several approaches to teaching linguistically diverse students have been implemented over the years and not all of them successful (Kim et al., 2015). According to Kim et al. (2015), there are five dominant models for bilingual education submersion: "ESL instruction; early-exit or transitional bilingual education; late-exit, developmental, or maintenance bilingual education; and two-way immersion" (p. 237). In Alvin ISD, elementary education employs the one-way and the two-way immersion model, while in the secondary setting, ESL instruction is utilized.

The sheltered instruction observation protocol. After a 7-year study sponsored by the National Center for Research on Education, Diversity, and Excellence, Kareva and Echevarria (2013) developed the SIOP. Kareva and Echevarria collaborated "with teams of teachers to identify best practices from the professional literature and organize combinations of these techniques to build a model of sheltered instruction" (p. 240). The SIOP became "a framework for teachers to present curricular content concepts to second language learners through strategies and techniques that make new information comprehensible to the students" (Kareva & Echevarria, 2013, p. 240).

On the secondary campuses in Alvin ISD, sheltered instruction is utilized to make lessons meaningful and understandable for ELLs. Kareva and Echevrrria (2013) believed, "With high-quality instruction that includes linguistic accommodations, students have access to the core curriculum and learn the kind of academic language they need to be successful in school" (p. 239). According to Kareva and Echevarria, sheltered instruction "gives students an opportunity

to learn the target language as they master important content and skills” (pp. 239-240). Teachers are trained in the sheltered instruction model to combine cooperative learning and reading comprehension strategies with specific learning strategies to support ELLs.

There are several components of the SIOP model. The focus of each SIOP lesson includes “content and language objectives that are defined, displayed, and orally reviewed with students” (Kareva & Echevarria, 2013, p. 240). With explicit content and learning objectives, students should know what they are learning, what they should be able to do, and how they know if they have learned it by the end of the lesson.

Teachers using the SIOP model build upon the background knowledge of students. Kareva and Echevarria (2013) observed that teachers incorporated CRT when they “connect new concepts with students’ personal experiences and past learning” (p. 241). Teachers build background knowledge or activate prior knowledge to mitigate misconceptions and understand what students know about the particular learning standard. Rhodes asserted, this activation of prior knowledge “helps students develop a positive attitude toward the learning process” (p. 7). Kareva and Echevarria stated: “studies of vocabulary instruction show that second language learners learn more words through explicit instruction” (p. 241). Because of this, the SIOP model “places significance on building a large vocabulary base” (Kareva & Echevarria, 2013, p. 241) for ELLs. Kareva & Echevarria found, “Effective SIOP teachers design lesson activities that give students multiple opportunities to use new vocabulary, orally and in writing” (p. 241).

Comprehensible input is another essential component of the SIOP model. Kareva & Echevarria (2013) noted, SIOP teachers “explain academic tasks clearly and in steps, both orally and in writing, for second language students” (p. 241). SIOP teachers explain with clarity, model, and provide examples of quality work to ensure students know what is expected.

Language accommodation techniques allow ELLs to comprehend the lesson's learning outcomes when teachers utilize a variety of strategies, including restating important concepts; paraphrasing; previewing and reviewing important information; using visual representations to support the content; demonstrating and modeling tasks; using movement and gestures to make concepts clear; providing simulations; using pictures, charts, and objects to make connections; and providing hands-on activities (Kareva & Echevarria, 2013). This dimension of the SIOP model supports the *enhancing meaning* element of MFCRT.

There are additional components of the SIOP model aligned to MFCRT. Kareva and Echevarria (2013) asserted that SIOP “addresses student learning strategies, teacher-scaffolded instruction, and higher-order thinking skills” (p. 241). According to Kareva and Echevarria,

As L2 learners master a skill or task, teachers remove the supports that were provided and add new ones to the next level. The goal, of course, is the gradual release of responsibility so that second language learners can work independently by achieving independence one step at a time. (p. 242)

Teachers also ask higher levels of questions that require thought and support deep learning.

Student collaboration is vital for second language learning and is another component of MFCRT, with the element of *establishing inclusion*. Kareva & Echevarria found that in SIOP classes “oral language practice helps students to develop and deepen content knowledge and support their second language speaking, reading, and writing skills” (p. 242). Teachers encourage partner and small group work for ELLs to practice new vocabulary. Students are also encouraged to ask for clarification, confirm interpretations, elaborate on ideas, support claims, and consider differing opinions (Kareva & Echevarria, 2013). These collaborative learning opportunities should engage ELLs with non-second language learners.

Practice and application are critical components of the SIOP model that are often neglected in traditional teacher-led classrooms. Kareva and Echevarria (2013) emphasized, “For second language learners to learn the language, it is imperative that they practice and apply content information as well as literacy and language processes (reading, writing, listening and speaking) in every lesson” (p. 242). Teachers ensure that each lesson includes a variety of activities to engage ELLs in the learning process with hands-on activities, opportunities for collaboration, and projects, when relevant and meaningful.

Ongoing review and assessment are also essential components of the SIOP model and are the fourth element of MFCRT with *engendering competence*. Kareva and Echevarria (2013) asserted, SIOP teachers “check on student comprehension frequently to determine whether additional explanations or re-teaching are needed” (p. 242). By using ongoing formative assessments, teachers can provide ELLs timely feedback on correct and incorrect responses.

Seven steps to a language-rich classroom. In Alvin ISD, previous training from the SIOP model has merged with the work of John Seidlitz to support a language-rich classroom for ELLs. Teachers are currently trained in the *Seven Steps to Building a Language Rich Interactive Classroom* (Seidlitz & Perryman, 2011), where ELLs will thrive. Research shows that the use of metacognitive strategies in the classroom have a positive impact on student performance (Seidlitz & Perryman, 2011). Seidlitz and Perryman (2011) stated, “Teaching students what to say when they do not know what to say is a metacognitive strategy” (p. 12). Teachers should provide students with other ways to communicate when they are not sure how to respond. For example, instead of a student saying, “I don’t know,” teachers provide different responses that students can choose from or a sentence stem when they do not know an answer.

It is also vital to have ELLs speak in complete sentences. Seidlitz and Perryman (2011) found that this simple expectation “dramatically improves the quality of interactions in our classroom” (p. 17). Having students speak in complete sentences allows students to hear the academic language multiple times used in correct context. Teachers can also provide students with sentence stems to support this communication of their learning in complete sentences.

Seidlitz and Perryman (2011) strongly encouraged student voice in the learning process. Students can be called on individually, with strategies to randomize or rotate when calling on students. The goal of this step is in alignment with the equity of CRT. Randomization and rotation ensure all students are engaged in the learning, so all students’ learning may be assessed (Garcia & Chun, 2016; Seidlitz & Perryman, 2011). Seidlitz and Perryman stressed that the goal of randomization is “to have everyone involved in discussions so that we can assess all students’ understanding of concepts, not just those students who enjoy participating” (p. 23). In addition to randomization, Seidlitz and Perryman encouraged inclusion of total response signals to assess learning and understanding of all students at once. According to Seidlitz and Perryman, in a safe environment, “Total response signals are cues students can use to indicate they are ready to respond to a question or ready to move on to new to new material” (p. 29). Students can use a written response, ready response, make a choice, or rank particular statements in this way. Finally, ELLs should participate in structured conversations daily. Student-to-student interaction using academic vocabulary increases student achievement (Marzano, Pickering, & Pollock, 2001). Turn and talk strategies work well because they engage all students in meaningful discussions.

In addition to supporting communication, teachers can support ELLs with visuals and vocabulary strategies that support learning objectives. Like the SIOP model, visual tools, such

as graphic organizers, greatly support ELLs learning new vocabulary. Seidlitz and Parrymen (2011) presented vocabulary strategies, such as scanning, Marzano's building academic vocabulary, and incorporating the use of sentence stems, to support ELLs in a language-rich classroom.

Cooperative Learning

CRT has many similarities to cooperative learning. Decades of research suggest that “students learn effectively when they work cooperatively” (Yusuf, Jusoh, & Yusuf, 2019, p. 140). According to Rhodes (2013), “Culturally responsive teachers strive to establish positive interdependence among students by using collaborative and cooperative learning activities” (p. 21). The fundamental elements of cooperative learning have many similarities to the tenants of CRT. When teachers use cooperative learning strategies, student groups should be created with the key components of cooperative learning (Johnson & F. Johnson, 2009). According to Gillies (2016),

Teachers must structure positive interdependence within the learning situation so all group members understand that they are linked together in such a way that one cannot achieve success unless they all do, and they must learn to synchronize their efforts to ensure this occurs. (p. 41)

Successful interdependence is created when students understand what they are individually responsible for and that the group will not achieve its goals unless each member successfully completes individual tasks (Gillies, 2016). When group members experience this sort of positive interdependence, the group meets, and oftentimes, exceeds the group goal.

The second key component for successful cooperative learning is promotive interaction. Gillies (2016) defined promotive interaction as “the willingness of group members to encourage and facilitate each other's efforts to complete their tasks in order for the group to achieve its

goal” (p. 41). Johnson and R. Johnson (1990) suggested that this promotive interaction is characterized by students helping each other, sharing resources, giving each other specific feedback, challenging other’s conclusions and reasoning to encourage deep discussion, and working together to accomplish the group goal. Gillies (2016) asserted, “with these opportunities to interact in small group discussion, students learn to read non-verbal language, respond to social cues, and engage in discussions about the work they are completing” (p. 41). This component allows students to develop an awareness of what they do not understand and what they still need help with, and it allows students to have an awareness about what they know and how they can help the group, as needed.

The third key component is individual accountability. Gillies (2016) believed it was important that students understand “their responsibility in completing their share of work, while also ensuring that others complete theirs” (p. 41). The more students are connected in their work, the more they feel like they contributed to the efforts of the group. Johnson and R. Johnson (1990) claimed that teachers can promote individual accountability by structuring positive interdependence among group members and by holding students personally accountable for their individual efforts and achievements.

The fourth component to cooperative learning is the explicit training of the skills required to work with others in group settings. Gillies (2016) argued that “assigning students to groups and expecting them to know how to cooperate does not ensure that this will happen” (p. 41). Students must be taught how to cooperate and help each other. Johnson and R. Johnson (2009) argued that students need to practice the social skills necessary for high-quality cooperation. According to Gillies, “the social skills that must be taught to facilitate students’ interactions during small group discussions include: active listening, sharing ideas, commenting

constructively, accepting responsibility, and making democratic decisions” (p. 42). After these skills are taught and modeled, students must be motivated to continue using these social skills to promote positive collaboration among group members. Teachers can support this process by celebrating students who used these social skills and providing ongoing feedback to students on how effectively they are using these skills. This will also help create more positive relationships among group members.

Another part of cooperative learning is group processing. Gillies (2016) defined group processing as “students reflecting on their progress and their working relationships” (p. 42). Students need opportunities to reflect on what they have achieved, what they still need to achieve, and how to get there.

Teachers play a crucial role in creating positive cooperative learning experiences in their classrooms. The heterogeneous structure, the size, and the tasks assigned are critical considerations for teachers. Gillies (2016) believed that teachers must structure the groups and tasks so that “students understand what they are expected to do and how they should behave” (p. 44). Gillies went on to state, “Helping students to interact and work together not only enables students to learn from each other but also to accept responsibility for the tasks they have to complete and the decisions they have to make” (p. 44). This is an equally important tenant in CRT practices, as well.

Cooperative learning is essential for students to successfully engage in social justice discussion, which is an important component of CRT. Gillies (2004) determined that when teachers were trained to facilitate learning by probing and clarifying issues, confronting discrepancies in students’ thinking, and validating students’ responses, the students’ responses

were more detailed. Students will have success engaging in discussions surrounding social justice issues when they have been taught to do so.

Teacher Training

There is research about the inadequacies of teacher professional development throughout the last few decades. According to Joyce and Calhoun (2015), “professional development of all types is currently squeezed into little windows of time that are simply inadequate to address the needs of teachers on an ad hoc basis” (p. 43). Professional development that enables teachers to develop new skills should provide opportunities to study the rationale of the new practice, provide opportunities to see it in action, and establish opportunities to plan for implementation in their classroom. Joyce and Calhoun (2016) noted, teachers need to understand “the purpose of the professional development, the evidence supporting it, and its application to school curriculum areas” (p. 43). In addition to studying the rationale, teachers need an opportunity to see the new learning in action and have an opportunity to plan for practice to successfully implement the new learning (Joyce & Calhoun, 2016). For teachers to learn about CRT, they must have time to study why CRT methods are imperative in today’s classrooms, what it looks like and sounds like in classrooms, and how practices can be applied across the curriculum.

With the increase of ELLs in classrooms, more teachers are finding themselves responsible for teaching academic content to both native English-speaking students and ELLs in the same classroom. Kim et al. (2014) argued, “teacher education programs, often structured to respond to state control on what to teach to pre-service teachers, frequently do not require pre-service teacher programs to prepare candidates for teaching ELLs” (p. 229). According to a survey conducted by Walker, Shafer, and Iiams (2004), “87% of 422 mainstream K-12 classroom teachers did not receive any training in ELL education” (p. 154). Thus, many

educators of ELLs “have to depend mainly on their own, often insufficient, knowledge gained through daily work with students” (Khong & Saito, 2014, p. 214).

While Alvin ISD provides an onboard training program for teachers of ELLs with sheltered instruction and creating language-rich classrooms, there is no platform to ensure CRT approaches to planning, instruction, and assessment practices. This issue stems from gaps in the pre-service training of teachers before they are employed in Alvin ISD. Siwatu (2011) emphasized this point, “Because efforts to prepare culturally responsive teachers are fairly recent, there is the unfortunate possibility that prospective teachers may graduate without being exposed to the practices of culturally responsive teaching during their coursework and field experiences” (p. 360). This includes CRT approaches for classroom management, as much as it should include instructional strategies, and unfortunately, teachers are inadequately prepared (Aceves & Orosco, 2014). According to Lew and Nelson (2016), “In light of cultural differences, individual cultures must be considered when planning classroom management strategies” (p. 7). A culturally responsive teacher should understand assessment practices, purposes, and usage, and the importance of a balanced classroom assessment system to monitor diverse student learning (Stiggins, Arter, Chappuis, & Chappuis, 2006, as cited in Lew & Nelson, 2016).

In Alvin ISD, teachers receive training on language teaching, but little training on CRT. Turgut et al. (2016) believed, “Teachers who lack specialized knowledge, skills, and instructional strategies to work with ELLs might teach ELLs in ways that are ineffective or even choose to either consciously or subconsciously ignore these students in their classrooms” (p. 293). Rubinstein-Avila and Lee (2014) focused on attitudes and perceptions of secondary teachers toward ELLs. Rubinstein-Avila and Lee reported, secondary teachers “feel ill-prepared

to scaffold or differentiate instruction to meet the language and academic needs of ELLs” (p. 187). These feelings could stem from the fact that most teachers have limited, if any, training in teaching ELLs (Lucas, 2011). The academic preparation of secondary teachers tends to focus on content in a particular subject area rather than on language development for diverse learners. Rubinstein-Avila and Lee (2014) found that “teachers across studies expressed feeling overwhelmed and burdened and showed mixed feelings about undertaking professional development (which usually occurs after hours and often with no monetary compensation) to enhance their knowledge base” to support ELLs (p. 189). Based on their findings, researchers called for “greater collaboration between university prep programs and local school districts to support new and seasoned secondary teachers’ effectiveness in teaching ELLs” (Rubinstein-Avila & Lee, 2014, p. 189-190). Collaboration between prep programs and school districts must improve to better equip secondary teachers to meet the needs of ELLs.

At the classroom level, researchers called for teachers to be trained in CRT approaches that would engage ELLs in collaboration and active participation. Engaging approaches to support ELLs include scaffolding, providing opportunities for students to work and communicate with peers, utilizing small group instruction, providing a multitude of opportunities to check for understanding, and using English captions, when appropriate (Kim et al., 2015; Lopez & Iribarren, 2014; Rhodes, 2013). Aceves and Orosco (2014) agreed to this call to action:

To ensure the academic achievement of diverse learners in urban, rural, and suburban communities across the United States, institutions of higher education and school districts must provide a rigorous continuum of ongoing PD to support beginning and experienced teachers in their understanding and implementation of culturally responsive teaching practices. (p. 22)

Understanding the vast array of culturally responsive pedagogy, teacher behaviors, and call to social justice action are only the beginnings of understanding CRT practices. Monitoring the

implementation of CRT practices is equally as important when teachers are reflective practitioners and schools have systems in place to determine effectiveness of such practices.

Conceptual Framework Discussion

This study is supported by Ginsberg and Wlodkowski's (1995) MFCRT, which was originally designed for the higher education classroom. This framework is based on theories of intrinsic motivation and is the conceptual framework for this study. Within this framework, "Pedagogical alignment, the coordination of approaches to teaching that ensure maximum consistent effect, is critical. The more harmonious the elements of teaching are, the more likely they are to evoke, encourage, and sustain intrinsic motivation" (Ginsberg & Wlodkowski, 1995, p. 19). Researchers suggest motivation is inseparable from culture. Rhodes (2017) posited that "culturally responsive teaching increases the intrinsic motivation of students of non-dominant cultural groups" (p. 46). Ginsberg & Wlodkowski (2009) described the original design "as a tool for continual reflection" (p. 39). This tool will help teachers examine their teaching practices to improve their pedagogical approach to become more cultural responsiveness (Rhodes, 2017).

The MFCRT consists of four motivational conditions that the teacher and students mutually create. First, teachers work to *establish inclusion* by creating an environment where students and teachers feel respected. Rhodes (2017) asserted, "Teaching practices that use cooperation and equitable treatment of all learners reflect the element of establishing inclusion" (p. 46). According to Ginsberg and Wlodkowski (2009), "Practitioners establish inclusion through using "norms and practices that are woven together to create a learning environment in which learners and teachers feel respected and connected to one another" (p. 34). In this way, they reflect respect and connectedness.

Second, teachers *develop attitude* by creating positive learning experiences through valuing personal relevance and student choice. Rhodes believed, students develop a positive attitude toward new learning when “teachers build on students’ personal experiences and knowledge by allowing them to make choices throughout the learning process” (p. 7). The culturally responsive teacher addresses the relevance within the learning environment.

Third, teachers *enhance meaning* in the classroom by valuing diverse student perspectives. According to Wlodkowski and Ginsberg (1995), culturally responsive teachers enhance meaning in their classrooms by “creating challenging, thoughtful learning experiences that include student perspectives and values” (p. 19). Rhodes found that teachers enhance meaning for students when they encourage students to “engage in deep reflection and critical inquiry, such as role-plays and simulations” (p. 46).

Lastly, teachers *engender competence* through the idea that students are capable of learning something valuable and meaningful (Wlodkowski & Ginsberg, 1995). Rhodes (2017) claimed that practices that engender competence “show the learner evidence of his or her learning” (p. 7). Performance-based assessments along with self-assessments are important pieces of evidence to show progress towards learning goals. According to Ginsberg and Wlodkowski (2009), utilizing self-assessments is essential to student ownership of their learning and engendering competence.

For diverse student populations, engagement and intrinsic motivation go hand in hand. Ginsberg and Wlodkowski (1995) stated, “When students can see what they are learning makes sense and is important, their intrinsic motivation emerges” (p. 18). Student engagement will dramatically increase when the relevance is made apparent and they want to continue learning. Ginsberg and Wlodkowski’s (1995, 2009) MFCRT best fits this study because this motivational

framework provides away for teachers to create intrinsically motivating conditions in their classrooms.

Summary

In sum, the examination of the issues concerning CRT approaches in the secondary classroom has significant implications for ELLs. In Alvin ISD, teachers receive extensive training and ongoing support with language teaching of ELLs without a holistic understanding of CRT. Even more important than understanding CRT is the self-reflection for teachers to confront personal and pedagogical beliefs to become culturally responsive.

Chapter 3 focuses on the quantitative methodology of the study.

Chapter 3: Research Method and Design

The primary objective of this study was to investigate CRT training program effectiveness on teachers' attitudes toward and perceptions of CRT in Alvin ISD. I utilized a program evaluation study design with the use of a validated survey that collected information on educators' attitudes, perceptions, and understanding of CRT practices in diverse learning environments. This study aimed to support teachers in understanding and empathizing with ELLs in Alvin ISD by addressing the following research questions:

Q1. Is there a statistically significant difference between secondary teacher perception of RT before and after participation in a CRT training intervention?

H₀. There is no statistically significant difference in teacher perception of CRT before and after participation in a CRT training intervention.

H₁. There is a statistically significant difference in teacher perception of CRT before and after participation in a CRT training intervention.

Q2. Is there a statistically significant difference between secondary teacher attitude toward CRT before and after participation in a CRT training intervention?

H₀. There is no statistically significant difference in teacher attitude toward CRT before and after participation in a CRT training intervention.

H₁. There is a statistically significant difference in teacher attitude toward CRT before and after participation in a CRT training intervention.

This chapter describes the quantitative research design and method, along with the rationale for this method. I will discuss population, sampling, the survey instrument, quantitative data collection procedures, and analysis procedures. Ethical considerations will follow,

including assumptions, limitations, and delimitations. Finally, I will present a summary of this chapter and a preview of Chapter 4.

Research Design and Method

The purpose of this study was to investigate teacher attitudes and perceptions to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention. A quantitative survey design allowed me to use objective research methods to evaluate participants' responses.

Johnson and Onwuegbuzie (2004) noted that quantitative research has many advantages, such as precise data, quick data collection, less time-consuming data analysis, and increased credibility.

According to Creswell (2018),

In quantitative research, describing a trend means that the research problem can be answered best by a study in which the researcher seeks to establish the overall tendency of responses from individuals and to note how this tendency varies among people. (p. 51)

As the quantitative researcher, I tried to generalize findings to a population of secondary teachers in Alvin ISD to determine the effectiveness of an in-service CRT training program.

Robson, Shannon, Goldenhar, and Hale (2001) asserted, "To clearly demonstrate intervention effectiveness, it is almost mandatory to use quantitative techniques" (p. 12). In this study, I investigated the effectiveness of a CRT training intervention to determine whether participation in the training had the intended effect. I studied if teachers who participated in the intervention had improved attitudes toward and perceptions of CRT practices and teaching ELLs, which was the intended effect (Robson et al., 2001).

A survey research design with the quantitative instrument was appropriate for this study. According to Creswell (2018), "Survey research designs are procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to

describe the attitudes, opinions, behaviors, or characteristics of the population” (p. 376).

Creswell also explained that the usual goal of a survey is to describe a population. In this study, the goal of the survey was to collect the attitudes toward and perceptions of CRT from the participants before and after a CRT training intervention.

To investigate the effects of CRT training on the attitudes and perceptions of secondary teachers in Alvin ISD, I conducted a quantitative program evaluation study using a quasi-experimental research design. According to White and Sabarwal (2014), “Quasi-experimental methods that involve the creation of a comparison group are most often used when it is not possible to randomize individuals or groups to treatment and control groups” (p. 2). A quasi-experimental research design allowed me to “represent a means of compromising between the practical restrictions of workplaces and the rigour required for demonstrating intervention effectiveness” (Robson et al., 2001, p. 13).

Like experimental design, quasi-experimental designs can test hypothesis aimed to determine if changes in one variable cause a change in another variable. Unlike experimental design, a quasi-experimental design does not employ random assignment (White & Sabarwal, 2014). This study utilized a mixture of self-selection and administrator selection to assign teachers into the experimental group. I first asked participants if they were available for the training intervention. In this way, the participants self-selected to be eligible for the experimental group. I then made final assignments into the experimental group using a list randomizer.

White and Sabarwal (2014) explained, “Quasi-experimental designs identify a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics” (p. 1). In this study, I attempted to capture what would have been

the outcome with the intervention not implemented in the comparison group. The data were compared with the experimental group to determine if a statistically significant difference existed to evaluate intervention effectiveness.

This quantitative program evaluation study focused on high school teachers' attitudes toward and perceptions of CRT practices and how these may change over time as a result of participation in a training intervention, as measured with a validated instrument before and after participation in the professional development intervention. Specifically, it was used before and after training intervention to examine teacher perceptions and attitudes toward CRT and how teachers related to and understood ELLs to engage them in increasing academic achievement effectively. Two variables were constructed: perception of CRT and attitude toward CRT. Using the previous definitions of these variables, items from the survey were coded to construct each construct. Items 1, 4, 5, 7, 10, 12, 13, and 16 correlated to attitude toward CRT, and Items 2, 3, 6, 8, 9, 11, 14, and 15 correlated to perception of CRT.

The findings will hopefully lead to improved understanding of teachers' attitudes and perceptions of using CRT practices in diverse learning environments. By supporting their behaviors through in-service training, teachers "have the idea of a new system of behaviors that is attached by a recognized situation in which the new system may be displayed" (Suleiman, Dassanayake, & Othman, 2017, p. 613). I supported the cognitive transfer of knowledge after the training by providing teachers with an opportunity to have CRT practices explained and modeled. Furthermore, teachers had time to reflect on what culture means to them and how implicit bias may play a role in the expectations of their students. According to Suleiman et al. (2017), "The nature of the transfer of training shows several ways of conveying knowledge about behavior and ascertained the relationship between personal characteristics and events in the work

environment” (p. 613). By providing support in the 3-week training, I aimed to support learning transfer at the conclusion of the training intervention.

Learning transfer is dependent on several variables. Training design, the attitudes of the peers and trainer, and teacher motivation all play a role in the ability of the teacher to transfer understanding of CRT practices into the classroom (Suleiman et al., 2017). Suleiman et al. (2017) argues, “For employees to transfer the skills and knowledge learned, the trainee must have elements of transfer motivation” (p. 613). In other words, the desire of teachers to apply and use the knowledge and skills delivered in the training program plays a significant role in the type of practices and to what degree they are implemented into the classroom.

This comparison-group, quasi-experimental study was based on a motivational framework drawing on research on CRT to provide a holistic and culturally responsive way for teachers to create motivational conditions in their classrooms to support the academic, cultural, and linguistic learning needs of ELLs. This study incorporated teacher surveys pre and post in-service professional development. Teachers who participated in the training were the experimental group, while teachers who only participated in the pre- and post-intervention surveys were the comparison group. The pre-test served as the basis of comparison in the absence of the intervention. After the training intervention was completed with the experimental group, both teacher groups completed the post-test survey. I then determined the program effects of the CRT intervention on attitudes and perceptions of teachers by determining if the data were statistically significant.

Rationale

Because it is not feasible for all experiments to be conducted with a highly controlled research design, quasi-experimental designs can be executed without one or more of the aspects

of the classical experimental design. “A classical experimental design includes three key sets of components: a pre- and post-test, an independent and dependent variable, and both a control and an experimental group” (“Quasi-experimental research designs,” 2001, para. 1). In education, this type of design is not always possible due to the content or the context in which the study takes place. For these reasons, a quasi-experimental design was the most appropriate design for this program evaluation study.

Cholewicki-Carroll (2013) stated, “Quasi-experimental research incorporates many characteristics of the experimental design, but it does not include random assignment” (para. 2). Because teachers self-selected if they participated in the intervention based on interest and availability, I was unable to randomly assign teachers to control and experimental groups; therefore, the quasi-experimental study design was most appropriate because of the comparison group rather than the control group formed by random assignment.

According to Muijs (2011), “In order to retain the advantages of experimental designs (control over the environment) as much as possible, it is crucial to ensure that the experimental and comparison groups are as similar as possible” (p. 23). This reduced selection threat, which occurs “when the apparent effect of the intervention could be due to differences in the participants’ characteristics in the groups being compared, rather than the intervention itself” (Robson et al., 2001, p. 40). In this study, I controlled factors that affected study outcomes, such as including only certified high school teachers who had completed the initial or the refresher sheltered instruction training, which includes the seven steps.

I inquired about participant availability for the training intervention. From their responses, I randomly sorted the available participants to the comparison or the control group using a list randomizer. The experimental group participated in the CRT training intervention,

and the comparison group did not participate in the intervention; the comparison group only completed the pre- and post-surveys, keeping them as similar to the experimental group as possible without the intervention variable. This was another way I controlled for unknown confounding variables between the two groups.

Program evaluation study design assembles the teachers' thoughts and ideas around the professional development they received, specifically, whether or not teachers perceived that the culturally responsive professional development intervention improved their ability to work with ELLs. I compared pre- and post-survey results from the teachers who participated in the CRT training program and those who did not participate in the intervention. Muijs (2011) explained, "If we find programme effects, we can at least be confident that these work in real schools and classrooms with all the complexity, rather than just in the laboratory setting" (p. 26). This made this design an acceptable way of evaluating this training program in the high school setting in Alvin ISD.

Population

Secondary teachers in Alvin ISD from the three comprehensive high schools were the focal point of this quantitative study. I obtained permission from the superintendent of Alvin ISD and the principals of each high school to administer the survey to the secondary ESL and ELL teachers on the three comprehensive high school campuses in the district. I refrained from using the names of the high school campuses and used unique numerical identifiers to gather information from teachers to keep all data sources anonymous.

I utilized a list from the ESL department to obtain the names of all high school sheltered teachers who fit the necessary criteria for participation in the study. Those who had not attended the district sheltered instruction training were removed from the study to keep the comparison

group as controlled as possible, since participants in the intervention were self-selecting before randomization. Furthermore, teacher certifications were verified by the State Board for Educator Certification website to ensure all participants held valid certifications, as required by TEA.

After examining teacher information, I noted that one teacher was not certified for the particular classroom assignment he was assigned and three teachers were not sheltered instruction trained by the district, so there were 85 high school teachers in Alvin ISD who fit the criteria for the study. Of the 85 eligible teachers, 61 teachers completed the survey and 32 of the teachers were available for the training intervention. Using a list randomizer, I randomly selected half (the first 16 names) to participate in the training intervention. Of these 16 teachers, three did not attend a single session and one teacher only attended the first training session; therefore, I used the data from the 12 teachers who attended all three training sessions and completed both the pre- and the post-survey to evaluate the training intervention.

Quantitative Sampling

An appropriate study sample size and method of selection is critical to the success of any program evaluation. In this study, the workplace intervention involved a fixed number of employees meeting the predetermined criteria. Because the number was fixed, I could not set the power in advance to determine program effectiveness; instead, I determined what power would exist (Robson et al., 2001). Several components went into the calculation of power, including the effect size, the sample size, and how much variability there was within the sample.

According to the Office of Assessment of Teaching and Learning at Washington State University (2018), a population size of 50 participants should have a sample size of at least 23 teachers for +/- 15% sampling error, a sample size of at least 33 teachers for a +/- 10% sampling error, or a sample size of at least 44 teachers for a +/- 5% sampling error. I sent three reminder emails to

participants to achieve a sample size of 61 teachers, for an 85% confidence level, with a 5% margin of error.

Because the study was quasi-experimental and focused on secondary teachers meeting the predetermined criteria, I employed non-random sampling. Non-random selection is “when selection is based on expert knowledge of the population” (“Nonrandom sampling,” 2014, para. 1). This sampling was most appropriate for the study because it was not applicable to all teachers in the study, only to those who were available to participate in the training and then were sorted into the comparison and experimental groups.

I was aware that this type of sampling is prone to researcher bias, so I employed various methods to control this bias. First, attitudes and perceptions of teachers may vary from one secondary campus to the next. By reviewing data sources from multiple campuses, I reduced interviewer effects and bias. According to Tan (2016), “Bringing in multiple datasets allows users to have a full view of the business and conduct analysis across multiple variables” (para. 2). This view allows the researcher to have a bigger picture of the organization. Furthermore, Tan reasoned, by “combining information from different campuses in a single, overarching data environment, organizations empower people to conduct wide-ranging analyses and discover unexpected correlations and relationships in their data” (para. 4). Focusing on a specific group of secondary teachers who all held valid teaching certificates and received sheltered instruction training allowed me to better understand their perspectives of CRT.

Quantitative Instrument

The purpose of this study was to investigate teacher attitudes and perceptions to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention on the two constructs,

attitude toward CRT and perception of CRT. Tools for this data collection included a pre- and post-survey surrounding the CRT training intervention.

I obtained permission to use and slightly modify a validated survey instrument from Dr. Rhodes of East Carolina University (see Appendix A). The Culturally Responsive Teaching Survey (CRTS) is a self-assessment survey created by Dr. Rhodes in 2017 to examine CRT practices of adult English for speakers of other languages (ESOL) teachers (see Appendix B). The CRTS survey examined the self-reported frequency of 17 CRT practices (Rhodes, 2017). The four elements of CRT were the theoretical foundation of the survey instrument.

The survey instrument was developed in different phases. Rhodes (2017) used two panels to assess instrument validity. The first validation panel included individuals with extensive experience teaching adult ESOLs, who “evaluated the items for clarity and relevance to second language teaching” (Rhodes, 2017, p. 46). The second validation panel included experts of CRT, who “also evaluated the items for relevance to the theories of adult learning and CRT pedagogy” (Rhodes, 2017, p. 46). When drafting the survey instrument, items were “ranked on a five-point scale and items with means of 3 or below were deleted, while 2 items were reworded or combined” (p. 46). With these survey development methods, the work of the two expert panels reduced the original pool of 27 items to 17 CRT teaching practices.

The final phase of the survey development included “cognitive interviewing and a pilot study with approximately 100 adult ESOL teachers” (Rhodes, 2017, p. 46). This phase of development focused on the cognitive processes that respondents used to answer the survey questions for Rhodes to uncover any thought processes in answering the questions that may otherwise be hidden. For Rhodes (2017) to “assess the reliability of the pilot survey, Cronbach’s Alpha Coefficient was calculated and deemed acceptable at .752” (p. 46). Based on appropriate

levels of internal consistency, all 17 items were retained for the final version of the survey instrument.

This instrument is appropriate for secondary teachers of high school students except for one item. For this study, I eliminated Item 10 from the survey. Item 10 reads, “I encourage students to speak their native languages with their children” (Rhodes, 2017, p. 52). While secondary students at the high school level may have children, the percentage is so low it was not included in the survey. Removal of this item should not impact the reliability or validity of the survey instrument. In Rhodes’ (2017) original design, the participants reported their frequency of use for the 17 teaching practices on a 5-point scale (never, rarely, sometimes, usually, and always). Initially, conducting the survey helped me gain an understanding of how the participants saw the problem (Kirytopoulos, 2015). Surveying the CRT training intervention helped me to measure the effect of the intervention on the attitudes and perceptions of secondary teachers on CRT.

Validity. According to Rhodes (2017), “Findings suggest that the CRTS is a reliable uni-dimensional measure, whose scores demonstrate convergent validity through positive correlation with multicultural teaching knowledge and skills” (p. 51). Rhodes asserted, the CRTS provided “a useful tool to expand understanding of teachers’ strategies to incorporate students’ cultural identities into the classroom in the presence of linguistic and ethnic diversity” (p. 51). The results from the evaluation of the survey instrument provided “support for the reliability and validity of the CRTS” (Rhodes, 2017, p. 51).

It is essential to recognize the likelihood of researcher bias in quasi-experimental research design. Because random sampling was not initially used, it was important to note that a complete representation of the teaching population was not represented. One issue of external

validity in this study may be the small sample size depending on the response rate and availability of teachers to participate in the program. The intent of this study was to explore program effectiveness with CRT practices for secondary teachers in Alvin ISD. Findings only relate to these study participants and the secondary teachers in the district who have received the sheltered instruction training provided by the district.

Quantitative Data Collection

Pre-intervention. I emailed all teachers fitting the criteria at the beginning of the study and before they participated in any in-service training. Teachers had the opportunity to ask questions and seek additional information prior to the start of the study. I explained the study purposes and informed the teachers that their participation was voluntary and they were not under any obligation to participate. I gave all teachers the opportunity to decide whether or not they agreed to participate in the study. By beginning the survey, teachers agreed to participate and provided their informed consent. All participants understood that all personal data and information gathered for the study would remain confidential and anonymous. The Alvin ISD bilingual department provided a \$100 stipend to all teachers who completed the full training intervention program. I sent reminder emails to ensure a large enough sample size was obtained. Data obtained from the pre-intervention survey served as the baseline data for teachers. Participants available to complete the training program were randomly grouped into the experimental and comparison groups.

During intervention. To respect teachers' time and other obligations, the study followed a 3-week plan in which three professional development sessions were completed within three weeks. The training was delivered by the secondary ESL instructional coaches in Alvin ISD.

Both coaches have extensive training on the seven steps and the needs of sheltered instruction teachers at the secondary level.

In part one of the training intervention, teachers learned about and discussed culture, the cultural continuum, and cultural norms. In part two of the training intervention, teachers discussed cultural assimilation and acculturation and watched the video *The Good Lie* (2014). In part three of the training intervention, teachers debriefed from the movie and discussed culture shock, bias and implicit bias, and how to apply CRT methods in their lessons. Teachers in the intervention became reflective practitioners who questioned their own personal biases and practices, explored evidenced-based strategies, and discussed relevant topics and critical issues affecting our ELLs. The instructional coaches were also available to supplement the training intervention with other types of support throughout the intervention period, including additional coaching sessions, email support, and additional resources, if requested by a member of the experimental group.

This design supported teachers either reluctant to try something new or those willing to try something new but did not possess the skills to understand and implement CRT practices. Both of these challenges may have impacted teacher attitude toward and perception of CRT, so the intervention attempted to support teachers in trying something new, while valuing the inclusion of CRT practices in lesson design and delivery through ongoing discussions over the 3-week period.

Post-intervention. At the conclusion of the 3-week in-service training, all teachers received the survey again electronically to complete the post-survey. The survey was open for one week. Those who participated in the training sessions (experimental group) and those who did not participate in the training sessions (comparison group) completed the survey, so there

were post-intervention data collected from all teachers to determine overall program effectiveness.

Quantitative Data Analysis

The statistical analysis included both descriptive and inferential methods. I used descriptive statistics methods to present and summarize the data. Descriptive statistics analysis included computing measures of central tendency (using mean) and dispersion (using standard deviation and range) to summarize the variables of perception and attitude toward CRT. I computed the perception and attitude toward CRT by taking the mean of the relevant individual scale items reflecting perception and attitude toward CRT, respectively.

The main objectives of the study were to test if there was a significant difference between pre-intervention and post-intervention scores of perception and attitude toward CRT and to test the significance of the effect of participation in the intervention. The study design had both within subject repeated measures (pre- and post-intervention) and between subject effects (participation in intervention or not). Therefore, I used repeated measures analysis of variance (ANOVA) to test the research hypothesis of significance of effect of the intervention and if there was a significant difference between pre- and post-intervention measurements. According to Cooper and Cooper (2003), “ANOVA is by far the most powerful to test for the statistical significance between two or more groups of the mean values of some characteristic because it is not limited to comparing the means of only two groups” (para. 1). The model for this study included measurement of perception score at pre-intervention and at post-intervention as within subject factor and a categorical variable of assignment into intervention or no intervention as the between subject factor.

I applied repeated measures ANOVA using repeated measures general linear model form of the linear model. Repeated measures ANOVA model does not require the standard assumption of independence of observations owing to repeated measurement of the same characteristic on the same subjects (pre- and post-intervention). However, it requires the assumption of equal error variances and the assumption of sphericity to be tested. Levene's test was used to test for the assumption of constant error variance of the dependent variable. Field (2006a) described Levene's test as a "test of the assumption of homogeneity of variance that tests the hypothesis that the variances in different groups are equal" (para. 1). In other words, the difference between the variances is zero. According to Fields (2006a), "A significant result indicates that the variances are significantly different; therefore, the assumption of homogeneity of variances has been violated" (para. 1). I used Levene's test to determine if the assumption of constant error variance was satisfied at both pre-intervention and post-intervention.

Sphericity assumption indicates that the variances of the differences between all combinations of the related conditions and time points are equal (Field, 2006c). I tested the assumption of sphericity using Mauchly's test, which tests the significance of departure from the assumption (Hair, Black, Babin, & Anderson, 2010). If results of Mauchly's test indicate that sphericity assumption is not satisfied, then the "Greenhouse-Geisser correction must be applied to the degrees of freedom of the F-ratio in repeated measures analysis of variance" (Field, 2006c, para. 1). According to Fields (2006b), this test works by "comparing the variance-covariance matrix of the data to an identity matrix; if the variance-covariance matrix is a scalar multiple of an identity matrix then sphericity is met" (para. 1). All statistical tests were performed at .05 level of significance. I used the Statistical Package for the Social Sciences (SPSS) software, Version 22.0, to perform all statistical analysis.

Ethical Considerations

I followed Institutional Review Board (IRB) guidelines and requirements to receive approval from Abilene Christian University's IRB before data collection. Informed consent in this study covered the following areas: the purpose of collecting this information, who the information is for, how it will be used, and how responses were handled, including confidentiality (Patton, 2015).

Because the study utilized human subjects, one method to ensure I maintained reliability and validity involved the use of confidentiality. According to Patton (2015), "Because the basic researcher is interested in truth rather than action, it is easier to protect the identity of informants or study settings when doing scholarly research" (p. 343). I used methods that involved "obtaining informed consent from participants, protecting them from harm, and ensuring confidentiality" (Lodico, Spaulding, & Voegtler, 2010, p. 18). Each participant was promised that teacher names and names of the high school campuses were omitted to ensure confidentiality. Participants created a unique numerical ID that was used to match their pre- and post-survey results for data analysis.

I was clear, honest, and transparent about the purpose of the quasi-experimental study. Each participant received a full explanation of the study, and I safeguarded collected data to ensure the integrity of the data in accordance with IRB requirements (Patton, 2015). I approached participants via email only after approval to do so was received from the superintendent and the high school principals of Alvin ISD. Furthermore, I made it clear to participants that involvement was voluntary and there was no adverse impact on their job if they did not participate in this study.

Data access and ownership was another ethical consideration for this study. I provided each participant with an opportunity to review the validity of the survey data (Patton, 2015). This helped establish credibility and build a positive relationship between the researcher and the study participants.

Assumptions

I assumed that removing Item 10 from the CRTS did not impact the reliability or the validity of the instrument. There were also assumptions made about the honesty of respondents. I assumed that participants who completed the survey were truthful and honest in their responses to questions. Finally, I assumed the data collected in the study accurately portrayed the participant's attitude toward and perception of CRT.

Limitations

Limitations of the study included the geographic parameters. This study included only one school district in Brazoria County, Texas. The participants were limited to three of the four high schools in Alvin ISD, so the number of participants may be below the preferred sample size for application of findings. Furthermore, teachers who were reluctant to learn more about CRT or try something new may not have volunteered to participate in the study, which may further decrease the sample size. The small sample size might also increase sampling error. Additionally, participation in the sample was limited to high school teachers of ELLs who had been previously trained in the district's sheltered instruction training. Because of these limitations, participation in the data collection was not entirely random, and this may have increased researcher bias and contaminated effect size.

The clustering of participants may have increased contamination between the experimental and the control groups. Members of the two groups may have shared experiences

over the course of the 3-week intervention, which may have impacted the attitudes and perceptions of those who did not participate in the training. When evaluating the data, according to Rhoads (2011), this contamination may “make the treatment group and the control group look more similar, on average, than they are” (p. 78).

Additionally, the findings from this study may not be generalizable to any group of teachers other than those who have also been trained in the district’s sheltered training program. Moreover, teachers may not respond to the survey questions in an honest manner. Participants might have selected responses that represent best practices instead of actual practices. Also, the research does not provide additional qualitative evidence, such as observations or interviews, to further support the attitudes toward and perceptions of the teachers.

Delimitations

The boundaries of this study included three of the four high schools in Alvin ISD, the largest school district in Brazoria County, Texas. One high school was not included because it is not a comprehensive high school. The three high schools that are comprehensive and serve the highest percentage of high school students in the district served as the data sources for this study.

From these three high schools, only teachers who were trained were invited to participate, thus controlling variables for the study. Some teachers were not included in this invitation because they lacked the appropriate teacher certification, they did not teach ELLs, or they had not received the sheltered training. It was essential that the attitudes and perceptions of the participants being studied were as controlled as possible, so I could identify the statistical significance of the studied variables.

Summary

Using quantitative, quasi-experimental research design was not only appropriate for the study, but it was the best choice for answering the study's research question. The purpose of the study was to understand secondary teachers' attitudes toward and perceptions of CRT to determine how these may change over time with exposure to CRT in-service training. All measures used and all data collected provided evidence to answer the quantitative research questions. The data collection procedures detailed in this chapter ensured that the data gathered accurately depicted the attitudes and perceptions of teachers before and after the in-service training. The descriptive data analysis methods used to ensure the interpretation of the data was reasonable in its reflection of the data and relates to current research of CRT methods and the motivational framework.

Chapter 4 provides a detailed account of the results based on the data collected and analyzed.

Chapter 4: Results

This study aimed to support secondary teachers in understanding and empathizing with ELLs. The goal of this research was to contribute to fully equipping teachers in Alvin ISD to respond to ELLs academically, culturally, and linguistically. The purpose of this study was to investigate teacher attitudes and perceptions to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention.

This chapter reports the findings of each research question by reporting the statistical results, along with brief interpretations, tables, and figures, as appropriate. The research questions were the driving influences motivating the study; they focus on teacher attitudes and teacher perceptions about CRT. Chapter 3 identified the constructs of the variables to determine if a statistical significance exists in the two constructs, perception and attitude, with and without participation in a CRT training intervention program.

I used descriptive statistics analysis and repeated measures ANOVA methods with SPSS software to analyze the data. The two main variables in the study were perception and attitude toward CRT. The two variables were computed based on the corresponding individual items reflecting perception and attitude toward CRT, respectively.

Table 1 presents descriptive statistics of the main variables of perception and attitude toward CRT at pre- and post-intervention. The data were balanced and consisted of 55 scores at pre- and post-intervention for both perception and attitude toward CRT. The results show that the mean of perception of CRT at pre-intervention was lower than that at post-intervention (2.611 vs. 2.782, respectively). The standard deviation of perception of CRT was also lower at pre-intervention compared with post-intervention (0.789 and 0.899, respectively). The results

showed that the range of perception of CRT at pre-intervention was narrower than that at post-intervention (1.13 to 4.62 and 1.13 to 5.00, respectively). Similar patterns of results can be seen when comparing pre- and post-attitude scores toward CRT. The mean of attitude toward CRT at pre-intervention was also lower than that at post-intervention (2.834 vs. 2.980, respectively). The significance of these apparent differences in means between pre- and post-intervention were tested using the within subject effect of repeated measures ANOVA (in the later sections of the results report). The standard deviation of attitude toward CRT was also lower at pre-intervention compared with post-intervention (0.658 vs. 0.798, respectively). The results showed that the range of attitude toward CRT at pre-intervention was narrower than that at post-intervention (1.75 to 4.50 vs. 1.75 to 5.00, respectively).

Table 1

Descriptive Statistics of Perception and Attitude toward CRT at Pre- and Post-Intervention

Variable	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>
Perception of CRT (pre-intervention)	55	1.13	4.63	2.611	0.789
Perception of CRT (post-intervention)	55	1.13	5.00	2.782	0.899
Attitude to CRT (pre-intervention)	55	1.75	4.50	2.834	0.658
Attitude to CRT (post-intervention)	55	1.75	5.00	2.980	0.798

Table 2 presents descriptive statistics of perception and attitude toward CRT by group (intervention or no intervention groups). The results show a clear trend, where the intervention group had higher means of pre- and post-perception and attitude scores than the no intervention group. The results showed that the mean pre- and post-perception of CRT were higher for the intervention group (2.916 and 3.666, respectively) than the no intervention group (2.526 and

2.534, respectively). The significance of these apparent differences in means between intervention and no intervention groups was tested using the between subject effect of repeated measures ANOVA (in the later sections of the results).

Table 2

Descriptive Statistics of Perception and Attitude toward CRT by Group

Variable	No intervention group				Intervention group			
	Mean	SD	Minimum	Maximum	Mean	SD	Minimum	Maximum
Perception of CRT (pre-intervention)	2.526	0.814	1.13	4.63	2.916	0.622	1.88	4.13
Perception of CRT (post-intervention)	2.534	0.785	1.13	3.88	3.666	0.717	2.50	5.00
Attitude to CRT (pre-intervention)	2.758	0.654	1.75	4.50	3.104	0.621	2.13	4.00
Attitude to CRT (post-intervention)	2.764	0.674	1.75	4.50	3.750	0.748	2.50	5.00

Effect of Intervention on Perception of CRT

Table 3 presents descriptive statistics of the score of perception of CRT at pre- and post-intervention and by intervention group (yes / no). I used repeated measures ANOVA to test the research hypothesis of possible significance of effect of the intervention. This model includes measurement of perception score at pre-intervention and post-intervention (as within subjects factor) and a categorical variable of assignment into intervention or no intervention groups (as the between subject factor).

Table 3

Descriptive Statistics of Perception of CRT by Period (pre and post) and Intervention Group

Variable	Intervention	Mean	SD	<i>n</i>
Perception of CRT (pre-intervention)	No	2.526	0.814	43
	Yes	2.916	0.622	12
	Total	2.611	0.788	55
Perception of CRT (post-intervention)	No	2.534	0.785	43
	Yes	3.666	0.717	12

Total	2.781	0.898	55
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Levene's test was carried out to test the assumption of homogeneity of variances, which is required before carrying out repeated measures ANOVA. The results of Levene's test indicated that the assumption of constant error variance was satisfied at both pre-intervention, $F(1, 53) = 1.400, p = .242$, and at post-intervention, $F(1, 53) = .935, p = .338$. Mauchly's test for sphericity indicates that the null hypothesis H_0 : The error covariance matrix of the dependent variable is proportional to the identity matrix must be rejected at .05 level of significance ($p < .001$). This implies that the sphericity assumption is not satisfied. Therefore, Greenhouse-Geisser test for within subject effect should be used instead of the standard ANOVA F test. Results of Greenhouse-Geisser test indicated that the null hypothesis of no significant difference in mean perception score between pre-intervention and post-intervention must be rejected at .05 level of significance, $F(1, 53) = 53.131, p < .001$. This means that there is a statistically high significant difference between pre- and post-perception of CRT scores. A medium effect size of $\eta^2 = .501$ was also found. Comparison of estimated marginal means indicated that on an average, the mean perception of CRT score at post-intervention period, $M = 3.101, SE = 0.126$, was significantly higher than at pre-intervention, $M = 2.721, SE = 0.127$ (see Table 4).

Table 4

Comparison of Marginal Means of Perception of CRT between Pre- and Post-Intervention Periods

Variable	Mean	SE	95% CI of mean perception score	
Pre-intervention	2.721	0.127	2.466	2.976
Post-intervention	3.101	0.126	2.848	3.354

Note: SE = standard error.

Test for between subject effects showed a high significant effect of intervention on perception of CRT score, $F(1, 53) = 9.438, p = .003$. Comparison of estimated marginal means indicated that the mean perception of CRT score of intervention group: $M = 3.292, SE = 0.219$, was significantly higher than that of no intervention group: $M = 2.531, SE = 0.116$ (see Table 5).

Table 5

Comparison of Marginal Means of Perception of CRT between Intervention Groups

Variable	Mean	SE	95% CI of mean perception score	
Pre-intervention group	2.531	0.116	2.298	2.763
Post-intervention group	3.292	0.219	2.852	3.731

Note: SE = standard error.

Furthermore, a significant interaction effect of period (pre- and post-intervention) and intervention group (intervention / no intervention) was found, $F(1, 53) = 50.717, p = <.001$. This indicates that the difference in mean perception score between pre-intervention and post-intervention measurements was not the same for intervention (treatment) and no intervention (control) groups. Figure 4 shows the interaction plot for perception of CRT by time and group. The figure shows that the intervention group had a much higher mean difference in perception of CRT score between pre- and post-intervention compared with the no intervention group (very small difference between pre- and post-perception of CRT scores for the no intervention group). The graph also shows that the difference in perception of CRT scores between intervention and no intervention groups was largest at post-intervention compared with the pre-intervention.

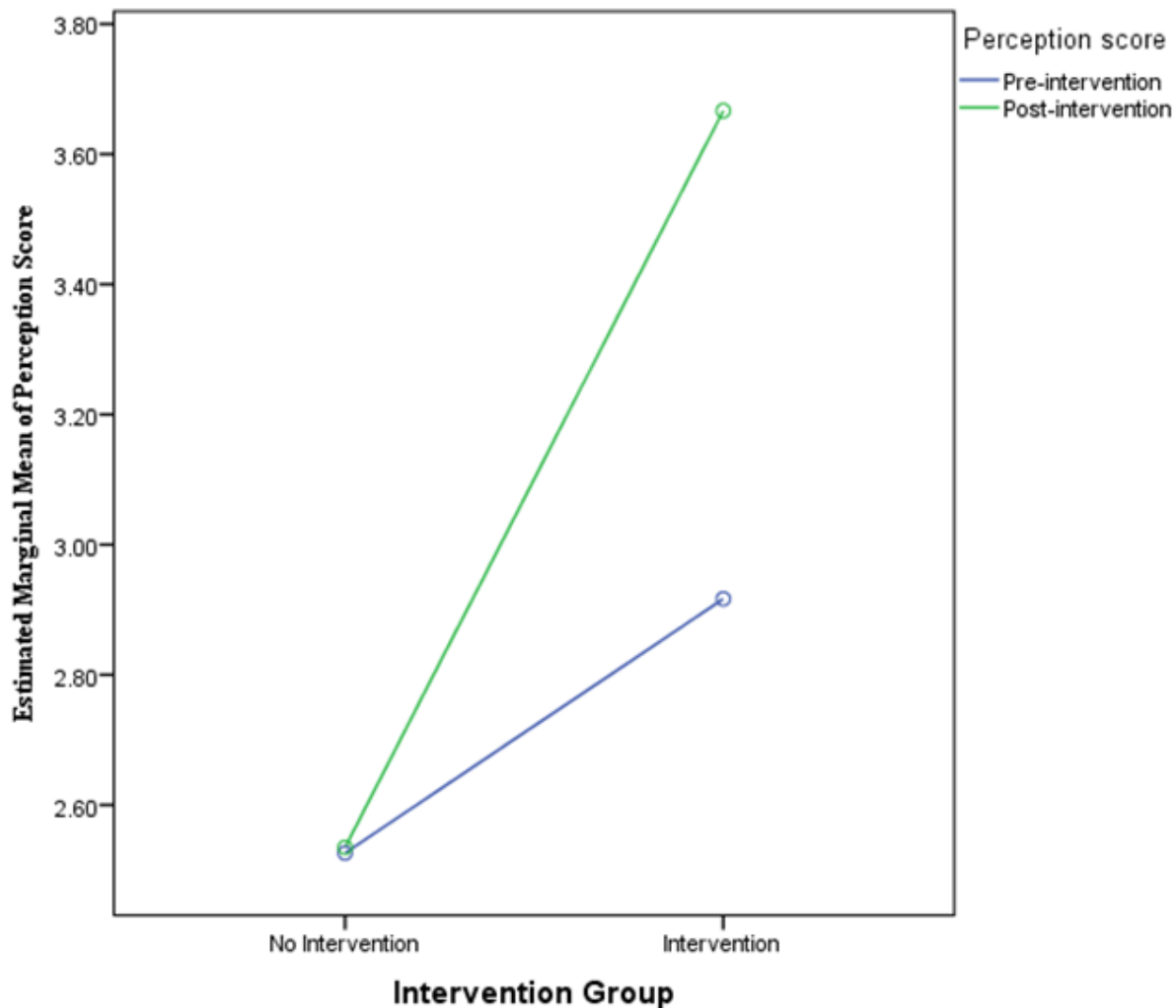


Figure 4. Means plot of perception of CRT score at pre- and post-intervention by group.

In summary, the results of within subject, between subjects' effect, and the interaction effects showed an increase in post-intervention perception of CRT compared with the pre-intervention, with higher CRT perception score for the intervention group compared with the no intervention group. This indicates that the intervention was significantly effective in increasing positive perception of CRT.

Effect of Intervention on Attitude toward CRT

Table 6 presents descriptive statistics of attitude toward CRT scores by measurement period (pre- and post-intervention) and intervention group (intervention group and no

intervention group). Repeated measures ANOVA was also used to test the research hypothesis of possible significance of effect of the intervention group between pre and post periods. This model includes measurement of attitude score at pre-intervention and post-intervention (as within subjects factor) and a categorical variable of assignment into intervention or no intervention group (as the between subject factor).

Table 6

Descriptive Statistics of Attitude toward CRT by Period and for Intervention and No Intervention Groups

Category	Intervention	Mean	SD	n
Attitude toward CRT (pre-intervention)	No	2.758	0.654	43
	Yes	3.104	0.621	12
	Total	2.834	0.657	55
Attitude toward CRT (post-intervention)	No	2.764	0.674	43
	Yes	3.750	0.748	12
	Total	2.979	0.798	55

Results of Levene's test indicated that the assumption of constant error variance was satisfied pre-intervention, $F(1, 53) = .064, p = .802$, and post-intervention, $F(1, 53) = .063, p = .802$. Mauchly's test for sphericity showed that the null hypothesis H_0 : error covariance matrix of the dependent variable is proportional to the identity matrix must be rejected at .05 level of significance, ($p = <.001$). This implies that the sphericity assumption was not satisfied. Therefore, Greenhouse-Geisser test for within subject effect should be used to test the hypothesis.

Results of Greenhouse-Geisser test indicated that the null hypothesis of no significant difference in mean attitude toward CRT score between pre-intervention and post-intervention must be rejected at .05 level of significance, $F(1, 53) = 94.122, p = <.001$. This shows that there is a high significant difference between pre- and post-attitude toward CRT scores. The effect

size of the difference was of medium magnitude, $\eta^2 = .640$. Comparison of the estimated marginal means shows that on average, the mean attitude toward CRT score at post-intervention period ($M = 3.257$, $SE = .113$) was significantly higher than that at pre-intervention ($M = 2.931$, $SE = .106$; see Table 7).

Table 7

Comparison of Marginal Means of Attitude Score toward CRT between Pre- and Post-Intervention Periods

Attitude	Mean	SE	95% CI of mean perception score	
Attitude (Pre-intervention)	2.931	0.106	2.719	3.144
Attitude (Post-intervention)	3.257	0.113	3.031	3.483

Note: SE = standard error.

Test of between subject effects comparing intervention and no intervention groups revealed a high significant effect of intervention group on attitude toward CRT score, $F(1, 53) = 820.460$, $p = <.001$. Comparison of the estimated marginal means indicated that the mean attitude toward CRT score of intervention group ($M = 3.427$, $SD = .191$) was significantly higher than that of no intervention group ($M = 2.762$, $SD = .101$; see Table 8).

Table 8

Comparison of Marginal Means of Attitude toward CRT between Intervention and No Intervention Groups

Intervention	Mean	SE	95% CI of mean perception score	
No	2.762	0.101	2.559	2.964
Yes	3.427	0.191	3.044	3.810

Note: SE = standard error.

A high significant interaction effect of measurement period (pre- and post-intervention) and intervention group (intervention / no intervention) was also found for attitude toward CRT

score, $F(1, 53) = 90.793, p = <.001$. This indicates that the difference in mean attitude toward CRT score between pre-intervention and post-intervention was not the same for intervention (treatment) and no intervention (control) groups. Figure 5 is the interaction plot showing differences between pre- and post-intervention attitude toward CRT scores for the two groups (intervention and no intervention groups). The intervention group had a higher mean difference in attitude toward CRT score between pre- and post-intervention periods compared with the no intervention group (very small difference between pre- and post-attitude toward CRT scores for the no intervention group). The difference in attitude toward CRT scores between intervention and no intervention groups was largest at post-intervention compared with the pre-intervention.

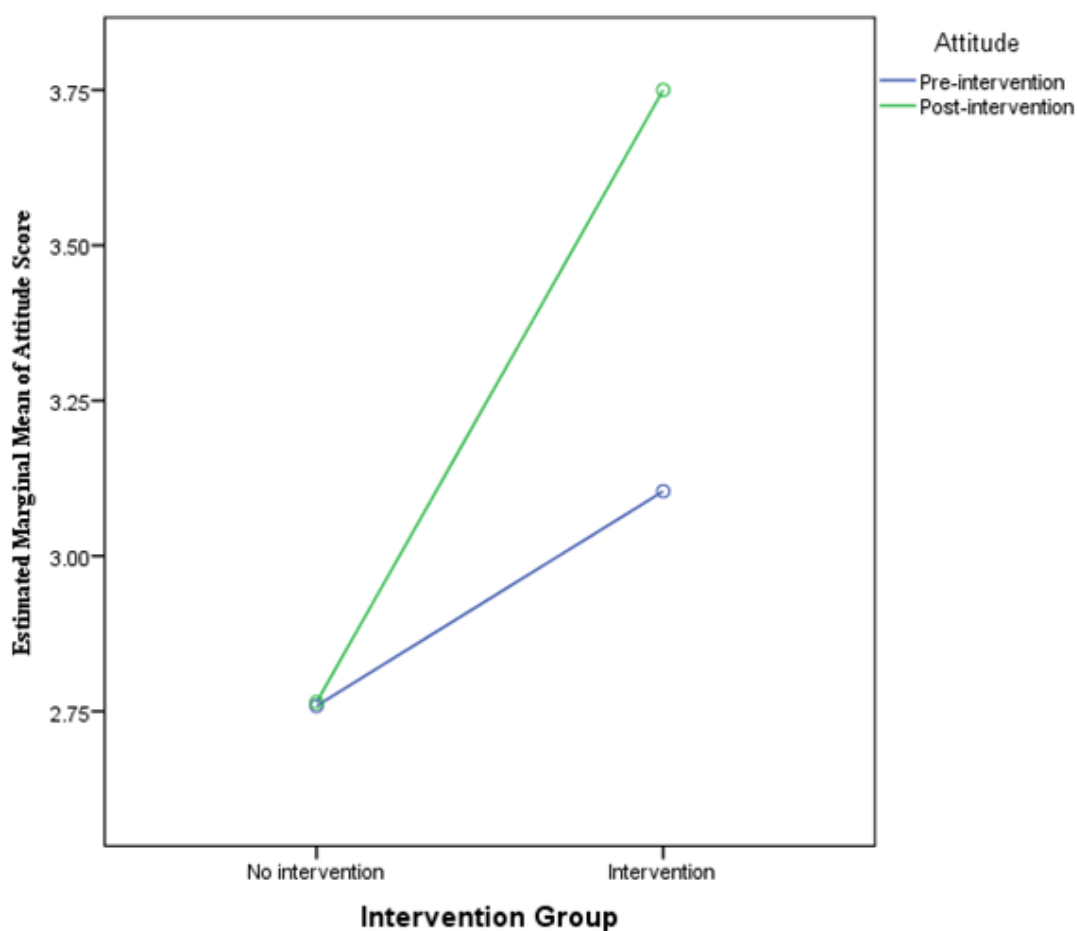


Figure 5. Means plot of CRT attitude score at pre- and post-intervention by group.

Results of within subject, between subjects' effect, and the interaction effects showed an increase in post-intervention attitude toward CRT compared with the pre-intervention. This difference was higher in the intervention group compared with the no intervention group. This indicates that the intervention was significantly effective in increasing positive attitude toward CRT.

Summary of the Results

The results of the data analysis provided strong evidence to infer that there was a statistically significant increase in teachers' perception of CRT and attitude toward CRT after participation in a CRT training intervention. Also, there was a statistically significantly higher perception and attitude score toward CRT in the CRT intervention group compared with the no CRT intervention group. The increase in CRT perception and attitude scores at post-intervention was higher in the CRT intervention group compared with the no intervention group.

The two main variables in the study were perception and attitude toward CRT. The two variables were computed based on the corresponding individual items reflecting perception and attitude toward CRT, respectively. Table 1 presented descriptive statistics of the main variables of perception and attitude toward CRT at pre- and post-intervention. The data were balanced and consisted of 55 scores at pre- and post-intervention for both perception and attitude toward CRT. The results showed that the mean of perception of CRT at pre-intervention was lower than that at post-intervention (2.611 vs. 2.782, respectively). The standard deviation of perception of CRT was also lower at pre-intervention compared with post-intervention (0.789 and 0.899, respectively). The results also showed that the range of perception of CRT at pre-intervention was narrower than that at post-intervention (1.13 to 4.62 and 1.13 to 5.00, respectively).

Similar pattern of results can be seen when comparing pre- and post-attitude scores toward CRT. The mean of attitude toward CRT at pre-intervention was also lower than that at post-intervention (2.834 vs. 2.980, respectively). The significance of these apparent differences in means between pre- and post-intervention was tested using the within subject effect of repeated measures ANOVA. The standard deviation of attitude toward CRT was also lower at pre-intervention compared with post-intervention (0.658 vs. 0.798, respectively). The results showed that the range of attitude toward CRT at pre-intervention was narrower than that at post-intervention (1.75 to 4.50 vs. 1.75 to 5.00, respectively).

Chapter 5 includes a complete summary of the findings along with a discussion of the theoretical and conceptual reason for the increase evident in the results.

Chapter 5: Discussion, Conclusions, and Recommendations

This chapter includes a reflection on the main findings of the research and how they contribute to the research problem pertaining to poor academic performance among ELLs and the need for better CRT teaching for teachers of ELLs. The first part of chapter includes an explanation of the major findings of the research and why they are important, providing a systematic explanation for the underlying meaning of the findings and their significance. After that, I consider the relation these findings have with results found in other studies. I will compare and contrast the findings of other studies in an effort to support the overall importance of this study's results. I will also highlight the ways in which these findings echo similar research. In this section, I will draw upon lessons from the literature and place the findings in the context of previous literature. Limitations will be acknowledged, focusing on issues related to the sample size and data. Finally, I will suggest avenues for future research.

Research Problem

The achievement gap for ELLs has been a problem in public schools for decades. With the rapid increase in Hispanic enrollment with Spanish-speaking students, there exists an urgent demand in public education to provide continuous professional learning for teachers. According to the 2016-2017 TAPR from TEA, ELLs in Alvin ISD scored below their peer groups in the areas of the Student Success Initiative. At the high school level, Hispanic students and ELLs in Alvin ISD both performed below their peer groups and the state average on the English I EOC, English 2 EOC, Algebra 1 EOC, Biology EOC, and U.S. History EOC (TEA, 2018d).

According to national assessment data from the 2016-2017 TAPR, Hispanic students lagged behind their peers on the SAT:

- Compared to the state's 72% of the Class of 2016 participating in the SAT, only 39% of Hispanics in Alvin ISD tested. Of those tested, almost 13% of Hispanic students in Alvin ISD scored at or above the criterion when compared to the state's almost 23% (TEA, 2018d).
- The average SAT score of Hispanic students also trailed the state average, especially in English Language Arts and Writing. Hispanic students in Alvin ISD had an average score of 873 in this area compared to the state's average score of 903 (TEA, 2018d).

ELLs also trail their peer groups in taking and completing advanced coursework. Compared to the state's 39% of Grade 9 through Grade 12 students who completed dual credit college coursework, only 8.6% of ELLs in Grade 9 through Grade 12 completed dual credit coursework (TEA, 2018d). Likewise, compared to the state's 45% of students who completed advanced placement coursework, only 16% of ELLs completed advanced placement coursework (TEA, 2018d).

As a result of changing legislation, there currently exists added pressure for teachers to support students from culturally and linguistically diverse backgrounds (Brown, 2015). Across the state and locally in Brazoria County and in Alvin ISD, ELLs experience unique language acquisition challenges that educators must be prepared to support, as they work with students speaking over 75 different languages. Additionally, ELLs bring unique cultural perspectives that teachers must be willing to embrace. The lack of teacher preparation to address these challenges is contributing to achievement gaps for these students (Jiménez et al., 2015; Miller et al., 2017; Turgut et al., 2016). Rubinstein-Avila and Lee (2014) found secondary teachers felt "ill-

prepared to scaffold or differentiate instruction to meet these students' language and academic needs" (p. 187).

Demographic shifts in student populations have resulted in a significant concern for the impact of teaching and learning in suburban districts, because teachers who once taught monolingual students are now teaching more academically and linguistically diverse student populations. One of the most significant challenges facing administrators in Alvin ISD is how to prepare and support teachers for the diversity within the classroom. The achievement gap of ELLs in Alvin ISD is a significant problem, as evidenced by local, state, and national data when looking specifically at the Hispanic subpopulation. There are significant implications for the district to ensure inclusion and availability of appropriate resources and supports for ELLs. Improved teacher preparation with CRT methods is at the forefront of this study to assist teachers in Alvin ISD to support ELLs in the secondary classroom.

Major Findings

Increased enrollment of ELLs and the widening achievement gap demand further attention in Brazoria County, Texas. This research aimed to contribute to the goal of fully equipping teachers in Alvin ISD to respond to ELLs academically, culturally, and linguistically by investigating teacher attitude and perception to determine if there was a statistically significant difference according to pre- and post-survey data in order to evaluate the effectiveness of the CRT program intervention.

I hypothesized that educators who participated in the CRT in-service training would develop positive attitudes toward CRT and gain a greater multicultural awareness to change their perception of CRT and teaching ELLs, thus rejecting the null hypothesis. The findings supported this hypothesis. The findings provided strong evidence to infer that there was a

statistically significant increase in teachers' perception of CRT and attitude toward CRT after participation in a CRT training intervention. Also, there was a statistically significantly higher perception and attitude score toward CRT in the CRT intervention group compared with the no CRT intervention group. The increase in CRT perception and attitude scores at post-intervention was higher in the CRT intervention group compared with the no intervention group.

The two main variables were perception and attitude toward CRT. The results showed that the mean of perception of CRT at pre-intervention was lower than that at post-intervention (2.611 vs. 2.782, respectively). The standard deviation of perception of CRT was also lower at pre-intervention compared with post-intervention (0.789 and 0.899, respectively). The results showed that the range of perception of CRT at pre-intervention was narrower than that at post-intervention (1.13 to 4.62 and 1.13 to 5.00, respectively).

A similar pattern of results can be seen when comparing pre- and post-attitude scores toward CRT. The mean of attitude toward CRT at pre-intervention was also lower than that at post-intervention (2.834 vs. 2.980, respectively). The results showed that the range of attitude toward CRT at pre-intervention was narrower than that at post-intervention (1.75 to 4.50 vs. 1.75 to 5.00, respectively).

Limitations

Limitations of the study include the geographic parameters and a limited sample size. This study focused on one school district in Brazoria County, Texas. The participants were limited to three of the four high schools in Alvin ISD, so the number of participants may be below the preferred sample size for application of findings. Furthermore, teachers who were reluctant to learn more about CRT or to try something new may not have volunteered to participate in the study, which may have decreased the sample size. The small sample size might

also have increased sampling error. Additionally, participation in the sample was limited to high school teachers of ELLs who had previously trained in the district's sheltered instruction training. Because of these limitations, participation in the data collection was not entirely random, and this may have increased researcher bias and contaminated effect size. Overall, these limitations mean there is not a representative distribution of the population, so the results cannot necessarily be generalized or transferred.

There exists a potential lack of reliable data, given that the clustering of participants may have increased contamination between the experimental and the control groups. Members of the two groups could have shared experiences over the course of the 3-week intervention, which could have impacted the attitudes and perceptions of those who were not participating in the training. When evaluating, Rhoads (2011) asserted, this contamination may "make the treatment group and the control group look more similar, on average, than they are" (p. 78).

These findings may not be generalizable to any group of teachers other than those who have also been trained in the district's sheltered training program. Moreover, self-reported data are limited by the fact that teachers may not respond to the survey questions in an honest manner, which could skew the results. Participants might select responses that represent best practices instead of actual practices, something that would be difficult to prevent in a survey. Also, the research does not provide additional evidence, such as observations or interviews, to support the attitudes and perceptions of the teachers.

How Findings Relate to Similar Studies

The results of these findings are important because of their strong potential to beget significant change to many facets of classroom learning and, by extension, overall academic success and achievement for ELLs in suburban areas. According to a recent study, "Teacher

education programs, often structured to respond to state control on what to teach to pre-service teachers, frequently do not require pre-service teacher programs to prepare candidates for teaching ELLs” (Kim et al., 2014, p. 229). According to a survey conducted by Walker et al. (2004), “87% of mainstream K-12 classroom teachers did not receive any training in ELL education” (p. 154). This remains true in recent literature, as many pre-service teachers do not have the knowledge to understand that today’s students have different experiences than when they were students in school (Hancock, 2011). Khong and Saito (2014) reported that many educators of ELLs “have to depend mainly on their own, often insufficient, knowledge gained through daily work with students” (p. 214). While Alvin ISD provides an onboard training program for teachers of ELLs with sheltered instruction and on creating language-rich classrooms, there is no learning platform to ensure CRT approaches to planning, instruction, and assessment practices; yet, the findings of this study demonstrate how CRT training could better equip teachers and improve student performance.

Implementing CRT training specifically is imperative, and the results of this study indicate the potential for change it could bring about given the change in teacher perceptions. Walter (2018) advised, “Understanding students’ identities, achievements, and perspectives enables teachers to affirm diversity and strengthen the connections between school, home, and the community” (p. 25). According to Walter, students will have the opportunity to reach their maximum potential when they have teachers that know them “well enough to know what they need, what motivates them, and how and why they learn, engage, and collaborate” (p. 26). Wiens (2015) emphasized, culturally responsive teachers “understand that knowledge is constructed from the vast experiences of their students” (para. 6). Driver and Powell (2017)

agreed that “teachers should view diverse student experiences, perspectives, and languages as resources in their classroom” (p. 43).

Moreover, in a June 2015 correlational study of teacher efficacy and CRT techniques conducted in a Southeastern urban school district, Callaway (2017) found a positive and statistically significant relationship between personal teacher efficacy, general teacher efficacy, and CRT, findings which could be replicated in Alvin ISD, if changes are made. According to Callaway (2017), “Teachers with a strong sense of cultural teaching efficacy tend to make decisions that are in the best interest of their students” (p. 20). These teachers give students opportunities to engage in inquiry and explore topics that are meaningful to them, which, if implemented in suburban settings like Alvin ISD, can produce long-term, effective change academically.

Implementing the findings by way of integrating better training in CRT for teachers in the Alvin ISD will potentially improve ELL student success by providing teachers with better methods for engagement from all students. Teachers would have the tools to be cognizant of diverse learning styles and create more supportive student learning environments (Ramirez & Jiménez-Silva, 2015). This could include doing away with the reliance on volunteers for classroom participation, which Ramirez and Jiménez-Silva (2015) determined to be inefficient. The findings here could provide teachers with better strategies for integration such as those laid out by Walter (2018), including think-pair-share activities, turn and talk strategies, and exit tickets, which are more culturally responsive. Culturally responsive teachers aim to be collaborative and often create experiences where students can share with and learn from each other (Boyce & Chouinard, 2017; Driver & Powell, 2017; Khong & Saito, 2014; Pereira & de Oliveira, 2015). Additionally, culturally responsive teachers may organize students into small

groups and provide targeted instruction based on learning needs (Driver & Powell, 2017; Lopez & Iribarren, 2014). This is important because, according to Chen and Yang (2017), “Teacher instructions incorporating CRT strategies were more likely to increase students’ involvement in communication and enhance their communication skills” (p. 85).

This is particularly critical with regard to improving academic success for ELLs, as Wlodkowski and Ginsberg (1995) found, “Engagement is the visible outcome of motivation” (p. 17). Given that researchers have found that direct engagement was the most beneficial for diverse students, especially ELLs (Sharma et al., 2016), teachers who receive CRT training and implement the strategies in their classrooms would potentially be better able to motivate the ELLs to learn by providing better engagement opportunities. According to Morrison et al. (2008), teachers can support diverse learners through “intensive modeling, scaffolding, and clarification of challenging curriculum” (p. 435). Culturally relevant teachers also “use students’ strengths as instructional starting points” (Morrison et al., 2008, p. 436).

The findings suggest that by implementing CRT training for teachers in suburban schools, teachers will be better able to honor the home language in the classroom, an act that will affirm student identities (Aceves & Orosco, 2014). Teachers may also be able to better incorporate a variety of activities that help non-ELLs understand bicultural peers and accept them rather than bully or tease them, similar to the work completed by Song (2018). Therefore, making changes to add CRT teaching will potentially lead to similar outcomes for ELLs in Alvin ISD and other districts facing similar shifts in student demographics.

Using the findings from this study, Alvin ISD can potentially achieve similar improvements by providing teachers of ELLs in Alvin ISD with better self-reflection, which will beget more successful implementation of CRT within the classroom. Given the findings of this

study, Alvin ISD could benefit from an improvement in teacher conveyance of high expectations for every student, including ELLs, which has the potential to improve the feelings students have toward themselves and their abilities.

The findings of this study have the potential to improve critical thinking for teachers, which Aceves and Orosco (2014) asserted was one of the more important skills for teachers in such situations. Aceves and Orosco stated, “CRT methods provide teachers with the skills to teach students how to become critical thinkers by integrating their cultural and linguistic experiences with challenging learning experiences involving higher order thinking and critical inquiry” (p. 10). Furthermore, Wlodkowski and Ginsberg (1995) found that “collaborative learning, hypothesis testing, critical questioning, and predicting heighten the engagement, challenge, and complexity of this process for the students” (p. 19). Ramirez et al. (2016) reported that students develop critical thinking skills when CRT methods are employed, “The literacy work students were engaged in reinforced the value of student community activism and fostered their critical thinking skills as well as informed their agency” (pp. 26-27). As such, Alvin ISD stands to potentially benefit in similar ways by implementing the findings of this study and adding CRT training for teachers who work with ELLs. Aceves and Orosco (2014) claimed, “Students’ contributions drive the teaching and learning process in a culturally responsive classroom as teachers develop culturally responsive learning opportunities and outcomes” (p. 18).

By implementing CRT training for teachers in suburban areas like Alvin ISD, teachers could become culturally responsive and integrate a stronger social justice component in their instruction, which Aceves and Orosco (2014) found could help “students identify and confront sociopolitical inequities and issues of social power and class privilege” (p. 12). If teachers are

able to do this, it could promote social change within the school and community (Webb & Barrera, 2017). Encouraging relationships between school and communities sends the message to students “that where they come from is important” (Morrison et al., 2008, p. 440).

Additionally, problem solving becomes culturally responsive “when students address problems that touch upon cultural and linguistic issues to improve their daily lives” (Aceves & Orosco, 2014, p. 17).

By using critical literacy strategies to allow students to safely discuss controversial topics, engaging students in social justice work to serve their communities, and sharing authority in the classroom, teachers in suburban areas could potentially help their students develop better relationships with their school and with their community (Morrison et al., 2008). Tangentially, culturally responsive teachers create a safe space for students to discuss controversial topics, allow social issues to drive instruction, provide opportunities for community service, and model and promote attitudes of equity and compassion, an achievement that could be reached by implementing CRT training in suburban areas.

Future Research

To begin, future research should be conducted on a wider scale for suburban schools with similar and varying demographics shifts. Work could be done to examine the effectiveness of teacher perceptions on a larger scale, such as an entire district, varying state districts, or across different states. Additionally, the work conducted here could be expounded upon with additional evidence, such as observations or interviews, to support the attitudes and perceptions of the teachers. A bigger sample size could provide for a representative distribution of the population, such that the results could be generalized or transferred.

Future research needs to be conducted to examine the effectiveness of CRT training, if implemented, for suburban areas. While this study uncovered the changes in teacher perception after initial training, there exists a large demand for additional research to determine if the aforementioned potential improvements are achieved or not achieved. This would include future research focused on whether the implementation of CRT training in the Alvin ISD and similar suburban schools/districts noticed an improvement in ELLs' perception of their capabilities as a result of higher expectations conveyed by teachers.

Additional studies can review the effectiveness of CRT implementation as it relates to the incorporation of a variety of activities that help non-ELLs better understand bicultural peers and, as a result, the effectiveness of reducing bullying or teasing behavior among suburban and urban schools alike. Further research could also examine how effective CRT training and implementation was for teachers with regard to providing better methods for supportive student learning environments and more learning-diverse methods of classroom participation. Future research can also focus on teachers and whether providing teachers of ELLs in Alvin ISD and similar suburban school districts with better self-reflection does actually beget more successful implementation of CRT within the classroom.

Summary

There exists a significant gap between achievement of English-speaking students and ELLs. A great deal of research has been done to support the implementation of CRT training for teachers and the results such training can achieve for students and academic success. However, the current literature focuses almost exclusively on these effects within urban schools, with no work detailing suburban schools.

Overall, this study aimed to support teachers in understanding and empathizing with ELLs in Alvin ISD by determining whether there was a statistically significant difference between secondary teachers' perceptions of CRT before and after participation in a CRT training intervention. The results determined that there was a statistically significant difference in teacher perception of CRT before and after participation in a CRT training intervention. The study also sought to determine if there was a statistically significant difference between secondary teachers' attitudes toward CRT before and after participation in a CRT training intervention. Again, the results indicated a statistically significant difference in teacher attitude toward CRT before and after participation in a CRT training intervention. The results indicated that educators who participated in the CRT in-service training developed positive attitudes toward CRT and gained a greater multicultural awareness to change their perception of CRT and teaching ELLs, thus rejecting the null hypothesis. The results of this research are significant with regard to the implications they could have on teacher training and ELL performance in suburban schools. In the future, it is recommended that additional research expound upon the sample size of this research, while simultaneously following up with the changes wrought by implementing CRT training for suburban teachers.

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Appendix A: Abilene Christian University IRB

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September 18, 2018

Tina McCorkle

Department of Educational Leadership

Dear Tina,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Culturally Responsive Training for Secondary English Language Teachers",

(IRB# 18-067) is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

Additional Approvals/Instructions:

The following are all responsibilities of the Primary Investigator (PI). Violation of these responsibilities may result in suspension or termination of research by the Institutional Review Board. If the Primary Investigator is a student and fails to fulfil any of these responsibilities, the Faculty Advisor then becomes responsible for completing or upholding any and all of the following:

- If there are any changes in the research (including but not limited to change in location, members of the research team, research procedures, number of participants, target population of participants, compensation, or risk), these changes **must be approved by the IRB prior to implementation**.
- Report any protocol deviations or unanticipated problems to the IRB promptly according to IRB policy.
- Should the research continue past the expiration date, submit a Continuing Review Form, along with a copy of the current consent form and a *new* Signature Assurance Form approximately 30 days before the expiration date.
- When the research is completed, inform the Office of Research and Sponsored Programs. If your study is Expedited or Full Board, submit an Inactivation Request Form and a *new* Signature Assurance Form. If your study is Exempt, Non-Research, or Non-Human Research, email orsp@acu.edu to indicate that the research has finished.
- According to ACU policy, research data must be stored on ACU campus (or electronically) for 3 years from inactivation of the study, in a manner that is secure but accessible should the IRB request access.
- It is the Investigator's responsibility to maintain a general environment of safety for all research participants and all members of the research team. All risks to physical, mental, and emotional well-being as well as any risks to confidentiality should be minimized.

For additional information on the policies and procedures above, please visit the IRB website <http://www.acu.edu/community/offices/academic/orsp/human-research/overview.html>

Appendix B: Permission to Use Survey Instrument

Use of CRTS

(a) Tina Grohman <txg11a@acu.edu>

May
3

to rhodesc14

Hello Dr. Rhodes!

I have learned a great deal from your research of culturally responsive teaching. I am pursuing my Ed.D. and am studying secondary teacher perceptions of teaching ELLs in a suburban school district outside of Houston, Texas. I am planning to conduct a quantitative study that focuses on high school teachers' perceptions of CRT practices and how these may change over time as a result of in-service professional development. Specifically, my study examines teachers' views and experiences with CRT and how teachers relate to and understand ELLs to effectively engage them to increase academic achievement.

Is your survey instrument open use for the purposes of my study? I want to ensure I am respecting the great work you have done and am seeking your permission to use (and slightly modify) the instrument for my study?

Will you please let me know what I need to do to obtain permission to use your instrument for my study?

Thanks so much,

Tina McCorkle
281-889-7656

(b) Rhodes, Christy

May
7

to me

Hi Tina

Your dissertation sounds phenomenal! If there's any way I can help, in addition to giving you permission to use and adapt it, please let me know. I received so much support from colleagues during my dissertation, so I'd love to pay it forward.

All the best and I look forward to hearing from you and seeing your findings.

Christy M. Rhodes, Ph.D.
Assistant Professor
Interdisciplinary Professions
East Carolina University

AAACE 2018 Conference Co-Chair

Appendix C: Original CRTS Instrument

A. Survey of Culturally Responsive Teaching Practices

Item #	Item Prompt
1	I include lessons about the acculturation process.
2	Examine class materials for culturally appropriate images and themes.
3	I ask students to compare their culture with American culture.
4	I make an effort to get to know my students' families and backgrounds.
5	I learn words in my students' native languages.
6	I use mixed-language and mixed-cultural pairings in group work.
7	I use peer tutors or student-led discussions.
8	I use surveys to find out about my students' classroom preferences.
9	I elicit students' experiences in pre-reading and pre-listening activities.
10	I encourage students to speak their native languages with their children.
11	I have students work independently, selecting their own learning activities.
12	I spend time outside of class learning about the cultures and languages of my students.
13	I include lessons about anti-immigrant discrimination or bias.
14	I supplement the curriculum with lessons about international events.
15	I ask for student input when planning lessons and activities.
16	I encourage students to use cross-cultural comparisons when analyzing material.
17	I provide rubrics and progress reports to students.

Appendix D: Survey of Culturally Responsive Teaching Practices (Pre-Training Intervention)

██████████

██

Title of Study: Culturally Responsive Training for Secondary English Language Teachers Used with permission from Dr. Rhodes of East Carolina University

** Required*

Please enter a unique four digit ID that will be used to match your pre- and post- survey results. *

Your answer: _____

I include lessons about the acculturation process. *

1 2 3 4 5
 Never Always

I examine class materials for culturally appropriate images and themes *

1 2 3 4 5
 Never Always

I ask students to compare their culture with American culture. *

1 2 3 4 5
 Never Always

I make an effort to get to know my students' families and backgrounds. *

1 2 3 4 5
 Never Always

I learn words in my students' native languages. *

1 2 3 4 5
 Never Always

I use mixed-language and mixed-cultural pairings in group work. *

1 2 3 4 5
 Never Always

I use peer tutors or student-led discussions. *

1 2 3 4 5
 Never Always

I use surveys to find out about my students' classroom preferences. *

1 2 3 4 5
 Never Always

I elicit students' experiences in pre-reading and pre-listening activities. *

1 2 3 4 5
 Never Always

I have students work independently, selecting their own learning activities. *

1 2 3 4 5
 Never Always

I spend time outside of class learning about the cultures and languages of my students. *

1 2 3 4 5

Never Always

I include lessons about anti-immigrant discrimination or bias. *

1 2 3 4 5
Never Always

I supplement the curriculum with lessons about international events. *

1 2 3 4 5
Never Always

I ask for student input when planning lessons and activities. *

1 2 3 4 5
Never Always

I encourage students to use cross-cultural comparisons when analyzing material. *

1 2 3 4 5
Never Always

I provide rubrics and progress reports to students. *

1 2 3 4 5
Never Always

Appendix E: Availability for Culturally Responsive Teaching (CRT) Training Intervention

Please complete this form to let the researcher know if you are available to attend all three training sessions. If you are available, please understand you must be randomly selected for participation in the training. If you are not selected for the training, you can still take part in the study by completing the pre- and the post-survey for comparison data.

You are only compensated with the stipend from the district if you are chosen for the training and attend all three training sessions.

Monday, October 22 at MHS (3:30 - 4:15)

Monday, October 29 at MHS (3:30 - 5:30)

Monday, November 5 at MHS (3:30 - 4:15)

Name: _____

I am available to participate in all three training sessions:

_____ Yes

_____ No

I understand I only receive the stipend if I am randomly selected to participate and attend all three sessions.

_____ Yes

_____ No

Appendix F: Survey of Culturally Responsive Teaching Practices (Post-Training Intervention)

[REDACTED]

[REDACTED]

Title of Study: Culturally Responsive Training for Secondary English Language Teachers Used with permission from Dr. Rhodes of East Carolina University

** Required*

Please enter the same unique four digit ID that you used on the first survey. It will be used to match your responses for comparison so the researcher can keep your name anonymous.

Your answer: _____

I include lessons about the acculturation process. *

1 2 3 4 5
 Never Always

I examine class materials for culturally appropriate images and themes *

1 2 3 4 5
 Never Always

I ask students to compare their culture with American culture. *

1 2 3 4 5
 Never Always

I make an effort to get to know my students' families and backgrounds. *

1 2 3 4 5
 Never Always

I learn words in my students' native languages. *

1 2 3 4 5
 Never Always

I use mixed-language and mixed-cultural pairings in group work. *

1 2 3 4 5
 Never Always

I use peer tutors or student-led discussions. *

1 2 3 4 5
 Never Always

I use surveys to find out about my students' classroom preferences. *

1 2 3 4 5
 Never Always

I elicit students' experiences in pre-reading and pre-listening activities. *

1 2 3 4 5
 Never Always

I have students work independently, selecting their own learning activities. *

1 2 3 4 5
 Never Always

I spend time outside of class learning about the cultures and languages of my students. *

1 2 3 4 5

Never Always

I include lessons about anti-immigrant discrimination or bias. *

1 2 3 4 5
Never Always

I supplement the curriculum with lessons about international events. *

1 2 3 4 5
Never Always

I ask for student input when planning lessons and activities. *

1 2 3 4 5
Never Always

I encourage students to use cross-cultural comparisons when analyzing material. *

1 2 3 4 5
Never Always

I provide rubrics and progress reports to students. *

1 2 3 4 5
Never Always

Submit