THE SELF-EFFICACY OF CULTURALLY RESPONSIVE TEACHING AMONG SECONDARY TEACHERS DURING EMERGENCY ONLINE LEARNING

Jo R. Hawke

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THE SELF-EFFICACY OF CULTURALLY RESPONSIVE TEACHING AMONG SECONDARY TEACHERS DURING EMERGENCY ONLINE LEARNING

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ABSTRACT

THE SELF-EFFICACY OF CULTURALLY RESPONSIVE TEACHING AMONG SECONDARY TEACHERS DURING EMERGENCY ONLINE LEARNING

Jo R. Hawke

The present study used an explanatory-sequential mixed-methods research design to investigate the culturally responsive teaching self-efficacy of secondary teachers during the emergency online learning of 2020. Participants were all teachers in a small urban mid-Atlantic school district.

Phase 1 involved the collection of primarily quantitative data, including a measure adapted from Siwatu’s (2007) Culturally Responsive Teaching Self-Efficacy (CRTSE) scale. Quantitative findings informed the selection of six teachers to participate in interviews during the qualitative Phase 2. Interview questions further probed participants’ culturally responsive teaching self-efficacy and how the teachers demonstrated these beliefs in general and specifically during the emergency online learning of 2020. Qualitative data was analyzed using a two-cycle coding process, primarily focused on four elements of culturally responsive teaching: funds of knowledge, cultural tools, broadened learning context, and social justice.

Cruz et al. (2019) found that “little research has examined the extent to which teachers feel competent specifically in their ability to implement CRT practices” (p. 3). The present study aimed to address this gap by investigating the CRTSE in diverse secondary settings using a mixed-methods design. Evidence in many fields of research indicates that studying extreme situations can provide valuable insight that can be
applicable in other less extreme contexts (Chen, 2016; Kreiner et al., 2009; Murtazashvili, 2019). The emergency remote teaching of 2020 constituted such an extreme situation, which the present study explored in an attempt to discover insight that would be applicable to post-COVID education. Studying the perceptions and practices of secondary teachers during this time period in terms of cultural responsiveness illuminated new perspectives on effectively reaching and teaching diverse groups of students.

Although previous studies have investigated CRTSE within many contexts, none have done so within the context of emergency online learning during a global pandemic. The present study has strong implications for understanding and building CRTSE among secondary teachers, which in turn has strong implications for improving academic success for their students. The study provides insight into teaching practices that demonstrate a need for building CRTSE among secondary teachers and should inform future professional development and district policy to this end.

*Keywords*: culturally responsive teaching, CRT, self-efficacy, emergency online learning, COVID, secondary teachers
DEDICATION

"Tener coraje para lo que venga en la vida—todo está en ese." –St. Teresa of Avila

“Be not afraid.” –Pope St. John Paul II

This dissertation is dedicated to all of the people who have encouraged, inspired, and supported me throughout my life: my family, friends, teachers, colleagues, and students. . . far too long a list to detail here. Every person, every place, every experience has contributed to my development as a writer, researcher, educator, and person. For every memory and every connection, I am humbly grateful.

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CHAPTER 1
INTRODUCTION

Teaching is an ever-changing practice with new students, policies, laws, and research necessitating often radical new approaches and expectations on a regular basis. This constant of change, for example, has been strikingly evident in the field of literacy education in which changes resulting in such areas of research as new literacies, digital literacies, and multiliteracies have monumentally expanded the definition of literacy itself. No longer denoting mere reading and writing, literacy has come to encompass a wide array of practices and events—physical, virtual, and a multitude of hybrid between (Freebody & Freiberg, 2011; Greenhow, 2011; Ortlieb et al., 2014; Reutzel & Mohr, 2014; Roberts & Billings, 2008; Verhoeven, 2011). These new perspectives on what constitutes literacy have pushed educators to investigate, incorporate, and even mandate novel instructional practices, many of which have yet to undergo careful research-based scrutiny (Sparks, 2020).

It could be argued that the COVID-19 pandemic caused more extreme, rapid, and widespread changes to teaching than any previous agent of change (Berry & Kitchen, 2020; Fabionar, 2020; Marquez Aponte, 2020; Schultz & DeMers, 2020; Sparks, 2020). The worldwide spread of COVID-19 left stay-at-home orders and social distancing laws in its wake. School closures in the spring of 2020 drastically changed the face of teaching and learning for more than 55.1 million students in 124,000 schools in the U.S. alone (Map: Coronavirus and School Closures, 2020). Worldwide, the number of learners affected was estimated at 1.5 billion, or 90% of enrolled school and university students (Bozkurt & Sharma, 2020; UNESCO, 2020). Teachers—many with no or little
experience teaching in non-physical spaces—were suddenly forced to use new tools, new methods, new practices with little or no training (Schultz & DeMers, 2020). Of the 100 largest U.S. school districts, 74 opted for a distance-learning model as the 2020–2021 school year began (United States Government Accountability Office, 2020).

**Statement of the Problem**

As growing numbers of researchers have noted (Fabionar, 2020; Johnson et al., 2020; Kaschub, 2020; Marquez Aponte, 2020; Trust & Whalen, 2020), the results of the “emergency online learning” (EOL)—also known as “emergency remote teaching,” “emergency virtual learning,” or other similar terms—that most school districts opted for during that time were “predominantly unsatisfactory for both learner and educator” (Schultz & DeMers, 2020, p. 142) with yet unknown potential consequences on children’s mental, emotional, and social growth (Fantini et al., 2020). Although what has been dubbed “distance learning,” “online learning,” “virtual learning,” or other similar titles is not a new phenomenon, it was by no means the normal mode of instruction for a large percentage of teachers and students before the forced closure of schools necessitated by COVID-19 (Bozkurt & Sharma, 2020; Fabionar, 2020). Furthermore, the EOL in many U.S. school systems in March 2020 and continuing with the reopening of the 2020–2021 school year in many of those school systems was drastically distinguishable from what could be considered traditional distance learning by its very emergency nature.

Emergency online learning (EOL) has come to signify educational practices utilizing available resources during a period of crisis during which schools are closed, forcing teachers and students to engage in the teaching-learning process from home, both
online and offline (Cahapay, 2020). EOL is generally considered a “temporary solution” (Bozkurt & Sharma, 2020, p. ii) during which learning spaces are transformed. Trust and Whalen’s (2020) survey study of 325 teachers’ experiences teaching during the initial school building shutdown—while EOL continued—revealed that teachers did not feel sufficiently prepared for EOL. As educators attempted to use web-based tools and quickly produced learning packets mailed home to participate in the EOL process, students who were already marginalized seemed to fare even worse at a distance (Kaden, 2020). Rather than deteriorating what was working well, COVID-19 seems to have further exacerbated an existing systemic problem of inequity (Dooley et al., 2020; Fabionar, 2020; Kaschub, 2020; Kaden, 2020).

**English Learners**

English learners (ELs), students whose home language is a language other than English, is a subset of students who have been continually at risk academically. As of 2016, nonnative English speakers represented the population of students growing most rapidly (Cole et al., 2016). In 2017, about 1 in every 10 students was learning English as a new language (Sanchez, 2017). The number of ELs in U.S. public school classrooms increased 150% between 1996 and 2011 (Goldenberg, 2011) and continued to increase from 4.5 million or 9.2% of total enrolled students enrolled in 2010 to 5.0 million or 10.2% of total enrolled students in 2018 (National Center for Education Statistics, 2021b). While U.S. students on the whole repeatedly score poorly in reading proficiency as compared to students worldwide (Organisation for Economic Co-operation and Development, 2015), ELs have continued to fall even further below other students academically on average (Sanchez, 2017). Despite their efforts, educators and policy-
makers have made little progress in implementing effective means of closing this achievement gap (Gay, 2018; Hammond, 2015; Siwatu et al., 2017; Toppel, 2016; Zhao, 2016)—long before schools were shut down in the wake of COVID-19, when students were forced to learn what they could from home.

Gay (2002), an early proponent of what she referred to as culturally responsive teaching (CRT), investigated how schools can better educate “students who are not part of the U.S. ethnic, racial, and cultural mainstream” (p. 114) in large part through improved teacher training. Her work has illuminated the strong influence that culture has on “the attitudes, values, and behaviors that students and teachers bring to the instructional process” (p. 114). The underlying reason for these students’ lack of success, she determined, was that the culture of the school contrasted so much with their native culture that it proved too much of a barrier for them to learn effectively:

These [ethnically diverse] students have been expected to divorce themselves from their cultures and learn according to European American cultural norms. This places them in double jeopardy—having to master the academic tasks while functioning under cultural conditions unnatural (and often unfamiliar) to them. Removing this second burden is a significant contribution to improving their academic achievement. (p. 114)

In other words, all students by nature of the learning process have one burden: learning itself. Students from a culture other than the mainstream culture have an additional burden as they navigate new cultural contexts.

In the emergency remote teaching of 2020, a new burden of learning from home was forced on all students. When schools were shut down in the spring of 2020, “it was
important to place issues of equity at the center of remote learning plans, with increased
guidance for special populations,” including English learners and students with
disabilities (Kaden, 2020, p.175). Although this was likely a consideration in every
school system, the online learning context in which many teachers and students found
themselves was a new learning space that required reconceptualization of traditional
understanding to be utilized effectively (Cahapay, 2020). In the midst of a global
pandemic and “widespread civil unrest in response to systemic and violent racism”
(Fabionar, 2020), many already vulnerable students may have fared even worse than
usual (Fabionar, 2020; Kaschub, 2020; Kaden, 2020).

Students with Disabilities

Another subset of students who “faced persistent achievement gaps” even prior to
COVID-19 is students with disabilities (United States Government Accountability Office,
2020). In the 2019–2020 school year, 7.3 million students received special education
services under the Individuals with Disabilities Education Act (IDEA). These students
represented 14% of all enrolled students in public schools that year, an increase of 1.2
million total students since the 2009–2010 school year; a consistent achievement gap has
existed between students with and without disabilities throughout these years (National
Center for Education Statistics, 2021c).

Purpose of the Study

The purpose of the present study was to explore the self-efficacy of culturally
responsive teaching among secondary teachers in a small urban mid-Atlantic school
district during the emergency online learning necessitated by the COVID-19 pandemic of
2020. Using an explanatory-sequential mixed-methods design, a quantitative survey was
administered to teachers in Phase 1 to measure their self-efficacy of culturally responsive teaching during emergency online learning. In Phase 2, purposively selected teachers participated in a qualitative interview to investigate their culturally responsive teaching practices during emergency online learning.

**Theoretical Framework**

Two theoretical perspectives guided the present study: sociocultural theory and self-efficacy theory. In the following sections, both theories and their relation to the present study will be discussed.

**Sociocultural Theory**

The concepts underlying culturally responsive teaching (CRT) stem from Vygotsky’s (1978) sociocultural learning research in the early 20th century. Through Vygotsky’s work, learning came to be seen as primarily a social practice that is afterward internalized (Heineke et al., 2015; Nieto, 2010; Wearmouth, 2017). From this perspective, as children grow and learn, they undergo internalization processes in phases of specific events, each transforming external activity to internal activity (Vygotsky, 1978). In other words, according to Vygotsky, every developmental process that children experience happens twice: first socially with others, and then individually within the child. Based on this process, the social learning context is crucial to individual learning.

Vygotsky’s (1978) sociocultural learning theory included the necessity of assessing students’ skills as a precursor to instruction, so that assessment can inform instruction. In the preassessment, which can take many forms, teachers aim to find what Vygotsky called the “zone of proximal development” (ZPD), the sweet spot between what students can already do without help and what they simply cannot do even with
help. The ZPD is where teachers can assist students with scaffolding that helps bridge that gap and maximize learning. As students grow more proficient—i.e. as the ZPD shifts—that scaffolding can be removed piece by piece to ensure that instruction is always challenging but never too much so. In this way, all students can feel successful and enjoy learning without experiencing so much stress that frustration ensues. This is the essence of differentiated instruction.

As an instructional design, the sociocultural approach to teaching known as culturally responsive teaching has shown promise in maximizing learning among diverse students (Abdulrahim & Orosco, 2019; Aronson & Laughter, 2016; Wearmouth, 2017). Some researchers have criticized certain aspects of the sociocultural approach, e.g., the inability the ZPD to explain a child’s specific development process (Chaiklin, 2003); the way Vygotsky’s theory “ignores the role of the individual” in favor of the collective and does not recognize that some individuals may not derive the same meanings from interactions with the group (Liu & Matthews, 2005). However, most researchers agree with Nieto (2010) argued that Vygotsky’s then-radical ideas about the effects of society and culture on learning can provide a structure for considering the powerful effect schools can have on the learning communities that develop within them. The disconnect between the external experience of instruction and the internal learning triggered in students whose home culture more closely matches that of the school results in the discomfort and subsequent disengagement of non-mainstream students (Au & Jordan, 1981; Cazden & Leggett, 1981; Erickson & Mohatt, 1982; Gay, 2018; Irvine, 1990; Jordan, 1985; King, 1991; Labov, 1969; Ladson-Billings, 1995; Mohatt & Erickson, 1981; Moll et al., 1992; Nieto, 2010; Piestrup, 1973; Vogt et al., 1987).
The present study investigated the culturally responsive teaching practices of secondary teachers during a bound time period: the emergency online learning of the Fall 2020 semester. With sociocultural theory in mind, the present study viewed student differences as assets (Maitra, 2017; Wearmouth, 2017), embracing a funds of knowledge (Moll et al., 1992) perspective and rejecting a deficit view. Also, culture was understood as a context in which learning takes place, a broadened perspective in light of the home cultures that diverse students bring with them to the classroom (Chenowith, 2014; McIntyre, 2011; Nieto, 2010; Wearmouth, 2017). This broadened learning context also addressed the learning that took place at home during the emergency online learning of Fall 2020. Finally, from a sociocultural perspective, teachers are viewed as “prime mediators” (Wearmouth, 2017, p. 2) of their students’ learning experiences, usually harnessing additional mediators or “cultural tools” (McIntyre, 2011, p. 46) as they design and implement instruction.

**Self-Efficacy Theory**

Because the present study investigated these teachers’ beliefs related to their ability to implement culturally responsive teaching (and not their actual implementation of CRT), a secondary theoretical framework was also utilized: self-efficacy theory. Developed by the psychologist Bandura (1977) in relation to behavioral change, self-efficacy is “the conviction that one can successfully execute the behavior required to produce the outcomes” (p. 193). Bandura distinguished between self-efficacy, or “efficacy expectancy,” and what he called “outcome expectation,” or the anticipated results from participation in a specific behavior. He posited that all “human behavior is influenced by the individual’s beliefs regarding [these] two classes of expectations”
Self-efficacy is context-bound, specific to an individual’s belief in their own potential to complete a task. In other words, self-efficacy does not relate to a belief that a certain task can be completed by someone given the right set of circumstances, but rather a belief that they themselves can accomplish the specific task within a specific context. Dellinger et al. (2008) defined self-efficacy within an educational context as “teacher’s individual beliefs in their capabilities to perform specific teaching tasks at a specified level of quality in a specified situation” (p. 752).

Bandura (1997) postulated that self-efficacy beliefs are a necessary component of one’s basic ability to act, what he referred to as “human agency.” Although skill is an integral factor in personal accomplishments, Bandura found that “self-beliefs of efficacy” are also necessary, so that the performance of people with equal knowledge and skills might fluctuate depending on changes in their “self-efficacy thinking” (1993). He found that people with stronger levels of perceived self-efficacy set higher goals to which they were more firmly committed. Likewise, other researchers who have studied self-efficacy specifically with teachers found that teachers with a strong sense of self-efficacy display behaviors that signify stronger teaching skills (Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk Hoy, 2001). Teachers’ attitudes regarding race and their perceived ability to work with diverse students has also been correlated with their self-efficacy in these areas (American Psychological Association, 2012; Siwatu, 2011; Siwatu et al., 2017; Tucker et al., 2005).

The present study used a quantitative survey developed by Siwatu (2007), the Culturally Responsive Teaching Self-Efficacy (CRTSE) scale, and follow-up qualitative interviews with teachers who have low, moderate, and high CRTSE.
Significance of the Study

The present study has strong implications for understanding and building teacher self-efficacy of culturally responsive teaching, which in turn has strong implications for improving academic success for students. During the present study’s bound time period, the fall semester of the 2020–2021 school year, schools were still reeling from the COVID-19 pandemic’s forced closures, and the most vulnerable students seem to have taken the hardest hit from the emergency online learning that resulted (Kaden, 2020).

Although many studies have investigated culturally responsive teaching self-efficacy in many contexts, none have done so within the context of emergency online learning during a global pandemic. Evidence in many fields of research—business, health, economics, government, religion, etc.—indicates that studying extreme situations can provide valuable insight that can be applicable in other less extreme contexts (Chen, 2016; Kreiner et al., 2009; Murtazashvili, 2019). The emergency remote teaching of 2020 constituted such an extreme situation, which the present study explored in an attempt to discover valuable insight that would be applicable to post-COVID education. Studying the perceptions and practices of secondary teachers during this time period in terms of cultural responsiveness illuminated new perspectives on effectively reaching and teaching diverse groups of students in general.

In a purely quantitative analysis of the culturally responsive teaching self-efficacy of more than 200 anonymous teachers, Cruz et al. (2019) found that “little research has examined the extent to which teachers feel competent specifically in their ability to implement CRT practices” (p. 3). The present study aimed to address this gap by
investigating the self-efficacy of culturally responsive teaching in diverse secondary settings using a mixed-methods design.

The literature suggests a correlation between teacher use of culturally responsive teaching (CRT) and student achievement (Abdulrahim & Orosco, 2019; Aronson & Laughter, 2016; Cole et al., 2016; Gay, 2002, 2018; Nieto, 2010; Irvine, 1990; Jordan, 1985; King, 1991; Labov, 1969; Ladson-Billings, 1995; Wearmouth, 2017). In her book, *Culturally Responsive Teaching and the Brain*, Hammond (2015) proposed that CRT “has the power to close achievement gaps” (p. 3) between mainstream and non-mainstream students. She argued that many students struggle academically because they have not been given the opportunities to develop their cognitive abilities and that CRT implemented systematically can “stimulate the brain’s neuroplasticity so that it grows new brain cells that help students think in more sophisticated ways” (p. 15).

The results of the present study provide insight into effective teaching practices that illustrates a need for building self-efficacy for culturally responsive teaching among secondary teachers and also should inform future professional development and district policy to this end. Building teacher efficacy of CRT could be pivotal for the small urban mid-Atlantic school district that served as the study context, a district situated at or near the bottom of the state’s list of more than 130 school districts in terms of state standardized test scores for many years (Comprehensive Plan, 2015). It could also assist other school districts in analyzing issues involving teacher efficacy and student achievement, possibly by building more effective professional development programs.

**Research Questions**

The following research questions guided the present study:
1. What are secondary teachers’ perceptions of their ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester?

2. How did secondary teachers demonstrate their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester?

**Definition of Terms**

**Culturally responsive teaching (CRT).** According to Gay (2002), culturally responsive teaching is defined as the use of “cultural knowledge, prior experience, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them” (p. 31).

**Emergency online learning (EOL).** Emergency online learning (EOL) refers to the educational practices schools utilized due to the COVID-19 pandemic of 2020 (Bozkurt & Sharma, 2020; Cahapay, 2020; Fabionar, 2020; Fantini et al., 2020; Johnson et al., 2020; Kaschub, 2020; Marquez Aponte, 2020; Schultz & DeMers, 2020; Trust & Whalen, 2020). EOL is considered a “temporary solution” (Bozkurt & Sharma, 2020, p. ii) during which teachers and students participate in the learning process solely from home.

**Secondary education.** The International Standard Classification of Education (ISCED) ranks secondary education as Level 2 (lower secondary), which usually has a curriculum that is subject-based, and Level 3 (upper secondary), which is focused on preparation for the next phase of education (i.e., college) or employment (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2020). It is generally
accepted that the years of schooling between elementary school and graduation from high school are secondary education (Rand, 2020).

**Self-efficacy.** Self-efficacy is a sense of competence in one’s own abilities to perform certain actions (Siwatu, 2007). Bandura, who first proposed the construct in 1977, defined self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3).
CHAPTER 2

RELATED RESEARCH

The purpose of this literature review is to provide an understanding of the research related to self-efficacy of culturally responsive teaching. Thus, this literature review will explore culturally responsive teaching terminology; culturally responsive teaching, primarily in the areas of funds of knowledge, broadened learning context, cultural tools, and social justice; and self-efficacy, especially in relation to teacher self-efficacy of culturally responsive teaching.

Culturally Responsive Teaching Terminology

The sociocultural approach to teaching—also referenced as “instruction” or “pedagogy” when connected to the following—is expressed in many ways, including:

- Culturally responsive (Cruz et al., 2019; Dickson et al., 2016; Garcia & Chun, 2016; Gay, 2002; Ladson-Billings, 1994, 1995; Ortlieb et al., 2018; Siwatu, 2007, 2011; Siwatu et al., 2017; Toppel, 2015; Whitaker & Valtierra, 2018)


- Culturally congruent (Garcia & Chun, 2016; Ladson-Billings, 1994; Siwatu, 2007)

- Culturally appropriate (Ladson-Billings, 1994; Siwatu, 2007; Siwatu et al., 2017; Toppel, 2015; Unrau & Alvermann, 2013)
• Culturally compatible (Dickson et al., 2016; Ladson-Billings, 1994; Siwatu, 2007; Siwatu et al., 2017)

A study of four databases illustrated the varied usage of these terms in the literature (see Appendix A). “Culturally appropriate teaching” was the most widely used, based on searches for exact phrases of all peer-reviewed sources at ProQuest Direct (n=53,428) and searches for exact phrases limited to 174 education journals at JSTOR (n=22,152). “Culturally responsive teaching” was the most widely used based on searches for exact phrases, excluding patents and citations, at Google Scholar (n=21,600) and searches for exact phrases of all fields, limited to peer-reviewed articles in education databases at EBSCO (n=5,901). The present study referred to the set of practices referenced by these many names as “culturally responsive teaching” (CRT) for two main reasons: (1) Gay (2002, 2018) and other prominent researchers in the field have continued to use this terminology primarily and (2) this terminology forms the title of the quantitative survey administered in Phase 1 of the study, Siwatu’s (2007) Culturally Responsive Teaching Self-Efficacy Scale.

**Culturally Responsive Teaching**

Psychologist Vygotsky’s (1978) sociocultural research in the early 20th century provided a foundation for the concept of culturally responsive teaching (Heineke et al., 2015; Nieto, 2010; Wearmouth, 2017). However, it was not until much later that Vygotsky’s theories began to take root in U.S. educational research. The court-ordered desegregation of U.S. schools in the 1960s and 1970s led to the diversification of classrooms and the need for educational practices that support teachers in their efforts to teach students (Aronson & Laughter, 2016). Since then, research on cultural practices in

According to Gay (2018), culturally responsive teaching is about leveraging 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). Gay cited Au, Ladson-Billings, Delpit, Jordan, Irvine, Moll, and Nieto as having framed the theory of culturally responsive teaching. According to Gay (2018), culturally responsive teaching has eight characteristics. It is validating and affirming; comprehensive and inclusive; multidimensional; empowering; transformative; emancipatory; humanistic; and normative and ethical.

The present study focused on four elements of culturally responsive teaching: funds of knowledge, cultural tools, broadened learning context, and social justice. The following sections explore the literature in each of these areas.

**Funds of Knowledge**

Ladson-Billings (1995) based her conceptual framework aimed at meeting the educational needs of African-American students on the work of researchers from previous decades. Many of these researchers investigated the effectiveness of various instructional strategies that “match” (Gay, 2018; Ladson-Billings, 1995, p. 466) classroom culture with home culture in teaching minority students who had not formerly been academically successful, some in large urban settings (Irvine, 1990; King, 1991; Labov, 1969; Piestrup, 1973) and others in smaller settings (Au & Jordan, 1981; Cazden & Leggett, 1981; Erickson & Mohatt, 1982; Jordan, 1985; Mohatt & Erickson, 1981;
Vogt et al., 1987). Most of these latter studies especially explored using the conversational styles or patterns of students’ home language (L1) in developing strategies to help them learn how to adjust to the language of school.

Ladson-Billings (1995) noted that this kind of adjustment practice assumes failure on the part of the student to fit into the culture of the school and then finds ways to help the student change in order to fit in. Thus, they represent a deficit mentality by focusing on what is lacking rather than what is present. Teachers with a deficit perspective focus on the knowledge, experience, and skills their students lack and label students by their needs, or deficits (Llopart & Esteban-Guitart, 2017). According to Tanner (2011), teachers who hold a deficit model assume that some students are inferior to others due to heredity, culture, or experience. Many American teachers have internalized the “cultural deficit paradigm [that] still casts a long shadow on the American cultural landscape . . . [resulting in] low teacher expectations and uninspiring teaching” (Gay, 2018, p. xii).

For this and other reasons, Ladson-Billings (1995) rejected other terms (e.g., culturally appropriate, culturally congruent, culturally compatible) and—though citing “culturally responsive” as a term that refers to “a more dynamic or synergistic relationship” between home and school (p. 467)—dubbed her theoretical model “culturally relevant pedagogy.” Rejecting a deficit mindset requires that educators and researchers challenge the terminology they use, as well as their practices. Instead of labeling students by their deficits, an asset-based perspective helps educators identify what students bring to the proverbial table: how their previous experiences and prior knowledge can enable them to better contribute to the culture of the classroom and learn new information and skills (Llopart & Esteban-Guitart, 2017).
This rejection of deficit views of students mirrors the work of Moll and his colleagues (1992) on a concept they called “funds of knowledge” (McIntyre, 2011). Investigating the connection between home and school cultures, they advocated leveraging the “historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being” (Moll et al., 1992, p. 133) in the classroom. Culturally responsive teaching views student differences as “assets” (Maitra, 2017; Wearmouth, 2017)—not problems to be solved—in the process of building learning communities that value diverse cultures and heritages. The process of discovering and leveraging students’ funds of knowledge may require teachers to broaden their definitions of the type of knowledge considered acceptable and useful. In this view, all students bring to school with them rich literacy, social, and cultural experiences that can be leveraged in their learning (Aronson & Laughter, 2016; Ladson-Billings, 1995; Maitra, 2017; McIntyre, 2011; Moll et al., 1992; Wearmouth, 2017). Thus, students’ differences are valued, embraced, and used to facilitate learning within the cultural context of the classroom. Chenowith (2014) explained that “every student’s perspective is valuable regardless of race, creed, or cultural background. All viewpoints are essential to creating democracy” (p. 37).

In their mixed-methods study on emergent biliteracy in young Mexican immigrants, Reyes and Azuara (2013) used both a sociocultural perspective and a closely related ecology of language perspective. This allowed them to look beyond the classroom skills-based assessments for gathering data on participants’ reading to include home-based case studies. They found that, in each case, their study of home literacy practices illustrated students’ abilities to a much greater degree than the skills-based assessments.
Reyes and Azuara concluded that they would have had a very diminished view of the students’ abilities in many areas had they solely focused on classroom assessment alone. Rather than ignoring, devaluing, or stereotyping bilingual (or “emerging bilingual”) students, the model that they advocate would serve to challenge deficit views by acknowledging all the knowledge, skills, and abilities students bring with them from home to school.

Finding a culturally responsive solution to instructional issues is not always easy. Delpit (2006) detailed a number of challenges that educators must overcome in order to be effective in a multicultural society: a clash between school and home cultures, stereotyping, refraining from challenging students with perceived cultural deficits, cultural-norms ignorance, and the invisibility of children of color. Delpit cautioned against training teachers to merely service their students as “multicultural clients” (p. 182), advocating a both–and approach to the literacy-development debate between the traditional and the progressive:

If we are to successfully educate all of our children, we must work to remove the blinders built of stereotypes, monocultural instructional methodologies, ignorance, social distance, biased research, and racism. We must work to destroy those blinders so that it is possible to really see, to really know the students we must teach. (Delpit, 2006, p. 182).

In college, Delpit (2006) learned about more progressive methods of teaching language and literacy than the nuns used in her “poor black Catholic school” (p. 12). In her early years of teaching inner-city public-school students, she put the new methods to work, encouraging more actual interaction with people who spoke standardized English
and more writing in context rather than any direct teaching of grammar or language. When she noticed that her White students were progressing far beyond her Black students, however, Delpit’s teaching grew more and more traditional. She came to believe that students who do not come to school already fluent in standard English need to learn the dominant dialect in order to succeed in college and beyond. Although noticing that her students lacked fluency in academic language could be seen as a deficit view, Delpit (2006) recognized that her students were capable of learning the skills that would enable them to meet their future academic challenges. Based on her assessment of their zone of proximal development (Vygotsky, 1978), she provided them with scaffolded instruction that met them where they were and propelled them to the next level.

Gatlin et al. (2020) argued that “the linguistic differences that children bring with them to school should be viewed positively in classrooms and used as strengths to leverage performance in literacy” (p. 31). This includes the ability to speak multiple dialects and multiple languages. They advise teachers to incorporate explicit instruction on context-based language choices and contrastive analysis in order to “decrease the stigmas often associated with being a speaker of NMAE” (p. 31), or Nonmainstream American English.

The present study focused on three primary features of the funds of knowledge element of culturally responsive teaching: the rejection of deficit mindsets, leveraging cultural assets, and minimizing the cultural divide between classroom and home cultures.

**Cultural Tools**

Another element of the sociocultural view of teaching involves the use of “cultural tools” to help students mediate their learning (Maitra, 2017; McIntyre, 2011;
Sewell, 2011; Wearmouth, 2017). These cultural tools, or mediators, come in many forms. Objects, such as manipulatives, books, and computers, can act as cultural tools in learning experiences. Prior learning and language itself can be seen as mediating cultural tools from this perspective. Even people can be mediators, since teachers are the “prime mediators” of their students’ learning experiences (Wearmouth, 2017, p. 2).

A good example of cultural tools in action can be found in the concept of what Vygotsky (1978) called the zone of proximal development (ZPD). A student’s ZPD is just beyond the current reach and can be measured by an assessment of the student’s prior knowledge and understanding of the learning objective. When instruction is designed at their ZPD, students are not able to do the work all by themselves, which necessarily requires teacher assistance, and the work is not so demanding that it causes frustration. Understanding how the ZPD works and how to measure it in students can allow a teacher to scaffold instruction just enough to help bridge what the student is able to do with what he or she is not yet able to do. For students of diverse backgrounds, this bridge created through instructional scaffolding can be built with language support, whether learning a new language (English) or a new dialect (standardized English), or it can be built with other elements of cultural support. Determining students’ cultural backgrounds is a crucial part of identifying their ZPD. Cultural scaffolding involves using the cultures and cultural experiences of students to help manage and increase their academic performance (Chenowith, 2014; Gay, 2002).

Another example of a cultural tool that can be leveraged in both academic and cultural scaffolding is allowing, and even encouraging, what McIntyre (2011) called “verve” (p. 52). Similar to the more widely known code-switching, this moving back and
forth between languages can be helpful in honoring students’ cultural backgrounds, as well as creating an atmosphere of comfort in the classroom and concerning learning in general. Research indicates that use of the native or home language (L1) in learning a new language can lead to greater academic achievement (Nieto, 2010). In response to those who would ban—and have banned—the use of students’ L1 in education, the National Council of Teachers of English (NCTE, 2011) has published resolutions advocating for students’ rights to use their home languages since 1974. The most current NCTE resolution claims that these practices “affirm student voice and address issues of identity, culture, and politics,” while helping to connect home and school.

An example of this practice in literacy instruction can be found in Stewart and Hansen-Thomas’ (2016) case study of “transnational experiences evident in the participant’s life and literacies” (p. 454). Their research centered on a 16-year-old Mexican-American ninth-grade student named “Paula” in a suburban U.S. school. The translingual bilingual Paula wrote a poem in English using sentence frames that allowed her to use Spanish words when she felt they were a better fit. She then translated the poem into her native Spanish. Last, she was encouraged to write a third version of the poem that “entwined” (p. 464) the two languages. Code-switching—what the authors called “translanguaging” (Stewart & Hansen-Thomas, 2016, p. 453)—was essential to Paula’s development in critical thinking and creativity, according to the authors. When analyzing the effects of instructional techniques based on knowledge of Paula’s transnational experiences, the authors found that encouragement to use her native language along with the new language she was learning enabled Paula to express her
identity as a “transnational” (p. 452) bilingual. The adapted instruction also deepened her creativity and use of higher-order thinking skills.

Another example of using students’ home language, in this case a nonstandard dialect of English, relates to teaching Shakespearean sonnets in the secondary English classroom. In an exploration of the language differences among Shakespearean English, the current standardized version of English, and students’ own varieties, Charity Hudley and Mallinson (2014) suggested that students write the same sonnet in two different versions, one using modern standardized English and the other using the version of English they use at home. They could then compare and contrast the two versions in a variety of ways, including analyzing which would be more appropriate in certain situations with certain audiences. Not only do these activities reject a deficit view by allowing students to use their native language as they learn new concepts and skills, but they also fit within the framework of a broader view of the learning context by drawing on students’ experiences and cultural backgrounds. Furthermore, these activities enable teachers to scaffold instruction by providing a cultural bridge between home and school through the use of cultural tools such as code-switching.

Charity Hudley and Mallinson (2014) encouraged explicit classroom discussion of culture and language, so that teachers and students alike can “understand the norms that may differ from classroom to classroom and [one another’s] cultural and linguistic beliefs, values, and practices” (p. 44). To get the discussion started, they suggested an activity in which teachers and students identify on paper the various microcultures that they belong to by virtue of their interests, hobbies, religion, ethnicity, age, etc. and then participate in respectful small group discussions concerning these participations. The
authors noted that these discussions should be prefaced with an understanding that the
goal of the activity is to respect cultural diversity, so that everyone can feel safe in
sharing. They also advocated using this discussion not only as a way to get to know each
other and honor each other’s experiences and personalities, but also as a link to
understanding language diversity. In a sociocultural approach, as all viewpoints, all
backgrounds, and all cultures are valuable and welcome in a sociocultural perspective, so
are all languages and dialects. Understanding another person’s narrative is powerful; “by
sharing their stories, educators and students can bridge differences and build
connections” (Charity Hudley & Mallinson, 2014, p. 45).

The present study focused on two primary features of the cultural tools element of
culturally responsive teaching: the use of mediators and cultural/language scaffolding.

Broadened Learning Context

Another element of culturally responsive teaching (CRT) is a view of the learning
process within a broader-than-usual context. From a sociocultural perspective, culture is a
“context in which learning takes place” (Wearmouth, 2017, p. 2), so that context is
understood in a variety of ways—or depths. The context of the learning process
comprises everything but what the learner is thinking and feeling in that moment.
McIntyre (2011) called these broader-level factors “sociolinguistic variables” (p. 47),
noting their profound impact on student success: community variables, such as historical
and political factors; family variables, such as race/ethnicity, language, income, and
home literacy practices; and school variables, such as curricula, instruction, the “cultural
compatibility” (p. 47) of home and school environments, and teacher attitudes,
expectations, and scaffolding expertise.
Hammond (2015) posited that culture is “software for the brain’s hardware” (p. 22). To apply this analogy to the learning process, we can view students’ brains as computers with different interfaces created by their individual cultures. As students enter the learning space—the physical classroom or the online one—they come with their own personal set of sociolinguistic variables pre-installed. In other words, in order to teach particular students effectively, teachers must learn and understand these very individualized interfaces. Navigating these systems requires the tools that comprise culturally responsive teaching by teachers as mediators of student learning.

CRT connects classroom learning to students’ outside-school worlds. It “reflects the values of the student’s own culture” (Chenowith, 2014, p. 37). Providing this kind of instruction entails understanding students’ sociolinguistic variables in order to leverage their cultural experiences in planning and implementing instruction that balances whatever variables may not be conducive to learning in a classroom setting. According to Wearmouth (2017), teachers have the overwhelming responsibility of creating “safe spaces” (p. 4) where learning processes can take place.

An activity that provides this bridge from classroom to students’ cultural worlds is Chenowith’s (2014) ethnoautobiography, which was designed specifically to teach literacy skills and critical thinking to secondary English students. In the activity, students investigate their cultural backgrounds, as well as their perspectives toward other people and cultures. The lesson begins with student introductions in small groups. Then, students discuss their answers to two questions: (1) “What does it mean to belong to a cultural group?” and (2) “What culture do you think I belong to?” (Chenowith, 2014, p. 38). Next, students draw an object or symbol that represents their cultural heritage. Finally, they
complete a pre-writing survey and use their answers to draft their ethnoautobiography. This activity would situate students in the broad learning context of their small group, classroom, school, family, community, and—in the case of ELs—native country. Working collaboratively and getting to know classmates would increase the likelihood that students feel more comfortable in the learning environment. Because the activity draws on their cultural background, it is also honoring and respecting what students bring to the classroom rather than what they might lack.

In the pandemic-induced emergency online learning of 2020, students’ learning spaces incorporated both school and home contexts. This expansion allowed some teachers, many of whom had previously disregarded the broader learning context outside their own classrooms, to find creative new ways to build relationships with and among students, encourage engagement and interaction, and “prioritize a culture of care” amidst the crises (Newhouse, 2021). Nieto’s (2010) assertion that “it is indisputable that culture, language, and learning are connected” (p. 148) can be seen most clearly in the link between child-rearing techniques and learning preferences. For students whose home culture is not that of the dominant culture—which is the default culture of school—this link can result in discontinuities that can seriously impede the learning process. Research shows that responding to these discontinuities is an intricate process that must involve the teacher as “cultural accommodator and mediator” (p. 155), as well as a focus on the broader school and societal contexts.

The present study focused on two primary features of the broadened learning context element of culturally responsive teaching: family/community connections and virtual spaces.
Social Justice

Nieto’s (2010) five realities that educators must grasp in order to effectively reach and teach diverse students hinge on the social justice dimension of culturally responsive teaching (CRT). The first reality is that affirming diversity concerns social justice because if any student is not respected because of their home culture, then justice is not being served in that environment. The alternative to this—in other words, being mindful of social justice—“means looking critically at why and how our schools are unfair for some students” (Nieto, 2010, p. 270). Nieto’s second reality is that students who are poor or “of color” are the true victims of inequality in the schools and, rather than debating the causes of this inequality, we should be working together for solutions because doing any less is simply perpetuating the problem, thereby causing more children to suffer. The third reality is that educators must recognize diversity as a valuable resource, not a difficulty to overcome—which harkens back to Moll and colleagues’ (1992) concept of funds of knowledge. The fourth reality is that effective teaching requires that teachers respect and affirm their students; this means that teachers must know their students in order to understand their strengths, weaknesses, preferences, motivations, and goals so as to plan lessons and activities that will be engaging and relevant. Nieto’s (2010) fifth and last reality that educators need to know in order to be effective with their students is that only a multicultural person—a person with “firsthand experience with diversity” (p. 272) through learning a new language or experiencing a new culture, for example—is able to affirm diversity.

In short, culturally responsive teaching provides diverse groups of students with the instructional accommodations they need for success (Harmon, 2012). In the
sociocultural approach to instruction—culturally responsive teaching—all viewpoints, all backgrounds, and all cultures are valuable and welcome, as are all languages and dialects. Understanding another person’s narrative is powerful and enables students and teachers to build bridges of understanding between them (Charity Hudley & Mallinson, 2014). Chenowith (2014) explained that the perspectives of all students are valuable—not despite their differences, but because of their differences: Creation of democracy requires all points of view. In the current socio-political culture, this statement even seems to transcend the classroom.

The sense of social justice—framing learning in terms of “making a difference and addressing inequities” (Harmon, 2012, p. 14)—inherent in culturally responsive teaching has been addressed by many researchers. For example, the social justice dimension is clearly illustrated in the public policy institute New America’s eight competencies for CRT (Muñiz, 2020; see Figure 1). One competency encourages teachers to reflect on their “cultural lens” to root out implicit bias in developing “cultural currency” (p. 13). Another competency calls for educators to “recognize and redress bias in the system,” noting that teachers who are aware of institutional bias know that inequity exists in how students are rewarded for their work and “advocate for the disruption of harmful school and district-level practices, policies, and norms” (p. 13). Others of the eight competencies, namely bringing real-world problems into the classroom and promoting respect for student differences, also imply an impetus for change.
Although debate on what to call culturally responsive teaching (CRT) and which practices it constitutes exists (Ferlazzo, 2020; Gonzalez, 2017), there is very little evidence of dissent from the view that CRT is beneficial to students. Many researchers have reported a need for further research on not only on CRT, but also on programs intended to develop CRT skills in teachers (Cheesman & De Pry, 2010; Hill, 2020; Muñiz, 2020). Because much of the research has analyzed classrooms specifically chosen to showcase CRT practices (Byrd, 2016), a comprehensive understanding of CRT in a wide range of contexts has not yet been achieved. The present study aimed to shed light on the CRT practices of teachers in a range of contexts by investigating not only teachers
who reported confidence in this area but also those at the moderate and low levels of the CRT efficacy continuum.

**Self-Efficacy**

Bandura (1977) developed the concept of self-efficacy within his psychological research on behavioral change. He defined self-efficacy as “the conviction that one can successfully execute the behavior required to produce the outcomes” (p. 193). Soon after Bandura’s work, researchers began to apply the construct to education. Many specifically investigated teacher self-efficacy (Tschannen-Moran & Johnson, 2011).

Gibson and Dembo (1984) developed the 30-item Teacher Efficacy Scale (TES), a measure of general teacher efficacy that continues to be the most widely used tool of its kind (Siwatu, 2017). In their three-phase study, they found that teacher efficacy could have an effect on “feedback behaviors and teacher persistence” (p. 579). Based on their findings, they indicated that teachers who had high efficacy with regards to their students’ ability to learn and their own ability to teach seem more likely to provide students with more positive feedback and less criticism, while also spending more time waiting for student response before moving on to the next question and the next student. Teachers with high efficacy also allocated more of their time to activities such as monitoring students and checking student work.

Coladarci (1992) investigated how teachers’ self-efficacy predicted their commitment to teaching in his study of 170 teachers in response to the question, “Suppose you had it to do all over again: In view of your present knowledge, would you become a teacher?” (p. 323). He found that general and personal efficacy were the
strongest two predictors of teaching commitment. In his work, Pajares (1996) found that situation-specific self-efficacy measures are highly predictable.

Later, researchers started to look at self-efficacy in specific content areas and grade levels. Dellinger et al. (2008) developed a measure of classroom-specific self-efficacy beliefs. Guo et al. (2011) explored the self-efficacy of preschool teachers, and Tschannen-Moran and Johnson (2011) explored the self-efficacy of literacy teachers. Phan and Locke (2015) studied self-efficacy in Vietnamese teachers of English as a foreign language, while Velthuis et al. (2015) investigated the self-efficacy of science teachers. Tschannen-Moran and Woolfolk Hoy (2001) found that the degree to which teachers felt a sense of self-efficacy “affects the effort they invest in teaching, the goals they set, and their level of aspiration” (p. 783). Teacher self-efficacy has also been indicated in teachers’ feeling of preparation to teach diverse populations of students (Tucker et al., 2005). Tucker et al. (2005) advocated for increasing teacher efficacy in order to increase academic achievement among diverse students.
CHAPTER 3

METHODS

Research Questions

The present study used a mixed methodology that entailed administering a quantitative survey and qualitative interviews. To examine teacher self-efficacy of culturally responsive teaching during emergency online learning in the fall semester of the 2020–2021 school year, the present study was guided by two research questions:

1. What are secondary teachers’ perceptions of their ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester?
2. How did secondary teachers demonstrate their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester?

Population and Sample

Research Site

The population for the present study consisted of teachers at the four secondary schools in the Riverside Public Schools district that encompasses the entire small mid-Atlantic city of the same name. (All school, city, and participant names are pseudonyms.) This includes four schools: two high schools that serve students in grades 9–12, Central High School and Lincoln High School, and two middle schools that serve students in grades 6–8, Eastview Middle School and Grand Middle School.

Riverside’s population was listed at about 43,000 in the 2010 census and has continued to decrease in population since then. The U.S. Census Bureau (n.d.) estimated
the July 2019 population of the city to be 40,044. That estimate includes 51.5% Black or African American; 44.9% White (not Hispanic or Latino); 4.7% Hispanic or Latino; 1.4% Asian; and 1.7% Two or More Races. The city has a rich history harkening back to its brief but prominent Civil War-era status (Schneider, 2020). Many residents still fly large Confederate flags high on private property throughout the city, arguably symbols of lingering racial unrest from the Civil Rights era, as well as detractions in the eyes of businesses and people looking to find a new home (Crane, 2018; Metcalfe, 2016; Mock, 2015; Schneider, 2020). The city began its growth to renown in the late 1800s with economic ventures in two areas: the institution of what would soon become an internationally known textile mill (Fallows, 2019) and the expansion of tobacco farming and sales (Wallace, 2018).

The mill’s steady decline, coinciding with the decline of tobacco consumption, in the late 1900s sparked an economic downward spiral from which the city has yet to recover (Ayers, 2019; Bozick, 2011; Finkel, 1992; U.S. Census Bureau, n.d.). Crime rates, poverty levels, and unemployment soared, and drug use, gang activity, and at times higher murder rates than even the capital city have served to further deteriorate the quality of life in Riverside (Goren & Cassidy, 2011; Simkiss, 2017). However, downtown revitalization, investment in new energy sources, and economic growth due to an influx of new businesses have improved the quality of life among many city residents in recent years (Adams, 2019; Fallows, 2019).

In the Fall 2020 semester, the school district comprised seven elementary schools, two middle schools, two high schools, and an alternative program that served K–12 students. The total number of students served by all schools in the district was 5,505,
including a total secondary enrollment of 2,827: 1,550 total students at the two high schools and 1,277 total students at the two middle schools (see Table 1). Student enrollment at each secondary school and in all schools across the district has fluctuated up and down in recent years, while the total enrollment in all secondary schools has increased steadily.

Table 1

*Secondary Schools and District Enrollment: Riverside Public Schools*

<table>
<thead>
<tr>
<th></th>
<th>Middle Schools</th>
<th>High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eastview</td>
<td>Grand</td>
</tr>
<tr>
<td>2018–2019</td>
<td>644</td>
<td>580</td>
</tr>
<tr>
<td>2019–2020</td>
<td>684</td>
<td>581</td>
</tr>
<tr>
<td>2020–2021</td>
<td>720</td>
<td>557</td>
</tr>
</tbody>
</table>

At three of the secondary schools in Riverside, non-White students comprised more than 82% of the total population of students in the 2020–2021 school year: 85.6% at Central High School, 83.3% at Eastview Middle School, and 82.8% at Grand Middle School (see Table 2). At Lincoln High School, non-White students comprised 50.6% of the total student population.
Table 2

*Fall 2020 Student Membership by Subgroup*

<table>
<thead>
<tr>
<th></th>
<th>Middle Schools</th>
<th></th>
<th>High Schools</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eastview</td>
<td>Grand</td>
<td>Central</td>
<td>Lincoln</td>
</tr>
<tr>
<td>All Students</td>
<td>720</td>
<td>557</td>
<td>1,285</td>
<td>265</td>
</tr>
<tr>
<td>Gender</td>
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<tr>
<td>Female</td>
<td>359</td>
<td>290</td>
<td>632</td>
<td>149</td>
</tr>
<tr>
<td>Male</td>
<td>361</td>
<td>267</td>
<td>653</td>
<td>116</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>American Indian</td>
<td>1</td>
<td>–</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Asian</td>
<td>19</td>
<td>4</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Black</td>
<td>514</td>
<td>373</td>
<td>945</td>
<td>98</td>
</tr>
<tr>
<td>Hispanic</td>
<td>50</td>
<td>63</td>
<td>114</td>
<td>21</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>–</td>
<td>–</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>White</td>
<td>120</td>
<td>96</td>
<td>185</td>
<td>131</td>
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<tr>
<td>Multiple Races</td>
<td>16</td>
<td>18</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>English Learners</td>
<td>43</td>
<td>45</td>
<td>31</td>
<td>10</td>
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<tr>
<td>Students with</td>
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<tr>
<td>Disabilities</td>
<td>92</td>
<td>109</td>
<td>245</td>
<td>18</td>
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<tr>
<td>Economically</td>
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<td></td>
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<tr>
<td>Disadvantaged</td>
<td>395</td>
<td>314</td>
<td>694</td>
<td>88</td>
</tr>
<tr>
<td>Homeless</td>
<td>–</td>
<td>5</td>
<td>3</td>
<td>–</td>
</tr>
</tbody>
</table>

The Riverside district has been situated at or near the bottom of the list of state standards testing scores for many years (Comprehensive Plan, 2015). Of the 12 total schools in the district, only one elementary school and one of the two high schools participating in the present study (Lincoln High) had full state accreditation for the 2019–2020 school year [source redacted\(^1\)]. The other 10 schools were “accredited with conditions” for 2019–2020 by the state. For the 2020–2021 school year, the state waived accreditation for all schools following the COVID-related cancellation of spring 2020.

\(^1\) References with identifying information have been redacted to maintain anonymity.
state testing. Only 43% of all students in the district passed the annual state reading assessments for students in grades 3–8 and the end-of-course high school assessment [source redacted], which includes 53% of Eastview Middle students, 40% of Grand Middle students, 54% of Central High students, and 95% of Lincoln High students.

Due to the “high poverty” status of all schools in the Riverside school district, all students are eligible for free lunch and breakfast on school days. During the school shutdowns of the Spring 2020 COVID-19 period of emergency online learning (EOL) and through the summer, the school district provided almost 400,000 meals at more than 20 sites across the city (Cotton, 2020). This community-based food distribution continued throughout the virtual learning phases of Fall 2020.

**Research Participants**

Participants in the present study were teachers at all four secondary schools, two middle schools and two high schools, in Riverside Public Schools. In Fall 2020, the total number of secondary teachers was 218, including 2 teachers who served multiple secondary schools (see Table 3).

<table>
<thead>
<tr>
<th></th>
<th>Middle Schools</th>
<th>High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eastview</td>
<td>Grand</td>
</tr>
<tr>
<td>Teachers</td>
<td>53</td>
<td>44</td>
</tr>
<tr>
<td>Students</td>
<td>720</td>
<td>557</td>
</tr>
</tbody>
</table>

**Table 3**

*Riverside Schools Secondary Teachers and Student Populations, Fall 2020*
Released teacher quality ratings (in terms of experience and/or teaching in the endorsed field) revealed that many teachers at all secondary schools were teaching outside their field of endorsement (see Table 4). In terms of educational attainment, the highest degree earned by 47% of all teachers in the Riverside district was a bachelor’s degree, while the highest degree earned by 49% of teachers in the district was a master’s degree. In addition, 3% of teachers in the district had earned post-graduate certification beyond a master’s degree, and 1% had earned doctoral degrees.

**Table 4**

*Secondary Teacher Professional Characteristics by Percentage, Fall 2020*

<table>
<thead>
<tr>
<th></th>
<th>Eastview</th>
<th>Grand</th>
<th>Central</th>
<th>Lincoln</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisionally licensed</td>
<td>10.9</td>
<td>4.8</td>
<td>13.1</td>
<td>7.7</td>
</tr>
<tr>
<td>Out-of-field teachers</td>
<td>15.1</td>
<td>16.7</td>
<td>9.1</td>
<td>11.5</td>
</tr>
<tr>
<td>Inexperienced Teachers</td>
<td>5.7</td>
<td>9.5</td>
<td>3.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Educational attainment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>47.0</td>
<td>35.0</td>
<td>39.0</td>
<td>48.0</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>51.0</td>
<td>55.0</td>
<td>54.0</td>
<td>52.0</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>0.0</td>
<td>4.0</td>
<td>1.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Research Design: Explanatory-Sequential Mixed Methods**

The present study followed a mixed methods design which includes both a quantitative study and a qualitative study. Mixed methods research “often will provide the most informative, complete, balanced, and useful research results” (Johnson et al., 2007, p. 129). In particular, an explanatory-sequential mixed methods design was used in
the present study. In this design, the two different but related research studies are undergone in sequential order, with the quantitative study preceding the qualitative study. In essence, the Phase 1 quantitative data collection and analysis is followed by the Phase 2 qualitative data collection and analysis, which aims to explain the previous quantitative Phase 1 results (Creswell & Plano Clark, 2011). Although the explanatory-sequential mixed-methods design is usually “quantitative dominant” (Johnson et al., 2007, p. 124), the present study attempted to balance the scales of importance between quantitative and qualitative data. This balance was described by Schoonenboom and Johnson (2017) as “equal-status” or “interactive” mixed methods research because “both the qualitative and the quantitative components, approaches, and thinking are of equal value, they take control over the research process in alternation, they are in constant interaction, and the outcomes they produce are integrated during and at the end of the research process” (p. 112-113).

In the present study, the quantitative Phase 1 informed the qualitative Phase 2, in part by setting the boundaries as do lenses in binoculars, while the qualitative Phase 2 allowed for a turning of the proverbial dial to zoom in for a closer look within those same boundaries (see Figure 2). This further exploration of a formerly bound area serves to justify the use of a mixed-methods design, rather than either quantitative or qualitative separately, while also expressing the relatively equal importance of the two views, one wide and the other close-up.
As illustrated in Figure 2, there were essentially three points of integration (Schoonenboom & Johnson, 2017, p. 115) of quantitative and qualitative methods in the present study. Following the study that Ivankova and colleagues (2006) used to illustrate an explanatory-sequential mixed-methods design, the present study integrated quantitative and qualitative methods at the following points:
1. When designing the study by including both a quantitative and qualitative research question.

2. When selecting participants for the qualitative interviews from the quantitative questionnaire results.

3. When analyzing the collected data from both quantitative and qualitative phases for final interpretation.

**Initial Integration: Research Questions**

The present study included both a quantitative and a qualitative research question, which necessitated the use of a mixed-methods approach. The following research questions framed the present study:

1. What are secondary teachers’ perceptions of their ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester?

2. How did secondary teachers demonstrate their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester?

**Phase 1: Quantitative Methods**

**Quantitative Data Collection.** Following approval by the institutional review board (see Appendix B) and the school district administration (see Appendix E), the present study began with the quantitative Phase 1. Participant selection combined convenience sampling with voluntary response sampling. All teachers at the four target secondary schools received an email with a link to a digital version of the two-part Culturally Responsive Teaching Self-Efficacy (CRTSE) Survey (see Appendix D). In
addition, the researcher recorded analytic memos while navigating the process (see Appendix I).

**Quantitative Instrumentation.** The CRTSE Survey was designed in two parts: (1) a series of demographic and teaching experience questions, followed by (2) a survey based on the 41-item CRTSE scale developed by Siwatu (2007). The CRTSE Survey was created using the online software at Survey Monkey (http://www.surveymonkey.com).

**Part 1: Demographic Information and Teaching Experience.** This introductory section of demographic and teaching experience questions was partially adapted from Paneque and Barbetta’s (2006) study of the efficacy of special education teachers of English learners with disabilities. Items in the introduction section include general demographic information, education, teaching experience and current placement.

**Part 2: CRTSE Scale.** The CRTSE Scale, developed by Siwatu (2007), asks respondents to rate statements about teaching actions on a scale of 0 (not confident at all) to 100 (completely confident). Although many researchers prefer five-point or similarly smaller Likert scales, Siwatu (2007) used the 100-point scale because Bandura, who coined the term “self-efficacy” in 1977, believed smaller scales to be “less reliable because they do not have the ability to differentiate between individuals who respond the same” (p. 1090). Siwatu provided permission for the use of the CRTSE scale in the present study (see Appendix C).

Siwatu’s (2007) CRTSE scale (see Appendix D) was selected for the present study because it has been used effectively repeatedly to investigate teachers’ self-efficacy of culturally responsive teaching. Pilot testing, Siwatu’s later testing, and numerous later research studies since (e.g., Cruz et al., 2019; Siwatu et al., 2009; Siwatu, 2011) have
used the CRTSE scale with success. Reliability testing of the 41 items in the 2007 revision of the scale revealed a high Cronbach’s alpha score of .96 internal validity, ensuring that the items were all closely related.

Teacher self-efficacy of culturally responsive teaching refers to how confident teachers are that they can successfully practice culturally responsive teaching. Siwatu (2007) developed the 41-item CRTSE scale. Following an extensive review of the literature, Siwatu based the CRTSE scale on 27 competencies that “reflect the skills and knowledge that are clearly identifiable among teachers who engage in culturally responsive teaching” (p. 1089). The competencies encompass four categories, each of which is connected to one of the four practices used by teachers implementing CRT: (1) Curriculum and instruction: CRT promotes the use of students’ cultural experiences, prior knowledge, and learning preferences; (2) Classroom management: CRT promotes culturally compatible classroom environments; (3) Student assessment: CRT promotes ensuring students have many opportunities to demonstrate learning with a variety of unbiased assessments; and (4) Cultural enrichment: CRT promotes equipping students with the skills they need to succeed in the traditional academic culture while maintaining their home culture (Cruz et al., 2019; Siwatu, 2007).

In his paper-based CRTSE Scale, Siwatu (2007) separated the 41 items into two parts with statements 1–19 on page 1 and statements 20–41 on page 2. A labeled scale of 0–100 and the words “I am able to” appeared at the top of each page (see Figure 3). Participants wrote the number that represented their self-efficacy in carrying out each action in a blank to the left of each numbered statement.
Figure 3

*Paper-Based Format of Siwatu’s (2007) CRTSE Scale*

<table>
<thead>
<tr>
<th>0 No Confidence At All</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100 Completely Confident</th>
</tr>
</thead>
</table>

I am able to:

- 1. adapt instruction to meet the needs of my students.
- 2. obtain information about my students’ academic strengths.
- 3. determine whether my students like to work alone or in a group.
- 4. determine whether my students feel comfortable competing with other students.

The present study adapted Siwatu’s scale to better focus participants on the study boundary and take advantage of the online format. In the adapted version, each statement began with “I was able to” and ended with “in Fall 2020” (see Figure 4 and Appendix D). A sliding scale under each statement enabled participants to select their self-efficacy level in performing each action in Fall 2020 by sliding the bar across to the desired location. The resulting percentage number also then appeared in the gray box at the right side of the scale.
Quantitative Data Analysis. When at least 40 consenting participants had completed the survey, the researcher downloaded CRTSE Survey results from Survey Monkey as an Excel document placed in a password-protected folder on the researcher’s computer. Based on the population size ($N=218$), as well as the length of the CRTSE Survey (demographic and teaching experience questions plus 41 items on the CRTSE Scale), this minimum number of participants seemed appropriate for the present study.

Immediately blinding fields containing identifying information (names and email addresses) secured this information until after selection of Phase 2 participants by copying the Excel data spreadsheet and immediately deleting the columns of identifying information in the copied document. A descriptive analysis on the results of Part 1 of the CRTSE Survey, Demographic Information and Teaching Experience, via SPSS provided details on frequencies (including mean, median, mode, standard deviation, and standard error of the mean), variance of scores, and minimum and maximum scores for each
measure. SPSS descriptive analysis of Part 2 of the Survey, the adapted 41-item CRTSE scale (Siwatu, 2007), provided mean, standard deviation, and minimum and maximum scores for each item.

Additional analysis also involved identifying teachers with high, moderate, and low CRTSE beliefs. A total CRTSE score resulted from the summing of each participant’s answers. Answers to the 41 items can range from 0 (no confidence at all) to 100 (completely confident), so total scores can range from 0 to 4,100. Participants with higher total scores are overall more efficacious in their ability to provide culturally responsive teaching than participants with lower scores (Siwatu, 2007, 2011). Dividing each participant’s summed answers (the CRTSE score) by the number of items provided what Siwatu called a CRTSE strength index. The strength index, which can range from 0 to 100, indicates the strength of participants’ CRTSE beliefs; higher strength indices represent stronger beliefs.

After determining CRTSE scores and strength indices, participants were sorted into three groups: low, moderate, and high CRTSE. Adapting Siwatu’s (2011) “median split method” of identifying participants with high and low CRTSE, the present study used a trichotomous method that extended Siwatu’s range by more than 45% in order to further explore the range of efficacy experienced by participants (see Table 5).
Table 5

*Siwatu’s (2011) and the Present Study’s Phase 2 Identification Methods*

<table>
<thead>
<tr>
<th>CRTSE Level</th>
<th>Siwatu’s (2011) ID Method</th>
<th>Present Study’s ID Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low CRTSE</td>
<td>Total score: 2270–3369</td>
<td>1,640–2,459</td>
</tr>
<tr>
<td></td>
<td>Strength index: 56–88</td>
<td>40–59</td>
</tr>
<tr>
<td>Moderate CRTSE</td>
<td>Total score: —</td>
<td>2,460–3,279</td>
</tr>
<tr>
<td></td>
<td>Strength index: —</td>
<td>60–79</td>
</tr>
<tr>
<td>High CRTSE</td>
<td>Total score: 3370–3961</td>
<td>3,280–4,100</td>
</tr>
<tr>
<td></td>
<td>Strength index: 84–99</td>
<td>80–100</td>
</tr>
</tbody>
</table>

**Midpoint Integration: Participant Selection**

Quantitative data analysis informed selection of the present study’s Phase 2 interview participants. One of the questions in Part 1 asked participants to indicate their willingness to participate in a follow-up interview. A negative response to this question resulted in elimination from the participant pool at this point. In the Excel spreadsheet, high CRTSE, moderate CRTSE, and low CRTSE participants were separated into three separate sheets. Participants in the low CRTSE group were assigned a number based on their row number in the Excel document, and an online random number generator facilitated selection of two participants. Repeating this process resulted in two participants selected from the moderate and high CRTSE groups. Participants selected for Phase 2 thus included a total of six teachers (see Figure 5).
Figure 5

*Participant Selection for Phase 2 Qualitative Interviews*

Phase 2: Qualitative Methods

**Qualitative Data Collection.** As detailed in the previous section, sampling in the qualitative Phase 2 of the present study primarily took the form of asking for volunteers during the quantitative Phase 1 data collection. The six Phase 2 participants were randomly selected from Phase 1 participants who indicated a willingness to proceed with qualitative interviews after being sorted into modified tertiles based on Phase 1 scores. The researcher sent participants an email notifying them of their selection for participation with a list of possible dates and times for interviews. When participants responded, interviews were scheduled using Google Calendar, and participants received invitations to the online conferencing sessions. In addition, analytic memos were recorded throughout Phase 2 as the researcher interacted with participants in setting up interviews via email, during and following interviews, and during coding and analysis of interview transcripts (see Appendix I).

**Qualitative Instrumentation.** The six interviews with participants purposely selected from Phase 1 quantitative data followed a semi-structured interview protocol designed to further explore their self-efficacy of culturally responsive teaching. The
interview protocol used in the present study was adapted from one used in Little’s (2020) qualitative phenomenological CRTSE study (see Appendix H). All interviews were conducted in one-on-one sessions using an online video conferencing platform (Google Meet or Zoom). Participants gave consent for the interviews to be recorded in video and also in audio via the researcher’s cell phone.

Sessions began with a review of the informed consent that participants had agreed to in completing the online CRTSE Survey to ensure that participants understood their participation would remain voluntary and could be terminated at any time. Participants also provided consent for the recording of the interview. The four interview questions focused on teachers’ perceptions of culturally responsive teaching, connecting home and school culture, parent communication, and accessing students’ prior knowledge, as well as their greatest success and challenge during the emergency online learning of Fall 2020. Follow-up questions in each category explored these ideas further. Many questions referred to participants’ beliefs and experiences specifically during the emergency online learning of the Fall 2020 semester, and others referred to their beliefs and experiences in general. The wording of questions clearly indicated which reference was desired. At the end of each interview, video files (via Google Meet or Zoom) and audio files (via the researcher’s cell phone) were moved to a password-protected folder on the researcher’s computer.

**Qualitative Coding and Data Analysis.** Recorded interviews were uploaded to and transcribed with the online transcription software, Otter.ai (https://www.otter.ai). Following the automated transcription process, the researcher corrected the interview text
while listening to the audio and then downloaded the transcripts as DOC files and PDF files. They were stored them in a password-protected folder on the researcher’s computer.

The coding process took place in two cycles. Cycle 1 Coding consisted of (1) coding interview transcripts for “a priori,” or predetermined, codes (Creswell & Creswell, 2018) based on the four dimensions of culturally responsive teaching that framed the present study—funds of knowledge, cultural tools, broadened learning context, and social justice; (2) looking for the rich, textured description in participants’ own voices that Saldaña (2012) called “in-vivo coding”; and (3) looking for “surprising codes” that are unexpected but relevant (Creswell & Creswell, 2018). Transcripts from the six interviews were combined into one DOC file and labeled with codes via Microsoft Word’s comment feature and highlighting (see Figure 6). Comments listed a priori codes, while green highlighting indicated excerpts labeled with in-vivo codes, and yellow highlighting indicated excerpts labeled with surprising codes.

Figure 6

Example of Coding Combined Transcripts in Word

I think so because if you know what's going on at home, that can help you to make sure you can best support the student in the classroom. If you're aware of, you know, different struggles and things that students might be facing at home. One thing in particular I can think of is earlier this year, I had a student, her stepfather, initially he had fallen off of a roof. And he had broken something and he was bedridden. And several of the times I asked the student to participate, and finally she told me, "I was getting him to the bathroom," like that was her job during the day was to make sure he could get his food, his medication, and get to the bathroom. Well, this same stepfather ended up passing away. So, you know, knowing these kinds of situations and things can help you to help the child, the whole child.

And can you also speak to how you were able to help that student and how it improved achievement? Well, I talked to her teachers, and let—she didn't really feel comfortable... I had worked with her in the past, even though she was a freshman this year. I met with her teachers to let make her teachers aware of what was going on. And they were able to, you know, modify certain things...
At this time, labeled excerpts were copied from the Word document to an Excel spreadsheet and organized by sheets named with codes or types of codes. Phase 2 participants’ pseudonyms headed the columns of each sheet. Initially the spreadsheet contained 11 sheets: Funds of Knowledge, Cultural Tools, Learning Context, CRT Definition, EL Issues, Problems with Virtual, Successes, Challenges, In-Vivo, and Surprises (see Figure 7).

**Figure 7**

*Example of Transcript Excerpts Organized by Code in Excel*

<table>
<thead>
<tr>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gulf</td>
<td>Kent</td>
<td>Gee</td>
<td>D</td>
<td>E</td>
<td>Owen</td>
</tr>
<tr>
<td>&quot;I wonder if you can help me, you know, I've been over here...&quot;</td>
<td>&quot;I wonder if you can help me, you know, I've been over here...&quot;</td>
<td>&quot;I wonder if you can help me, you know, I've been over here...&quot;</td>
<td>&quot;I wonder if you can help me, you know, I've been over here...&quot;</td>
<td>&quot;I wonder if you can help me, you know, I've been over here...&quot;</td>
<td>&quot;I wonder if you can help me, you know, I've been over here...&quot;</td>
</tr>
</tbody>
</table>

During Cycle 2 coding, Cycle 1 codes were reviewed to eliminate overlapping or redundant codes. In this phase, the data labeled “EL Issues” was copied to the “Learning Context” sheet. Both interview excerpts coded “EL Issues” came from the interview with Ms. Gulf, the Phase 2 participant with the lowest CRTSE. The first excerpt described a situation in which an English learner ran away from home until “they finally found her in a tent somewhere down in North Carolina with her boyfriend.” The other excerpt labeled
“EL Issues” was about an English learner who left the country to visit his native Mexico and got stuck there, according to his messages, which also included videos of his motorcycle in the desert. Although these details specifically related to issues with English learners, it was decided that they more prominently supported the concept of a broadened learning context that is so integral to the CRT framework. The transcripts also contained many excerpts labeled with in-vivo codes. After analysis, the researcher decided to sort these excerpts into other codes that they predominantly supported to add vivid description in participants’ own voices (Saldaña, 2012). Table 6 lists a redundant in-vivo excerpt for each Phase 2 participant and identifies the new code for each.

**Table 6**

*Overlapping In-Vivo Codes Recoded*

<table>
<thead>
<tr>
<th>Participant</th>
<th>In-Vivo Excerpt</th>
<th>New Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Gulf</td>
<td>“Not everybody learns the same way. I have to see it, and I have to write it. And I know others, you could just tell them and that's it. They've got it. Or if they read it, they've got it. I got to have it all three ways. Like some of my students that are from different countries, if you can show them while you're trying to explain it, ‘Oh, I got that, I understand.’”</td>
<td>Cultural Tools</td>
</tr>
<tr>
<td>Ms. Kent</td>
<td>“I think we're doing the Prologue to the Canterbury Tales, the first 18–20 lines. I said, ‘If you convert it to Spanish and say it, I'll double your points.’ And she did it. She converted it to Spanish, and she got up and she said it in Spanish. I got [the Spanish teacher] to come in the room. He sat beside me with the paper and he listened to her and he went, ‘Yeah, she nailed it.’ Of course, I had no idea what she was saying, but he did. He did and he had the paper.”</td>
<td>Cultural Tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Mediating learning experiences</em></td>
</tr>
<tr>
<td>Mr. Gee</td>
<td>“I had a child getting suspended repeatedly for swearing, and I sat down at the table with the Funds of Knowledge”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Leveraging home language (L1)</em></td>
</tr>
<tr>
<td>CRTSE Level</td>
<td>Teacher</td>
<td>Quote</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Moderate</td>
<td>(Moderate CRTSE)</td>
<td>father and the child. And the father just said, I don't know what's bleeping wrong with my kid. And bleep this and bleep that. I said, ‘He hears this as normal conversation here. This is his home culture, and it's fine. But he's not understanding when he goes to school that he can't talk like that.’ And so that actually started to improve.”</td>
</tr>
<tr>
<td>Moderate</td>
<td>Ms. Hanes (Moderate CRTSE)</td>
<td>“I think really teachers have to stop thinking that learning has to happen this way and no other way. I think we've got to be more flexible, especially now. I can only imagine what they go through. And then [when] English isn't your first language... We've got to be flexible in order for them to achieve. We can't just say, ‘Here it is.”</td>
</tr>
<tr>
<td>High</td>
<td>Ms. Owen (High CRTSE)</td>
<td>“Yeah, I mean, I don't like phrase it like, you know, ‘What's your home life like?’ but I think just like building a relationship with them and getting to know them better. A lot of times, they'll just divulge it to you. And, you know, especially if you just even listen to the way they talk, they'll say it, like, “Oh, I had to get my sibling ready for school because mom leaves for work at seven, or you know, get my sibling on the bus or I've had students say like, you just have to listen and like pick up on things</td>
</tr>
<tr>
<td>High</td>
<td>Ms. Neal (High CRTSE)</td>
<td>“For example, that 12th-grade student, I mean, we had been practicing for this reading test like crazy, you know, and [her] being a newcomer, I felt like it was just a mountain. So, I mean, we have practiced all year, test-taking strategies, and we use some of the practice tests and I would have her read it and take her dictionary and, you know, do different things with that. And then the waivers did away with the SOL test and took that mountain out of her way for last year. So she graduated and didn't have to take the reading or the writing [tests].”</td>
</tr>
</tbody>
</table>

**Final Integration: Triangulation**

A final integration of quantitative and qualitative data involved “triangulation” in the traditional sense: mixing two different methods for the purpose of seeking
“convergence, corroboration, correspondence of results from different methods” (Schoonenboom & Johnson, 2017, p. 110). Furthermore, this triangulation involved analysis of the combined quantitative data, qualitative data, and the analytic memos made throughout the process (Appendix I). In keeping with the present study’s explanatory-sequential mixed methodology, the aim of this final analysis was to find an explanation or interpretation of the quantitative data within the qualitative data. Table 7 details the role that each data source played in addressing each research question.

**Table 7**

*Research Questions and Data Collection*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Collection Method</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are secondary teachers’ perceptions of their ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester?</td>
<td>Culturally Responsive Teaching Self-Efficacy (CRTSE) Survey</td>
<td>Part 1: Demographic and teaching experience data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Descriptive statistics: frequencies (mean, median, mode, standard deviation, standard error of the mean); score variance; minimum/maximum scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Part 2: 41-item CRTSE scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Descriptive statistics: frequencies (mean, standard deviation, standard error of the mean); minimum/maximum scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CRTSE Score (sum of scores)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• CRTSE Strength Index (CRTSE Score divided by number of items scored)</td>
</tr>
</tbody>
</table>
2. How did secondary teachers demonstrate their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester?

<table>
<thead>
<tr>
<th>Semi-structured interviews</th>
<th>Analytic memos</th>
<th>Interview transcripts</th>
<th>Coding</th>
</tr>
</thead>
</table>

CHAPTER 4

FINDINGS

The purpose of the present explanatory-sequential mixed-methods study was to examine teacher’s culturally responsive teaching self-efficacy during emergency online learning. Data collection included quantitative data from a two-part online survey, qualitative data from follow-up interviews with participants selected based on the quantitative data, and analytic memos recorded during the qualitative phase. The study aimed to answer two research questions:

1. What are secondary teachers’ perceptions of their ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester?

2. How did secondary teachers demonstrate their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester?

The remainder of this chapter is focused on explaining findings related to each of these questions.

Quantitative Findings: Research Question 1

The first research question concerned the perceptions secondary teachers had about their own ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester. To address this question, the two-part online CRTSE Survey was developed (see Appendix D). The survey was emailed to all teachers at the 4 Riverside Public Schools secondary schools on March 3, 2021. A total of 64 people submitted the CRTSE Survey over the following 24 days.
Data Cleaning

Cleaning of the quantitative data began in Excel. Of the 64 people who submitted the CRTSE Survey, 20 did not provide consent by typing their name in the blank below the consent form and were eliminated from the participant pool (see Figure 8). Participant names and email addresses were immediately removed from the working copy of the Excel document in order to blind identifying data until after quantitative data analysis had been completed. Many of the questions in Part 1 (demographic and teaching experience) of the CRTSE Survey were multiple choice, which spread respondent answers to these questions across multiple columns. To ease later statistical analysis in SPSS, the researcher merged answers into the same column, and deleted cleared columns. Of the remaining 44 respondents, the two who reported that they did not teach students in a classroom in Fall 2020 (one “counselor” and one “library/media”) were eliminated from the participant pool.

Figure 8

CRTSE Consent Form Acknowledgement

AGREEMENT TO PARTICIPATE: By entering your NAME (First Last) below, you acknowledge that you have read the information in the Consent Form above and agree to participate in this research with your responses to this survey and with the knowledge that you are free to withdraw your participation at any time without penalty.
Across the 41-item CRTSE Scale that comprised Part 2 of the CRTSE Survey, there were 123 missing values at this point, representing 7.1% of the total possible values ($n=1,722$) for the 42 respondents. Of the 42, 20 skipped at least one item on Part 2 of the survey. More than half of these respondents ($n=11$) only skipped one of the 41 items. In order to mediate the effect of the missing values on the overall validity of statistics, participants who skipped more than 25% of survey questions were eliminated from the pool. This percentage included one participant who skipped 46.3% ($n=19$) of the questions, one participant who skipped 36.59% ($n=15$) of the questions and another participant who skipped 34.15% ($n=14$) of the questions. Removing these participants with a large number of missing answers reduced the total number of missing values from 123 to 75, down to 4.7% from 7.1%.

**Quantitative Analysis**

At this time, the Excel document was imported to SPSS and descriptive statistics were run. The remaining 39 teachers ($n=39$) included teachers from all 4 secondary schools in the district, constituting 1.38% of the 2,827 teachers working in the 4 schools in Fall 2020 (See Table 8). All participants indicated that they taught English learners and/or students with disabilities in Fall 2020. The greatest number of surveys ($n=17$) was completed by teachers at the school with the greatest number of teachers, Central High ($N=98$). The lowest number of surveys ($n=4$) was completed by teachers at the school with the second greatest number of teachers, Eastview Middle ($N=53$).
Table 8

*CRTSE Surveys Submitted with Consent (n=39)*

<table>
<thead>
<tr>
<th>Surveys Completed</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Eastview Middle School</td>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td>Grand Middle School</td>
<td>10</td>
<td>25.6</td>
</tr>
<tr>
<td>Central High School</td>
<td>18</td>
<td>46.2</td>
</tr>
<tr>
<td>Lincoln High School</td>
<td>7</td>
<td>17.9</td>
</tr>
</tbody>
</table>

*Note:* Includes only surveys submitted with less than 25% missing values.

Descriptive statistics were run on the data collected from the 39 participants (see Table 9). The number of female respondents ($n=25$) was nearly double the number of male respondents ($n=14$), and the number of White/Caucasian respondents ($n=24$) was more than double the number of non-White/Caucasian respondents ($n=10$). (Participants were allowed to input their own terminology for Race/Ethnicity, and this resulted in three city names and one answer of “Non-Hispanic.”) More than half (56.4%) of participants were between the ages of 45 and 64 ($n=22$). In the area of educational attainment, 66.7% of participants had earned at least a master’s degree ($n=26$). Participants who had taught more than 15 years represented the largest group ($n=17$) at 43.6%. All participants spoke English as a native language, and only 15.4% ($n=6$) reported any degree of fluency in a second language.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>64.1</td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>35.9</td>
</tr>
<tr>
<td>Race/ethnicity*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“African American”/“Black”</td>
<td>8</td>
<td>20.5</td>
</tr>
<tr>
<td>“Biracial”</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>“Caucasian”/“White”/“W”</td>
<td>23</td>
<td>59.0</td>
</tr>
<tr>
<td>“Mixed”</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>“Non-Hispanic”</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>“Post-Colonial European”</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>City names (withheld)</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>No answer</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Age range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>7</td>
<td>17.9</td>
</tr>
<tr>
<td>35-44</td>
<td>9</td>
<td>23.1</td>
</tr>
<tr>
<td>45-54</td>
<td>13</td>
<td>33.3</td>
</tr>
<tr>
<td>55-64</td>
<td>9</td>
<td>23.1</td>
</tr>
<tr>
<td>65 and older</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Highest educational attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>8</td>
<td>20.6</td>
</tr>
<tr>
<td>Some graduate work</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>15</td>
<td>38.5</td>
</tr>
<tr>
<td>Some post-graduate work</td>
<td>10</td>
<td>25.6</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Number of years teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-1</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>2-4</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>5-9</td>
<td>9</td>
<td>23.1</td>
</tr>
<tr>
<td>10-14</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>15 or more</td>
<td>17</td>
<td>43.6</td>
</tr>
<tr>
<td>Content area taught in Fall 2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career/Technical</td>
<td>10</td>
<td>25.6</td>
</tr>
<tr>
<td>English/Language Arts</td>
<td>6</td>
<td>15.4</td>
</tr>
<tr>
<td>English as a Second Language (ESL)</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
<td>7.7</td>
</tr>
<tr>
<td>History/Social Studies</td>
<td>6</td>
<td>15.4</td>
</tr>
</tbody>
</table>
Descriptive statistics were also run in SPSS for participant answers to Part 2 of the CRTSE Survey, adapted from Siwatu’s (2007) CRTSE Scale. Appendix G shows the number of respondents who responded to each item (N), the minimum (Min) and maximum (Max) answers submitted, and the mean (M), standard error (SE), and standard deviation (SD) for each of the 41 items. The first item listed asked respondents to quantify the confidence they had in teaching students from diverse backgrounds during “normal” (face-to-face) classes. All participants (n=39) provided an answer to this question, and answers varied from 29 to 100 with a mean of 80.33.

Analysis of the 41-item CRTSE Scale as arranged by descending mean reveals that the four items that specifically mention English language learners—numbers 18 (M=43.67), 22 (M=30.84), 30 (M=50.28), and 31 (M=53.14)—fall in the lowest quartile. All but one of the 12 items that mention “culture” specifically (including variants “cultures” and “culturally”)—numbers 5 (M=67.23), 6 (M=55.92), 13 (M=65.84), 16 (M=64.36), 17 (M=38.85), 19 (M=40.54), 27 (M=52.00), 28 (M=59.31), 29 (M=32.10), 33 (M=51.03), 35 (M=61.33), and 41 (M=53.97)—fell within the lower half of average
responses. Number 12—developing a community of learners in a class of “students from
diverse backgrounds” \( (M=67.79) \)—averaged 15\(^{th}\), but the other three items mentioning
diversity—“diverse cultural backgrounds” (number 35; \( M=61.33 \)), “culturally diverse
students” (number 33; \( M=51.03 \)), and “linguistically diverse students” (number 23;
\( M=45.82 \))—all averaged much lower, at 24\(^{th}\), 34\(^{th}\), and 36\(^{th}\), respectively.

Results of nearly half of the 41 survey items spanned 0–100 \( (n=19) \), which means
that, on these items, at least one respondent reported having no confidence at all in their
ability to perform an action in Fall 2020 (a score of 0) and at least one respondent
reported having complete confidence in their ability to perform this same teaching action
in Fall 2020 (a score of 100) for 46.3% of the items. Six items reported a span of 1–100
(14.6%), and four items reported a span of 2–100 (9.8%). The 11 statements with the
lowest average scores, representing the lowest 26.83%, reported a span of 0–100. These
wide spans of responses are also indicated by the high standard deviations of items,
which ranged from \( SD=18.408 \) for item 1 (“Adapt instruction to meet the needs of my
students,” \( M=71.82 \)) to \( SD=36.599 \) for item 18 (“Greet English language learners with a
phrase in their own language,” \( M=43.67 \)).

Summing each participant’s answers on the 41-item CRTSE Scale resulted in a
total CRTSE score and averaging their answers (dividing the CRTSE score by 41)
resulted in a CRTSE strength index. CRTSE scores can range from 0 to 4100 and are
aligned with participants’ culturally responsive teaching self-efficacy, with higher
CRTSE scores indicating greater levels of confidence. CRTSE strength indices, which
can range from 0 to 100, indicate the strength of participants’ CRTSE beliefs, with higher
strength indices representing stronger beliefs.
Phase 1 participants’ total CRTSE scores ranged from 515 to 3705 with a mean of 2416, and their CRTSE strength indices ranged from 12.88 to 96.75 with a mean of 62.06. The lowest CRTSE score and strength index belonged to the same participant, a “Biracial” female science teacher at Grand Middle School, in the 25–34 age range, who had been teaching 2–4 years. The highest CRTSE strength index belonged to a “White” female special education teacher at Central High School in the 55–64 age range who had been teaching 15+ years.

**Results from English as a Second Language Teacher.** ESL teachers are generally educated in the practices aligned with culturally responsive teaching. Their students, all English learners, are often extremely diverse in not only language, but also ethnicity, educational background, and more. Only one participant reported teaching ESL in Fall 2020, a “Caucasian” [her word] female teacher at Central High School in the 35–44 age range who had been teaching 10 to 14 years. Her CRTSE score, 3705, was the highest CRTSE score of all Phase 1 participants. Her strength index was 90.37.

**Results from Special Education Teachers.** Teachers often have decreased expectations for students with disabilities as compared with their expectations for other students, and the perceptions of special education teachers are impacted by how well they understand their own ideas concerning diverse groups of students (Cruz et al., 2019). Five Phase 1 participants identified themselves as special education teachers. Their average CRTSE score was 2860, and their average strength index was 83.98. This represented a much higher score and strength index than the average for all Phase 1 participants, though still much lower than the ESL teacher’s score and index (see Table 10).
### Table 10

*Overall Average CRTSE Scores as Compared to ESL and Special Education Teachers*

<table>
<thead>
<tr>
<th></th>
<th>CRTSE Score</th>
<th>Strength Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Phase 1 Participants (n=39)</td>
<td>2416</td>
<td>62.06</td>
</tr>
<tr>
<td>Special Education Teachers (n=6)</td>
<td>2860</td>
<td>83.98</td>
</tr>
<tr>
<td>ESL Teacher (n=1)</td>
<td>3705</td>
<td>90.37</td>
</tr>
</tbody>
</table>

### Selection of Phase 2 Participants

Participants with low CRTSE (1640–2459) and a low strength index (40–59) \[n=13\]; moderate CRTSE (2460–3279) and a moderate strength index (60–79) \[n=14\]; and high CRTSE (3280–4100) and a high strength index (80–100) \[n=8\] were grouped separately in three new sheets of the working Excel document (see Table 11). At this time, the researcher eliminated four participants from the pool because their CRTSE score and/or strength indices fell below the minimum threshold for Low CRTSE or because their CRTSE score and strength indices were mismatched. This left 35 participants in the pool.

### Table 11

*Phase 1 Participants by CRTSE and Strength Index at Phase 2 Selection*

<table>
<thead>
<tr>
<th></th>
<th>CRTSE Score</th>
<th>Strength Index</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>1640–2459</td>
<td>40–59</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>2460–3279</td>
<td>60–79</td>
<td>14</td>
</tr>
<tr>
<td>High</td>
<td>3280–4100</td>
<td>80–100</td>
<td>8</td>
</tr>
</tbody>
</table>
The 11 participants who did not indicate a willingness to participate in follow-up interviews were eliminated at this time, which left 24 participants who had indicated a willingness to participate in Phase 2 (see Table 12).

### Table 12

*Phase 1 Participants Open to Phase 2 Participation*

<table>
<thead>
<tr>
<th></th>
<th>Willing to Participate in Interview (n=24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low CRTSE (n=16)</td>
<td>10</td>
</tr>
<tr>
<td>Moderate CRTSE (n=18)</td>
<td>10</td>
</tr>
<tr>
<td>High CRTSE (n=4)</td>
<td>4</td>
</tr>
</tbody>
</table>

Participants in the low CRTSE group were assigned a number based on their row number in the Excel document, and an online random number generator facilitated selection of two participants. Repeating this process resulted in two participants selected from the moderate and high CRTSE groups.

### Qualitative Findings: Research Question 2

The present study’s second research question asked how secondary teachers demonstrated their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester. Semi-structured qualitative interviews with select Phase 1 participants aimed to address this question.

### Participants

A total of six participants were selected (two each from the pools of low, moderate, and high CRTSE) at random. Following selection of the six participants for Phase 2, contact information for participants was revealed. Emails to the six participants
(two low, two moderate, and two high) resulted in scheduling semi-structured interviews in order to further probe their CRTSE and investigate how they demonstrated these beliefs in general and also during the emergency online learning of 2020 (see Appendix H). One of the two low CRTSE participants was nonresponsive to repeated emails, so the online number generator randomly selected one participant from the remaining eight low CRTSE participants who had indicated a willingness to participate in interviews. Table 13 presents the Culturally Responsive Teaching Self-Efficacy (CRTSE) scores and strength indices for the six teachers who participated in the second phase of the study. Also included are participants’ Phase 1 descriptive data. Pseudonyms have replaced all participant names.

Table 13

<table>
<thead>
<tr>
<th>CRTSE Beliefs and Descriptive Characteristics of Phase 2 Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low CRTSE</td>
</tr>
<tr>
<td>Ms. Gulf</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>CRTSE Score</td>
</tr>
<tr>
<td>Strength Index</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Race/ethnicity*</td>
</tr>
<tr>
<td>Age range</td>
</tr>
<tr>
<td>Highest degree earned</td>
</tr>
<tr>
<td>Number of years teaching</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Content area taught in Fall 2020</td>
</tr>
<tr>
<td>School in Fall 2020</td>
</tr>
<tr>
<td>English as a first language</td>
</tr>
<tr>
<td>Fluent in a second language</td>
</tr>
</tbody>
</table>

Note. Race/Ethnicity question was open-ended. Data represent exact participant wording.

Phase 2 participants taught at three of the four target secondary schools (see Table 16) and included five females (83.3%) and one male (16.7%). All six participants had been teaching at least five years. Half (n=3) had been teaching for 5–14 years and the other half had been teaching for more than 15 years. The two low CRTSE participants (33.3%) were in the 55–64 age range; one moderate CRTSE (16.7%) was in the 45–54 age range; two participants (33.3%), one moderate CRTSE and one high CRTSE, were in the 35–44 age range; and one high CRTSE (16.7%) was in the 25–34 age range. Five participants (83.3%) labeled themselves “White” or “Caucasian”; one participant, a low CRTSE, labeled herself “African American.” All six participants spoke English as their native language, and only one participant (16.7%) was fluent in another language.
**Semi-Structured Qualitative Interviews**

All six interviews were conducted via online video-conferencing platforms between April 15 and May 5, 2021. Google Meet was used for five of the interviews, and Zoom was used for one interview because the participant was unable to get the video working from home on Google Meet. Each interview followed a protocol that included four interview questions about their perceptions of culturally responsive teaching, connecting home and school culture, parent communication, and accessing students’ prior knowledge, plus questions about their greatest success and challenge during the emergency online learning of Fall 2020 (see Table 14).

**Table 14**

*Interview Questions and Study Constructs*

<table>
<thead>
<tr>
<th>Interview Question</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interview Question 1:</strong></td>
<td>CRT Definition</td>
</tr>
<tr>
<td>1a. Based on your experiences, how would you define culturally responsive teaching?</td>
<td></td>
</tr>
<tr>
<td>1b. In general, how often do you implement culturally responsive teaching as you have defined it?</td>
<td></td>
</tr>
<tr>
<td>1c. During the online teaching of Fall 2020, did your implementation of culturally responsive teaching change?</td>
<td></td>
</tr>
<tr>
<td><strong>Interview Question 2:</strong></td>
<td>Funds of Knowledge</td>
</tr>
<tr>
<td>2a. In general, do you think knowing the differences between students’ home culture and school culture can improve achievement?</td>
<td>Cultural Tools</td>
</tr>
<tr>
<td>2b. In general, are you comfortable with obtaining information about your students’ home life?</td>
<td>Social Justice</td>
</tr>
<tr>
<td>2c. During the online teaching of Fall 2020, did you try to identify ways the school culture is different from your students’ home culture? For example, are the norms, values, or practices different?</td>
<td></td>
</tr>
</tbody>
</table>
2d. During the online teaching of Fall 2020, did you implement strategies to minimize the effects of the difference between your students’ home culture and the school culture?

**Interview Question 3:**
3a. During the online teaching of Fall 2020, did you communicate with parents of diverse students?
3b. In general, do you believe that conveying the message that parents are an important part of the classroom would increase parent participation? Why or why not?

**Interview Question 4:**
4a. During the online teaching of Fall 2020, did you determine students’ prior knowledge?
4b. In general, do you believe that differentiation of instruction is important? Why or why not?

**Interview Question 5:**
5a. During the online teaching of Fall 2020, what was your greatest success in teaching diverse students?
5b. During the online teaching of Fall 2020, what was your greatest challenge in teaching diverse students?

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**Qualitative Analysis**

Phase 2 addressed Research Question 2 by further exploring participants’ culturally responsive teaching self-efficacy (CRTSE) practices in semi-structured qualitative interviews with six teachers: two teachers each with low CRTSE, moderate CRTSE, and high CRTSE. Discussion of Phase 2 findings will begin with descriptions of participants, featuring their definitions of Culturally Responsive Teaching (CRT). This will be followed by discussions of each of the four sociocultural elements of CRT that in large part formed the theoretical framework of the study: funds of knowledge, cultural tools, learning context, and social justice.
Definitions of Culturally Responsive Teaching (CRT). The six teachers had varying definitions of Culturally Responsive Teaching (CRT) and what it looked like in practice. To begin analysis of this interview question, a word-cloud generator (https://www.jasondavies.com/wordcloud/) presented a visual representation of all words from the transcript excerpts labeled “CRT Definition” (see Figure 9).

Figure 9

*CRT Definition Word Cloud*

Depaolo and Wilkinson (2014) found that word clouds are useful in identifying common themes in large amounts of data, especially when used in preliminary screening. The largest words in the word cloud in Figure 9 signify the most widely used words in the interviews, primarily: “different,” “know,” “culture,” “cultures,” “students,” and “America.” The words “Im” and “dont,” which also appear large, reflect the lack of
punctuation features available in the word-cloud generator. The largest words overview the content of participants discussion of the definition of CRT.

**Participants with Low CRTSE.** The present study’s Low CRTSE range was 1640–2459 CRTSE score and 40–59 strength index. Both Phase 2 participants with Low CRTSE, however, scored near the low end of that range. The two teachers had other qualities in common, as well. They both taught at Central High School in Fall 2020; were in the 55-64 age range; had been teaching more than 15 years; and had earned a master’s degree.

A science teacher, Ms. Gulf scored 1648 on the CRTSE Scale with a strength index of 42.26. She expressed some hesitation before saying that culturally responsive teaching (CRT) is about “being aware of what I'm used to or what I say, that it can be interpreted a different way by [students]. I don't know. I just try to be aware.” She said that she always has many English learners every semester, reflecting her association of CRT practices only with students whose linguistic and cultural backgrounds originated outside of the U.S. When asked how her implementation of CRT changed in Fall 2020, she tried to remember how many English learners she had in her classes that semester but did not refer to any specific teaching materials or practices

Ms. Kent taught English, and had a CRTSE score of 1678 and a strength index of 52.44. She said that CRT is “where you would include multiple cultures,” and then followed this with an in-depth discussion of the Native American literature her eleventh grade English classes read and discuss. When asked how often she implements CRT in her classes, Ms. Kent said, “I'm not getting that many ESL students these days,“
contrasting this with a ninth-grade English class she had several years ago that “looked like the United Nations.”

Both Ms. Gulf and Ms. Kent had difficulty defining culturally responsive teaching (CRT). Ms. Gulf displayed her difficulty defining CRT with hesitancy, which took the form of pausing, restating, rewording, and getting distracted with other subjects. Ms. Kent displayed her difficulty defining CRT with garrulity. Both teachers had an understanding that CRT relates to different cultures in the classroom because they both mentioned English learners and Ms. Kent discussed Native American history and literature. Despite a lack of clarity on the definition of CRT, further exploration of their teaching experiences revealed that many of their practices in Fall 2020 and in general were aligned with CRT.

**Participants with Moderate CRTSE.** The present study’s Moderate CRTSE range was 2460–3279 CRTSE score and 60–79 strength index. Both participants in this range taught history/social studies.

Mr. Gee, a social studies teacher at Grand Middle School, scored 2835 on the CRTSE Scale with a 69.15 strength index. He was in the 45–54 age range, had been teaching for more than 15 years, and his highest degree earned was a bachelor’s degree. He defined CRT as “taking the information that is needed to be taught, and then [trying] to adhere it to the different cultures” in the classroom. He described CRT from a “history point of view” as attempting to “give all sides of the story,” and said that CRT is easier to manage in history classes than in other subjects. He gave an example of a lesson on the Columbian Exchange that opened students’ eyes to some common misconceptions about
the origin of many commodities that also connected with some English learners’ native countries.

Ms. Hanes taught history at Central High School and had a CRTSE score of 3073 with a strength index of 78.79. She was in the 35–44 age range, had been teaching for 5–9 years, and had earned a master’s degree. She said that CRT is “working to figure out what culture the children are.” She discussed using students’ native languages when possible, allowing them to use their native languages, and using Google Translate to scaffold instruction. She said that she tries to implement CRT in every lesson when she has English learners, but otherwise, “it's basically just talking about culture and food, lots of food.”

Both Mr. Gee and Ms. Hanes have had prior experiences that may have increased their CRT. Mr. Gee said he worked as a school-based social worker for 11 years in New York before moving south, which enabled him to see the importance of school–home connections to student success. Ms. Hanes’ cultural experiences stem from within her family. One of her grandmothers was half-Hawaiian and half-Portuguese, and her mother grew up in Germany after her mother (Ms. Hanes’ grandmother) married a man in the U.S. military. She said that it was normal to hear multiple languages in a single conversation at family gatherings: “My grandmother will yell at me in German and then in Hawaiian, and I’m going, ‘Slow down. Pick a language, please.’”

**Participants with High CRTSE.** The present study’s High CRTSE range was 3280–4100 CRTSE score and 80–100 strength index. The only quality the two Phase 3 participants with high CRTSE had in common was teaching at the high school level in Fall 2020.
Ms. Owen, a career/technical teacher at Lincoln High School, had a 3385 CRTSE score with a strength index of 82.56. She was in the 25–34 age range, had been teaching 5–9 years, and had earned a master’s degree. Ms. Owen defined CRT as being “open-minded and [realizing] that not everybody comes from the same culture.” She said that teachers have a responsibility to be aware and accepting of different cultures: “What we do here and what our culture is may not be the same as a student coming to us from another country, so we need to be open-minded.”

Ms. Neal, an ESL teacher at Central High School, scored 3705 on the CRTSE scale with a strength index of 90.37. She was in the 35–44 age range, had been teaching 10–14 years, and her highest degree was a bachelor’s degree. Ms. Neal defined CRT as “being able to react to different cultures and backgrounds that students come from and take those into account when you are providing instruction for them.” She said that she implements CRT daily because all of her students are English learners, noting that she must “constantly take into consideration the backgrounds that [her students] come from, their different cultures.”

Ms. Owen and Ms. Neal have both had prior experiences that may have increased their self-efficacy of cultural responsiveness. Ms. Owen said that she was raised by her parents to respect other people and their culture and beliefs and went on to major in Hospitality and Tourism Management in college and later work at Walt Disney World, where she learned to “use hand symbols that are not offensive in any culture to direct people throughout the parks and resort areas.” Ms. Neal has traveled the world with her husband, who is retired from the U.S. military, and the couple lived in another country for a while.
Participants’ Culturally Responsive Teaching Practices. In the remainder of this chapter, analysis will focus on the teaching practices of qualitative Phase 2 participants that are aligned with culturally responsive teaching (CRT).

Funds of Knowledge. Findings in this section will be organized by three primary features of Moll et al.’s (1992) term “funds of knowledge”: the rejection of deficit mindsets, leveraging cultural assets, and minimizing the cultural divide between classroom and home cultures.

The rejection of deficit mindsets that is a prominent feature of CRT practices (Gay, 2018; Ladson-Billings, 1995) was present in all participant interviews. One practice they all referred to that illustrated this was the use of pre-assessments to gauge students’ prior learning and plan for differentiated instruction, although their use of the practice varied. Because classes were virtual, teachers utilized digital tools in assessing students’ prior learning.

Ms. Gulf said the pretest for her Fall 2020 Earth Science classes was a digital version of the released state standards assessment in Performance Matters (https://www.powerschool.com/solutions/performance-matters/). She said that the number of students who showed proficiency in certain standards would lead her planning decisions, so that she spent less time on scientific investigations, that students have “had since second grade,,” and more time on other topics like “space astronomy” that students had lower scores on. Ms. Kent used IXL language arts diagnostic tests (https://www.ixl.com/) for her English classes, and she liked being able to see results for not only the overall class but also for individual students.
Moderate CRTSE teachers, Mr. Gee and Ms. Hanes, both used Performance Matters pretests, but neither appreciated the process in the emergency online learning of Fall 2020. Mr. Gee said that it was difficult to gauge students’ prior knowledge using the pretests because many did not complete them and others took days to complete them. In “normal” face-to-face classes, he generally used information from pretests to plan how much time to spend on certain topics in his curriculum, but in the online setting, not only was this difficult, but his other methods of gauging student readiness—facial expressions and “nervous hands or the twitching of the feet”—also broke down because “when they’re just a little tiny square, you don’t pick up so much.” Ms. Hanes said that her test data in Performance Matters was not broken down specifically enough for her to be able to use it strategically for differentiation. She said that administering the virtual pretest proved to be very different from regular face-to-face classes, where she was able to monitor students as they took the test. “I know some of them went and googled” or got help from someone, she said, because students who aced the pretest displayed no understanding of the information when discussing it in later lessons.

Many participants referred to practices aligned with leveraging students’ cultural assets (Ladson-Billings, 1995; Maitra, 2017; McIntyre, 2011; Wearmouth, 2017). For example, Ms. Kent (low CRTSE) talked about leveraging the cultural assets of one of her students, a Muslim English learner from Jordan, in her American literature class. In a class study of the King James Bible, she encouraged this student to connect his prior religious studies with the text they read. “When we got to the Fall of Adam and Eve,” she recalled, “I just remember him smiling and going, ‘I know this story,’ and he seemed a little bit more interested.”
Ms. Neal (high CRTSE) said that she had discussions with her high-school ESL students about how school worked in their native countries that she was then able to leverage when teaching them about how school works here in the U.S.

Many participants described practices that minimized the divide between the classroom and students’ home cultures (Au & Jordan, 1981; Gay, 2018; Labov, 1969; Ladson-Billings, 1995; Vogt, Jordan, & Tharp, 1987). Ms. Gulf (low CRTSE) discussed this kind of practice in relation to a continual clash between her students’ beliefs and her high-school science subject matter. When they start learning about Charles Darwin and his work in biological evolution, she said a lot of her students have had problems with it. She said she navigates that cultural divide by telling her students, “This is what the book says. I know what I think, and I know what the book is telling us. We’re going to test with the book, but keep your own beliefs.”

Grand Middle School social studies teacher Mr. Gee (moderate CRTSE) said that discovering how his middle-school history students’ families view school—what he called their “educational culture”—helped him to minimize the home–school cultural divide. He said that to some families education is the “must-be-of-all,” and other families are less invested and simply tell students, “We’ve got to do this, so just do it.” Mr. Gee’s previous experience working as a school-based social worker, a job he described as the “ideal dream” because it enabled communication between school and home, likely enlightened this cultural perspective he has as a teacher. Some parents, he said, say that their children will not listen to anything they tell them. “In my head,” he said, “I’m like, ‘What do you mean, you can’t tell your child what to do? You’re the parent.’” Despite his personal judgments, he said this knowledge has enabled him to work with students in
more positive and productive ways. He worked to build relationships with parents, who
then acted as cultural assets by communicating specific home issues that he could use in
his interactions with students, so they could work together toward academic success.

In order to minimize the home–school divide for many of her high school ESL
students, Ms. Neal (high CRTSE) had to provide instruction on how to connect to the
internet, how to log into Canvas classes, and how to join Google Meet, among many
other processes. One student who had recently arrived from a remote area in Honduras
had never used a computer before. Throughout Fall 2020, this student struggled with the
basics of computer and internet usage, such as maximizing and minimizing her screen.

*Cultural Tools.* Cultural tools take the form of mediators: objects, prior learning
experiences, language, and teachers themselves (Maitra, 2017; McIntyre, 2011;
Wearmouth, 2017). Cultural and language scaffolding—also called verve or code-
switching—can also be a cultural tool (Charity Hudley & Mallinson, 2014; Nieto, 2010;

Several Phase 2 participants mentioned using some sort of digital tool to
communicate with parents. Because the learning context during Fall 2020 was extended
to students’ homes with emergency online learning, communicating with students via
their parents was often a necessity. In this way, teachers used digital mediating tools to
communicate with parents, and then enabled parents to act as mediators of their students’
learning experiences.

Ms. Neal (high CRTSE) and Ms. Hanes (moderate CRTSE) said that they used
the TalkingPoints app (https://talkingpts.org) to communicate with parents with
languages other than English. Ms. Neal, a high-school ESL teacher, said she used
TalkingPoints to communicate with her students’ parents and with students that she monitored but did not teach at the time. In Fall 2020, Ms. Neal was communicating sometimes five times a day with her students and parents using TalkingPoints and text messaging in order to ensure students went to their classes on Google Meet and completed their assignments. Her communication also regularly involved communicating with the approximately 40 teachers of students in Ms. Neal’s classes, as well as about 25 additional teachers of students on her monitoring list but not enrolled in her classes that semester. In these ways, she used mediating tools to communicate with parents and other teachers, while acting as a mediator of learning experiences between students and their other teachers and also enabling parents to act as mediators between students and her and their other teachers.

Mediating learning experiences with technology extended into the Remind.com messages that Ms. Hanes sent her high-school history students and their parents, sometimes even mediating learning experiences for parents as a byproduct. She said that one parent said that these messages helped her learn to read English: “She said, ‘I understand it when it’s spoken, but reading is a mystery.’ And she said seeing my little messages on Remind was kind of helpful because she would be like, ‘Okay, I see this is World History. I’ve now learned what World History looks like.’” Ms. Hanes’ students’ parents then not only acted as mediators of her students’ learning experiences but also as recipients of Ms. Hanes’ and the digital tool’s mediation.

Teachers can also act as mediators of their student’s learning experiences. Through the sociocultural perspective (Vygotsky, 1978) of the present study, a teacher has “agency” as the “prime mediator” of students (Wearmouth, 2017). Ms. Hanes
described providing this agency by allowing for multiple modes of learning in her high school history classes. “Not everybody learns the same way,” she said. Her knowledge of herself as a multisensory learner who requires seeing, hearing, and writing information in order to learn has enabled her to provide multiple pathways to learning for her students, as well, especially her English learners: “Some of my students that are from different countries, if you can show them while you're trying to explain it, [they say,] ‘Oh, I got that, I understand.’” Mr. Gee said he also considered students’ different learning styles when he planned lessons. “You have to mix it up,” he said. “I tried to do audio. I tried to do hands on. I tried to do visual. You got to mix it up for the kids.”

Teachers can use students’ cultures and cultural experiences to propel their learning by using cultural scaffolding (Chenowith, 2014; Gay, 2002). One method of cultural scaffolding that many participants discussed is using students’ native or home languages (L1) in instruction and assessment. Sometimes this scaffolding in the classroom can look like allowing students to code-switch, or use their L1 interchangeably with English, and other times, this scaffolding can look like the teacher translating/interpreting instructional or assessment materials (Charity Hudley & Mallinson, 2014; Nieto, 2010; Stewart & Hansen-Thomas, 2016).

Two participants mentioned leveraging English learners’(ELs’) home languages. Ms. Hanes (moderate CRTSE) said that she saw the most engagement from her ELs in Fall 2020 when she encouraged them to use their native Spanish as they participated in the online discussion boards in Canvas. She also tried to use the little Spanish that she knew, occasionally lapsing into her grandmother’s Portuguese, and held up Google Translate on her phone during Google Meet sessions in an attempt to communicate with
her ELs in their L1. Ms. Kent (low CRTSE) encouraged her students to make their poetry recitations in their native Spanish, even offering additional points to them for “converting” the text into Spanish. She enlisted one of the school’s Spanish teachers to come to her class on the recitation day to help her evaluate her English learners’ performances.

Another method of cultural scaffolding relates to non-linguistic cultural experiences. Ms. Kent described using what could be described as cultural scaffolding when she encouraged her student from Jordan to use her room to pray at lunchtime on religious holidays. She said that she had hall duty at the time, so he had the room to himself. Her allowing him to practice his religious customs at school enabled him to feel more comfortable there and with her. Afterward, he was more open in talking to her about his religion and other cultural customs, which enabled her to better mediate his learning, leverage his cultural assets, and draw from his funds of knowledge.

Broadened Learning Context. From the sociocultural perspective that grounds the present study, culture is a “context in which learning takes place” (Wearmouth, 2017, p. 2). The learning context is broadened from the traditional view of learning spaces from solely the classroom to every space outside of the learner’s head. Community, family, and school are seen as sociocultural variables that impact student success (McIntyre, 2011). During Fall 2020, the concept of “classroom” itself was also broadened because students were learning online in virtual spaces. In Riverside schools, teachers used Canvas classroom environments to post assignments and assessments with daily synchronous Google Meet sessions.
All six teachers discussed the importance of parents and family connections to student success, although one had reservations about gathering information. Although Ms. Kent (low CRTSE) said she believes that knowledge of students’ family lives can be important to students’ success, she does not feel comfortable asking students about their lives outside her classroom: “If they want to tell me, fine, I'll listen, but I [am] not one of the teachers that asks, you know, ‘What do you do at home?’ because I just think that's nosy.” Despite this, she was open to learning about her students’ home lives if they were willing to share.

Ms. Kent said that she did not reach out to parents, even those of her English learners. She instead communicated with the ESL teacher, Ms. Neal, and allowed her to mediate situations. Ms. Kent described a situation in which the two teachers planned an “ambush” for a senior EL who had not been doing his work in multiple classes. Ms. Neal joined the class Google Meet one day and asked to speak to the student, and Ms. Kent planned to set up a breakout room in Google Meet for them. However, the student did not respond when they called his name, although his name was showing as present. Ms. Neal had been unable to get the student or his mother to answer the telephone, so the following day, she went to the student’s house. She knocked and knocked, but no one answered the door, so she waited until the student’s mother came home. Finally, Ms. Neal was able to connect the student’s mother with the school and work toward an agreement between him, Ms. Kent, and the school principal concerning his pulling his grades up to be able to graduate on time at the end of the school year.

Ms. Neal (high CRTSE) said that her other high-school ESL students’ parents were just as concerned as Ms. Kent’s student’s mother when she talked with them
frequently in Fall 2020. These family connections helped her mediate students’ learning experiences because their parents, also as mediators, checked behind students and held them accountable more. Although it may have taken time, repeated attempts, and even home visits to make these connections, Ms. Neal said she did not have even one instance “where the parent was not concerned or wasn't supportive.”

Mr. Gee (moderate CRTSE) discussed talking to parents via his middle-school history students’ older siblings, who were bilingual and able to interpret the conversations. He also described reaching out to some parents before the end of the grading period to let them know their children had not completed a lot of assignments, so that they were “failing dismally at that point.” Mr. Gee told parents the students could have a week to get the work completed and submitted, and re-opened the assignments in Canvas. He said that the school–home connections he forged led to at least two students passing that quarter and improved student motivation afterward.

Ms. Gulf (low CRTSE) noted that teachers can have little impact on student success if parents are not involved. She said “it has a lot to do with who's at home and who's checking. . . I mean, they can professionally develop us all they want to. It's got to start at home.”

The emergency online learning of Fall 2020 took place in a virtual space that was new to many teachers and learners. This enabled even teachers who had not been previously familiar with the idea of a “broadened learning context” to understand the concept.

Ms. Owen (high CRTSE) said that she was able to learn a lot about the sociocultural variables impacting her high-school CTE students during the virtual
learning of Fall 2020. She described being able to hear “a ton of kids screaming in the background” when some students turned on their microphones in the Google Meet sessions. One of her students always had his “baby brother” in his arms, so she was able to see that he was likely the main person that took care of this young sibling. Ms. Neal stressed the importance of setting classroom norms for virtual learning, such as “Make sure the camera is only on you” and “Make sure your microphone is off, so that we don’t hear anything in the background.” Alternately she said seeing and hearing the context of students’ home lives should be viewed as conversations, as opportunities to deepen relationships. Although she does not want to make students feel embarrassed about having to be in those situations, sometimes “you just kind of talk toward it, like, ‘Oh, my gosh, your baby brother's so adorable’ or ‘Oh, wow, how many,’ you know, ‘brothers and sisters do you have in the background?’” In these ways, the broadened learning context enabled her to build deeper relationships with students that, in turn, enabled her to mediate learning for them.

Many participants mentioned issues with the virtual learning of Fall 2020. Mr. Gee, Grand Middle School social studies teacher, described one of his English learners who had to care for his little brother all day long while their parents worked. He said the student’s little brother was “hollering and jumping around and pushing buttons on his computer and everything,” so that the older brother's attempts to participate and complete his assignments proved virtually impossible. In this case, the broadened learning context was a detriment to the student’s academic achievement that Mr. Gee was unable to mediate despite his good intentions. Attempts to minimize the disconnect between school expectation and the home environment were futile because the parents communicated
that their need to work and provide sustenance for their family outweighed his student’s need to be successful in his classes. Mr. Gee also described other chaotic home situations in which the parents were sleeping or otherwise engaged, rather than ensuring their students had what he considered to be a suitable learning environment in the home.

**Social Justice.** Phase 2 participants discussed many CRT practices that could be defined as social justice, specifically in the powerful areas of “knowing students well” (Nieto, 2010) and “making a difference and addressing inequities” (Harmon, 2012, p. 14).

Ms. Owen (high CRTSE) described several instances of adjusting expectations based on student circumstances. In one case, she discovered that one of her high-school career–technical students was in foster care. The student had to help out with younger foster kids in the house and work from right after school until late at night many days. In other cases, she learned from Google Meet sessions that some students were the primary caretakers for their younger siblings. Having this information enabled her to work with the students differently. She adjusted her homework expectations and made a point of helping these students manage their time in class better, so that they would not have homework that could not possibly get done at home.

Ms. Hanes (moderate CRTSE) discovered that one of her high-school history students in Fall 2020, an English learner, was the sole caretaker for her elderly disabled grandmother while her mother and father were working all day every day. With this information, Ms. Hanes was able to adjust her student’s workload, so that she was focusing on the assignments best aligned with her learning needs (“heavy on
vocabulary”). Afterward the student’s average went from “F” to “C,” and she passed the state standardized test for the class, earning a verified credit in the content area.

Through Google Meet sessions, Ms. Neal (high CRTSE) found out that one of her ESL students was the sole daytime caretaker for her stepfather who had fallen off a roof and was bedridden. The student was not answering when Ms. Neal called on her, and finally explained that she was helping her stepfather go to the bathroom. After this discovery, in addition to adjusting her own expectations, Ms. Neal reached out to the students’ other teachers and explained the situation. She said when they understood, they were willing to modify assignments “with a little grace in there.” Ms. Neal said this “grace” likely looked like fewer questions on an assignment, additional one-on-one time, or working with the student during lunch, after school, or otherwise outside the normal class time. Not only did Ms. Neal know and affirm her student’s situations, but she worked to address the inequities hindering the student’s success at school, thereby making a difference. According to Ms. Neal, this is how teachers can “help the whole child.”

Mr. Gee (moderate CRTSE) shared his idea for addressing inequities in parent understanding of how to support their children with school. He suggested that schools need to hold a parent education day when parents can come to the school to learn about how to access student grades and student assignments, adding “You can't expect a parent to pick it up like that, if it's not part of their learning culture.”
Final Integration: Quantitative and Qualitative Findings

The present study’s explanatory-sequential mixed-methods research design did not comprise a quantitative study followed by a separate qualitative study, but an integration of the two methods at three points of the study:

1. at the beginning, when the two research questions (one quantitative and the other qualitative) were designed;
2. in the middle, when the quantitative findings informed selection of the qualitative phase participants; and
3. at the end, when quantitative and qualitative findings were triangulated along with analytic memos which were kept throughout the entire process.

At this final integration point, it became important to analyze how well the survey participants represented the larger population. Demographic data for the population of the present study—i.e., all of the secondary teachers in these four schools in this school district—was not available. However, as shown in Table 15, the most recent data from the National Center for Education Statistics (2021a) enabled a comparison between all secondary teachers in the U.S. in the 2017–2018 school year \( n=1,766,000 \) and the present study’s Phase 1 participants \( n=39 \) and Phase 2 participants \( n=6 \). This comparison indicates that the present study’s participants are fairly representative of this much wider population.
Table 15

Descriptive Statistics for the Present Study Participants and All U.S. Secondary Teachers

<table>
<thead>
<tr>
<th>Teacher Characteristics</th>
<th>All U.S. Secondary Teachers ((n=1,766,000))</th>
<th>Phase 1 Participants ((n=39))</th>
<th>Phase 2 Participants ((n=6))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>64.2</td>
<td>64.1</td>
<td>83.3</td>
</tr>
<tr>
<td>Male</td>
<td>35.8</td>
<td>35.9</td>
<td>16.7</td>
</tr>
<tr>
<td>Race/ethnicity</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>79.8</td>
<td>61.6</td>
<td>83.3</td>
</tr>
<tr>
<td>White</td>
<td>6.8</td>
<td>20.5</td>
<td>16.7</td>
</tr>
<tr>
<td>2+ Races</td>
<td>2.0</td>
<td>5.2</td>
<td>–</td>
</tr>
<tr>
<td>Age*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 30</td>
<td>14.2</td>
<td>~17.9</td>
<td>~16.7</td>
</tr>
<tr>
<td>30+</td>
<td>85.8</td>
<td>~82.1</td>
<td>~83.3</td>
</tr>
<tr>
<td>Highest degree earned</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Less than master’s degree</td>
<td>39.4</td>
<td>33.4</td>
<td>33.4</td>
</tr>
<tr>
<td>Master’s degree or higher</td>
<td>60.6</td>
<td>66.6</td>
<td>66.6</td>
</tr>
<tr>
<td>Years of experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–9</td>
<td>36.0</td>
<td>41.1</td>
<td>33.4</td>
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<tr>
<td>10+</td>
<td>64.1</td>
<td>59.0</td>
<td>66.6</td>
</tr>
</tbody>
</table>

*Note. Age ranges for the two surveys differed. Percentages are approximate.*
CHAPTER 5

DISCUSSION

The present study aimed to address a gap in the research on culturally responsive teaching self-efficacy (CRTSE) by investigating the CRTSE of secondary teachers of vulnerable students—i.e., English learners and students with disabilities—using a mixed-methods design that enabled a more thorough examination of “the extent to which teachers feel competent specifically in their ability to implement CRT practices” (Cruz et al., 2019, p. 3). In addition, previous studies on CRTSE have investigated the construct within many contexts; however, none have done so within the context of emergency online learning during a global pandemic.

The changes to teaching and learning brought about by the COVID-19 pandemic in 2020 have been possibly the most extreme, rapid, and widespread ever (Berry & Kitchen, 2020; Fabionar, 2020; Marquez Aponte, 2020; Schultz & DeMers, 2020; Sparks, 2020). The emergency online learning that followed was largely negative for students and teachers alike (Schultz & DeMers, 2020) with yet unknown potential consequences on children’s mental, emotional, and social growth (Fantini et al., 2020), and students including English learners and students with disabilities who were already vulnerable to the existing systemic inequity of the U.S. educational system were even further disadvantaged (Kaschub, 2020; Kaden, 2020).

This extreme situation provided a ripe context for the investigation of culturally responsive teaching self-efficacy with an aim of drawing valuable insight that might inform future practice and more in the less-extreme future (Chen, 2016; Kreiner et al., 2009; Murtazashvili, 2019). The present study investigated the culturally responsive
teaching self-efficacy of teachers during the emergency online learning of Fall 2020 from a dual sociocultural and self-efficacy theoretical perspective. It used an explanatory-sequential mixed-methods design featuring an initial quantitative Phase 1 survey that informed the subsequent qualitative Phase 2 semi-structured interviews that sought to explain the Phase 1 results. Two research questions formed the foundation of the study:

1. What are secondary teachers’ perceptions of their ability to provide culturally responsive teaching during emergency online learning in the Fall 2020 semester?
2. How did secondary teachers demonstrate their self-efficacy for providing culturally responsive teaching during emergency online learning in the Fall 2020 semester?

The remainder of this chapter includes an interpretation of the present study’s results, including the relationship between the study’s results and previous relevant literature; the limitations of the study; researcher positioning and bias reduction; and implications for future research and practice.

**Interpretation of Results**

In addition to providing an overall understanding of the CRTSE of secondary teachers in this small urban mid-Atlantic school district, the data indicates connections between CRTSE and teacher practices with vulnerable students during the emergency remote learning of Fall 2020. All participants in the study reported teaching English learners and/or students with disabilities in Fall 2020.

The findings of the study were twofold. The quantitative phase provided information regarding the nature of secondary teachers’ CRTSE beliefs during the
study’s bounded time period (the emergency online learning of the Fall 2020 semester), and the qualitative phase revealed the related CRT experiences secondary teachers had during the same time boundary. Statistics run were solely descriptive, and descriptive data was not available for the study population (i.e., all the secondary teachers in this district during the study’s bounded time frame). However, comparison of data for participants in both Phase 1 and Phase 2 of the present study with data for all secondary teachers in 2017-2018 revealed that this sample may represent to a degree the much wider teaching population (see Table 10).

The 39 participants in Phase 1 averaged a total CRTSE score of 2416 with a range of 515–3705, which is at the high end of the present study’s modified low CRTSE range of 1640–2459. A low average CRTSE score indicates that, on average, the 39 secondary teachers had a low level of confidence in their ability to provide culturally responsive teaching to their students during the emergency online learning of Fall 2020. Strength indices ranged from 12.88–96.75 with a mean of 62.06, which is at the low end of moderate CRTSE. (In comparison, the qualitative Phase 2 participants with low CRTSE, Ms. Gulf and Ms. Kent, had CRTSE scores of 1648 and 1678 and strength indices of 42.26 and 52.44, respectively.) Overall, survey respondents were extremely diverse in their answers, with spans of 0–100 on nearly half of the items, and many participants skipped questions altogether. It was unclear whether the diversity in survey responses was linked with lower CRTSE.

The remainder of this interpretation of study results will be separated into prevalent themes suggested by the qualitative data.
Teachers Have Greater Confidence with General Teaching Practices

According to Siwatu (2007), the items on the CRTSE scale related to general teaching practices usually prove easier for teachers than items concerned with “culturally sensitive and responsive teaching practices” (p. 1089). This was reflected in the present study’s participants’ CRTSE scale ratings. All but two of the 20 items referring to English learners, culture, and diversity fell in the lower half of average means. In line with Siwatu et al.’s (2009) findings, the top three items for the present study’s participants were general teaching tasks that may come naturally:

1. Help students feel like important members of the classroom \( (M=78.59) \)
2. Build a sense of trust in my students \( (M=77.59) \)
3. Develop a personal relationship with my students \( (M=74.82) \)

That these secondary teachers do not feel confident about performing the more difficult, more cultural-specific teaching tasks is troubling because of the high correlation between strong self-efficacy beliefs and positive attributes such as persistence when challenged, resilience with setbacks, openness to new ideas, greater willingness to meet students’ needs, and greater enthusiasm and commitment to teaching (Tschannen-Moran & Johnson, 2011). Although self-efficacy beliefs do not reflect people’s actual competence level but their perception of competence, Bandura (1997) found that people with stronger levels of perceived self-efficacy set higher goals to which they were more firmly committed, thereby increasing their performance in that area. Other researchers after him have found that this is true of teachers, as well; teachers with a strong sense of self-efficacy display behaviors that signify stronger teaching skills (Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk Hoy, 2001). In other words, it is likely that
increased efficacy of providing CRT would be linked with increased occurrences of teaching practices aligned with CRT.

**Cultural Training and Experiences Lead to Higher CRTSE**

The Phase 2 interview participant with the highest CRTSE score (3708 of a possible 4100), Ms. Neal, was an ESL teacher working with high school English learners in Fall 2020. Although she alluded to issues with technology during this period, the data indicated that her self-efficacy of culturally responsive teaching (CRT) may have been strong during the uncertainty of the pandemic in part because she was already highly competent in providing CRT.

ESL teachers like Ms. Neal are certified by the state to provide language instruction and other support to students whose native languages are not English (Stewart & Hansen-Thomas, 2016). Through their training, they learn techniques that enable them to “shelter” diverse students while they are learning grade-level content, providing them with comprehensible input and strategic language instruction (Echevarria et al., 2013). These strategies and practices are aligned with culturally responsive teaching (CRT) by incorporating the concepts of funds of knowledge, cultural tools, a broadened learning context, and social justice. With this in mind, it is not surprising that the sole ESL teacher participant had the highest self-efficacy of culturally responsive teaching or that she had the strongest beliefs in her abilities.

Other interviewees with higher levels of CRTSE mentioned experiences that had an impact on their confidence in providing CRT. Ms. Owen, the high CRTSE career/technical teacher at Lincoln High School, specifically discussed the way her undergraduate training as a Hospitality and Tourism Management major and later job
training at Walt Disney World built on the respect for other people’s cultures and beliefs her parents raised her to have. Mr. Gee, the moderate CRTSE social studies teacher at Grand Middle School, experienced on-the-job cultural training as a school-based social worker in his previous New York State district. Ms. Hanes, the moderate CRTSE social studies teacher at Central High School, grew up in a multicultural family with a grandmother who was half-Hawaiian, half-Portuguese, and also spoke German from years of living in Germany with her husband on a U.S. military base. The ESL teacher Ms. Neal herself traveled the world and lived in other countries with her husband, who is now retired from the military.

This concept is aligned with one of Nieto’s (2010) essential realities for effectively reaching and teaching diverse students, that only a multicultural person—i.e., a person with “firsthand experience with diversity” (p. 272) through learning a new language or experiencing a new culture, for example—is able to affirm diversity. These teachers may have had higher CRTSE because they were more “multicultural” people themselves.

*Ability to Define CRT May Be Linked to Higher CRTSE*

The interview participant with the lowest CRTSE score (1678 of a possible 4100), the high-school science teacher Ms. Gulf, was very hesitant in her interview. She repeatedly asked for questions to be repeated, at times slowly repeating the question herself to parse its meaning. She also seemed to have difficulty defining culturally responsive teaching, often conflating CRT with simply teaching English learners. Despite this hesitation and confusion on the topic, further exploration of her teaching practices in general and during Fall 2020 proved that Ms. Gulf indeed used many teaching practices
aligned with CRT. In fact, her extremely low CRTSE could be at least partially due to her inability to delineate or articulate the concept of culturally responsive teaching.

Furthermore, her self-efficacy of CRT could increase dramatically with professional development in this area, particularly when using a differentiated approach, itself infused with CRT so as to draw on Ms. Gulf’s funds of knowledge, for example. Given Bandura’s (1997) and others’ (Gibson & Dembo, 1984; Tschannen-Moran & Woolfolk Hoy, 2001) work, it seems likely that a stronger sense of self-efficacy could increase Ms. Gulf’s ability to provide culturally responsive teaching to her students.

All six interview participants illustrated the use of CRT practices. Participants’ CRTSE scores did seem to align more with their ability to articulate the definition of CRT and to describe their implementation of CRT. When interview questions directed their attention to specific actions (e.g., determining students’ prior knowledge or the difference between students’ home cultures and the school culture), even those with lower CRTSE scores were able to describe some experiences and practices that aligned with CRT.

**Culturally Responsive Teaching Is “Teaching the Whole Child”**

Ms. Neal, the Central High School ESL teacher with the highest overall CRTSE score, described her actions—which many might view as “above and beyond”—as teaching “the whole child.” As she kept in near-constant communication with her students and their parents and other teachers, Ms. Neal was forging and deepening relationships, becoming aware of issues that may be factors affecting academic achievement, and also using this knowledge and insight to work to level the playing field for her multilingual learners. By “knowing students well” (Nieto, 2010) and “making a
difference and addressing inequities” (Harmon, 2012, p. 14), Ms. Neal was illustrating social justice in action.

This concept of “teaching the whole child” was also clearly articulated by other participants. For example, Ms. Owen, the other high CRTSE teacher who taught career/technical studies at Lincoln High School, mentioned a number of experiences in which she had discovered students were in difficult situations and then worked to lessen the detrimental effects of the situations on their academic achievement. This took place in her own classes, and she was also instrumental in facilitating this mitigation with her students’ other teachers also.

“Teaching the whole child” is firmly aligned with CRT practices that stress students’ assets, or funds of knowledge; acknowledge a far broader than usual learning context; utilize whatever cultural tools are available, including languages, practices, ideas, objects, and people; and leverage knowledge of students in order to balance out systemic and other inequalities (social justice). These pervasive themes all lean toward the need for professional development in CRT. Since self-efficacy beliefs “can become self-fulfilling prophecies, validating either beliefs of capabilities or of incompetence” (Tschannen-Moran and Johnson, 2011, p. 751), teachers need explicit instruction and other cultural experiences to become more adept at providing culturally responsive teaching for their diverse students.

Limitations

One unavoidable limitation of the present study was that the secondary teachers among the present study’s population were all in the midst of a global pandemic. A growing body of research around the world indicates that the stress of teaching during the
COVID-19 pandemic affected teachers’ self-efficacy (Cho et al., 2021; Pressley & Ha, 2021). Teaching students under ordinary circumstances can be difficult. However, since 2020, teachers have had the added pressures of virtual teaching, hybrid teaching, mask mandates, quarantine, school shutdowns, vaccinations, and so much illness, death, and conflict around the world. Thus, not only could the results of the present study’s survey reflect this stress, but participation could have also been greatly affected. Adding completion of a lengthy survey could seem like way too much to add to an already overloaded schedule.

Other limitations include:

1. Both phases of the present study were self-reported. The researcher had to rely on participants to complete the 41-item surveys (plus demographic information and teaching experience questions) and to answer interview questions openly and honestly, explaining their own perceptions and practices.

2. The sample size was relatively small and decreased further with data cleaning due to missing values.

3. The purposive sampling procedure of the qualitative Phase 2 necessitated that some participants be removed from the pool whose CRTSE scores did not fall within the prescribed ranges for low, moderate, or high CRTSE. Although the present study’s adapted ranges from Siwatu’s (2011) “median split method” of identifying participants extended Siwatu’s range by more than 45% in order to further explore the range of efficacy experienced by participants, five respondents scored so low that they did not fall into the low CRTSE range.
4. The context-dependent nature of efficacy (Bandura, 1997) could be a possible limitation. Siwatu’s (2007) original CRTSE Survey statements were appended by adding “I was able to” at the beginning and “in Fall 2020” at the end in order to direct participants’ attention to the boundary of the present study. This could have affected the validity of the measure.

5. The amount of missing data in the quantitative Phase 1 proved a difficult factor. A total of 42 respondents providing consent completed the 41-item CRTSE Scale that comprised Part 2 of the CRTSE Survey. If all 42 participants had provided an answer for all 41 items, the total number of responses would have been 1,722. However, before data cleaning, there were 123 total missing values, which represented 7.1% of the total possible values \( n=1,722 \) for the 42 respondents. Of the 42, 20 respondents skipped at least one item on Part 2 of the survey. The situation was mitigated to some degree by removing three participants with more than 25% missing values, which reduced the total number of missing values from 123 (7.1%) to 75 (4.7%).

6. The 41-item CRTSE scale used in the present study was shown to be reliable, measuring .96 internal validity by Cronbach’s alpha (Siwatu, 2007). However, the internal validity and reliability of the study could have been compromised due to the possibility that participants did not accurately present their classroom practices and events during the interview phase.

**Researcher Positioning and Bias Reduction**

The researcher has lived in and worked for the targeted school district for many years, working with many participants as a colleague and as a parent of children in their
classes. This professional and personal closeness to the target population presented a risk of bias that was minimized to a great degree by the explanatory-sequential mixed-methods design of the present study.

Phase 1 involved sharing the survey link to all teachers at the four secondary schools, so that only those who chose to participate did. Although collection of participant names and schools was necessary, the researcher assured participants that their responses would remain confidential. Observation of the link between collected data and participant name was mitigated by assigning participants a number to use in data input and analysis. Revelation of the identities of participants occurred only after selection of the Phase 2 qualitative interview participants.

In addition, pseudonyms protected the identities of district, schools, and all participants. Although specific publicly available demographic and socioeconomic data have been used in order to provide a rich description of the study context, blinding as much identifying data as possible prior to publication protected the community. Participants in the quantitative Phase 1 completed the CRTSE scale freely and willingly. Participants in the qualitative Phase 2 were selected from those Phase 1 participants who indicated that they would be willing to participate in a follow-up interview. All aspects of planning, development, data collection, and data analysis involved cautious consideration to maximize security and validity.

Implications for Future Research

Implications for research include greater understanding of the importance of and the need for culturally responsive teaching and also teacher professional development in CRT. Specific further implications for future research include:
1. As explained in the limitations above, despite an adaptation that expanded Siwatu’s original method of identifying participants for their CRTSE level, five respondents still did not meet the minimum score for low CRTSE. Two of these respondents were also among the three respondents who had to be eliminated altogether because they skipped more than 25% of the questions in the CRTSE Survey. Further research in this area should explore outliers like these to discern whether or not missing values are correlated with low CRTSE.

2. The present study should be replicated without the time boundary of a specific semester.

3. The present study hints at a possible correlation between CRTSE and teacher age and teaching experience. This should be further investigated.

4. Current literature suggests a correlation between teacher use of culturally responsive teaching (CRT) and student achievement (Abdulrahim & Orosco, 2019; Aronson & Laughter, 2016; Cole et al., 2016; Gay, 2002, 2018; Nieto, 2010; Irvine, 1990; Jordan, 1985; King, 1991; Labov, 1969; Ladson-Billings, 1995; Wearmouth, 2017). Hammond (2015) proposed that CRT “has the power to close achievement gaps” (p. 3) between mainstream and non-mainstream students, arguing that many students struggle academically because they have not been given the opportunities to develop their cognitive abilities and that CRT implemented systematically can “stimulate the brain’s neuroplasticity so that it grows new brain cells that help students think in more sophisticated ways” (p. 15). Because the present study was focused on teacher efficacy, primarily due to COVID restrictions while the researcher was planning and implementing the
study, student achievement was not addressed. Future research should focus on teacher efficacy conjoined with student achievement.

Implications for Future Practice

The study provides insight into teaching practices that illustrate a need for building self-efficacy for culturally responsive teaching among secondary teachers and should inform future professional development to this end.

Furthermore, the study provides insight into teachers’ perceptions of their ability to implement culturally responsive teaching (CRT) during a time of severe crisis. Evidence in many fields of research—including business, health, economics, government, and religion—indicates that studying extreme situations can provide valuable insight that can be applicable in other less extreme contexts (Chen, 2016; Kreiner et al., 2009; Murtazashvili, 2019). The COVID-19-induced emergency online learning of Fall 2020 constituted such an extreme situation, and the present study attempted to uncover insight from the particular perceptions and experiences of the secondary teachers who participated that would be helpful to other teachers in other situations even in post-COVID education.

Summary

The present study has strong implications for understanding and building teacher self-efficacy in providing culturally responsive teaching (CRT), which in turn has strong implications for improving academic success for all students. Using an explanatory-sequential mixed-methods design enabled a deeper look into secondary teachers’ self-efficacy beliefs related to their ability to implement practices that are aligned with CRT.
While other researchers have investigated CRT self-efficacy (CRTSE), none have done so within the context of emergency online learning during a global pandemic.

The present study’s investigation of the CRTSE of secondary teachers in one specific school district during the emergency online learning of the Fall 2020 semester serves to widen the angle of understanding the difficulties and successes that teachers experience as they attempt to provide CRT in new learning contexts amid global crises and beyond. Studying the perceptions and practices of secondary teachers during this time of crisis in terms of cultural responsiveness illuminated new perspectives on effectively reaching and teaching students—especially vulnerable populations such as English learners and students with disabilities—in general. These results provide insight into how the experiences of these secondary teachers during this period of emergency remote learning can help educators moving forward post-COVID and contribute to a growing body of literature concerned with supporting the development of teachers and researchers aiming to better serve diverse student populations.
### APPENDIX A

**Culturally Responsive Teaching Terminology**

<table>
<thead>
<tr>
<th></th>
<th>EBSCO (exact phrase; all fields; limited to peer-reviewed articles in education databases)</th>
<th>Google Scholar (exact phrase; excluding patents and citations)</th>
<th>JSTOR (exact phrase; limited to 174 education journals)</th>
<th>ProQuest Direct (exact phrase; all peer-reviewed sources)</th>
<th>TOTAL occurrences of all four databases</th>
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<tr>
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APPENDIX B

IRB Approval Email

IRB-FY2021-146 - Initial: Initial Submission - Expedited - St. John's
irbstjohns@stjohns.edu <irbstjohns@stjohns.edu>
Mon 2/1/2021 10:22 AM
To: Jo R. Hawke <johawke18@my.stjohns.edu>; stewarto@stjohns.edu <stewarto@stjohns.edu>

Federal Wide Assurance: FWA00009066

Feb 1, 2021 10:22:53 AM EST

PI: Jo Hawke
CO-PI: Olivia Stewart
Education Specialties

Re: Expedited Review - Initial - IRB-FY2021-146 THE SELF-EFFICACY OF CULTURALLY RESPONSIVE TEACHING AMONG SECONDARY TEACHERS DURING EMERGENCY ONLINE LEARNING

Dear Jo Hawke:

The St John’s University Institutional Review Board has rendered the decision below for THE SELF-EFFICACY OF CULTURALLY RESPONSIVE TEACHING AMONG SECONDARY TEACHERS DURING EMERGENCY ONLINE LEARNING. The approval is effective from February 1, 2021 through January 31, 2022

Decision: Approved

PLEASE NOTE: If you have collected any data prior to this approval date, the data must be discarded.

Selected Category: 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Sincerely,

Raymond DiGiuseppe, PhD, ABPP
Chair, Institutional Review Board
Professor of Psychology

Marie Nitopi, Ed.D.
IRB Coordinator
APPENDIX C

Permission to Use CRTSE Scale

Dear Researcher:

You have my permission to use the Culturally Responsive Teaching Self-Efficacy Scale, the Culturally Responsive Teaching Outcome Expectations Scale, and/or the Culturally Responsive Classroom Management Self-Efficacy Scale in your research. A copy of the instruments are attached. Request for any changes or alterations to the instrument should be sent via email to kamau.siwatu@ttu.edu. When using the instrument(s) please cite accordingly.

- Culturally Responsive Teaching Self-Efficacy Scale

- Culturally Responsive Teaching Outcome Expectations Scale

- Culturally Responsive Classroom Management Self-Efficacy Scale

Best wishes with your research.

Sincerely,

Kamau Oginga Siwatu, PhD
Professor of Educational Psychology
APPENDIX D

Culturally Responsive Teaching Self-Efficacy Survey

Part 2 of The Culturally Responsive Teaching Self-Efficacy Survey is adapted from Siwatu’s (2007) Culturally Responsive Teaching Self-Efficacy Scale. The entire survey is available online: https://www.surveymonkey.com/r/HawkeCRTSES

Culturally Responsive Teaching Self-Efficacy Survey

Thank you so much for taking the time to complete my dissertation survey!

My research focuses on teacher self-efficacy of culturally responsive teaching during emergency online learning in Fall 2020, so please consider these experiences as you complete the survey.

Part 1 of this survey is information about you, your experiences and teaching background, and your students during emergency online learning in Fall 2020. Part 2 is based on Siwatu’s (2007) Culturally Responsive Teaching Self-Efficacy scale, which will ask you to rate how confident you felt in your ability to complete tasks related to teaching.

First, please read through the consent form below and acknowledge your consent.

CONSENT FORM

Dear Teacher:

You have been invited to take part in a research study designed to learn more about the self-efficacy of culturally responsive teaching among secondary teachers during emergency online learning. This study will be conducted by Jo Hawke, Department of Education Specialties, St. John’s University, as part of her doctoral dissertation. Her faculty sponsor is Dr. Olivia Stewart, Assistant Professor of Literacy, Department of Education Specialties, St. John’s University.

This research study will consist of two phases: (1) a survey phase and (2) an interview phase. All participants will be involved in the survey phase, but only a limited number of participants will be involved in the interview phase. In the survey, you will be asked about your willingness to participate in the interview phase of this study.

If you agree to participate in this study, you will be asked to do the following:
1. Complete an online survey about your background and teaching beliefs and experiences

If you agree to participate in this study, you may also be asked to do the following:

2. Take part in an online interview concerning your background and teaching beliefs and experiences
3. Take part in an online follow-up interview related to your background and teaching beliefs and experiences
4. Provide materials related to your teaching experiences

Participation in the survey phase of this research study will involve approximately 20 minutes of your time. Participation in both phases of this research study will involve approximately two hours of your time: approximately 20 minutes to complete the survey; no more than 60 minutes for the interview; no more than 30 minutes for the follow-up interview; and approximately 10 minutes for providing course materials related to your teaching experiences.

Participation in this study is completely voluntary. You may refuse to participate or withdraw at any time without penalty. You have the right to skip or not answer any questions you prefer not to answer in the survey or interview(s). Interview(s) will be conducted remotely via video conferencing and will be recorded. If you participate in the interview phase of this study, you may ask to review your recording(s) and request that all or any portion of the recording(s) be destroyed. There are no known risks associated with your participation in this research study beyond those of everyday life.
If there is anything about the study or your participation that is unclear or that you do not understand or if you have questions or wish to report a research-related problem, you may contact me, Jo Hawke

You will receive a link to your survey answers via email after you submit the survey. You may also wish to copy and paste this consent form for your records.

Sincerely,

Jo Hawke

PhD Candidate, St. John's University | jo.hawke18@stjohns.edu

**AGREEMENT TO PARTICIPATE:** By entering your NAME (First Last) below, you acknowledge that you have read the information in the Consent Form above and agree to participate in this research with your responses to this survey and with the knowledge that you are free to withdraw your participation at any time without penalty.

---

<table>
<thead>
<tr>
<th>Part 1</th>
</tr>
</thead>
</table>

Part 1 of this survey is information about you, your experiences and teaching background, and your students during emergency online learning in Fall 2020.

**Email Address:**

Email Address: [mask]
Are you willing to participate in follow-up video-recorded interview(s) at a later date to discuss your answers to this survey?

- Yes
- No

What is your gender?

What is your ethnicity?

What is your age?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
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<th>What is your highest level of education?</th>
</tr>
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</tr>
<tr>
<td>☐ Bachelor's degree</td>
</tr>
<tr>
<td>☐ Some graduate work</td>
</tr>
<tr>
<td>☐ Master's degree</td>
</tr>
<tr>
<td>☐ Some post-graduate work</td>
</tr>
<tr>
<td>☐ Doctoral degree</td>
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</tbody>
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<table>
<thead>
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<th>How many years have you been teaching?</th>
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<td>☐ 2-4 years</td>
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<td>☐ 5-9 years</td>
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<td>☐ 10-14 years</td>
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<td>☐ 15+ years</td>
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<th>What is your native language?</th>
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<th>Can you speak and understand any language(s) other than English?</th>
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<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If you answered &quot;yes&quot; to the previous question, which language(s) do you also speak and understand?</th>
</tr>
</thead>
</table>
### At which of these school(s) did you teach in Fall 2020? (Choose all that apply.)

- [ ] [ ] [ ] [ ]

### Which content areas did you teach in Fall 2020? (Choose all that apply.)

- [ ] CTE - Business / Career / Technology
- [ ] CTE - Family / Medical
- [ ] CTE - Military / Corrections / Law
- [ ] CTE - Trade / Industrial
- [ ] English / Language Arts
- [ ] Fine Arts / Drama
- [ ] Foreign Language
- [ ] History / Social Studies
- [ ] Mathematics
- [ ] Music / Band / Chorus / Orchestra
- [ ] Physical / Health Education
- [ ] Science
- [ ] Special Education
- [ ] Other (please specify)

[Response Box]

111
Part 2

Part 2 of this survey is based on Siwatu’s (2007) Culturally Responsive Teaching Self-Efficacy scale. You will be asked to rate how confident you felt in your ability to complete certain tasks during the Fall 2020 semester. All tasks are related to teaching. You will be able to rate your confidence on a scale of 0 (not confident at all) to 100 (completely confident).

Used with the author’s permission:

1. I was able to adapt instruction to meet the needs of my students in Fall 2020.
2. I was able to obtain information about my students’ academic strengths in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

3. I was able to determine whether my students like to work alone or in a group in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

4. I was able to determine whether my students feel comfortable competing with other students in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

5. I was able to identify ways that the school culture (e.g., values, norms, and practices) is different from my students’ home culture in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

6. I was able to implement strategies to minimize the effects of the mismatch between my students’ home culture and the school culture in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

7. I was able to assess student learning using various types of assessments in Fall 2020.

<table>
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<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>
8. I was able to obtain information about my students’ home life in Fall 2020.

9. I was able to build a sense of trust in my students in Fall 2020.

10. I was able to establish positive home-school relations in Fall 2020.

11. I was able to use a variety of teaching methods in Fall 2020.

12. I was able to develop a community of learners when my class consisted of students from diverse backgrounds in Fall 2020.

13. I was able to use my students’ cultural background to help make learning meaningful in Fall 2020.
<table>
<thead>
<tr>
<th>Question</th>
<th>Confidence Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. I was able to use my students’ prior knowledge to help them make sense of new information in Fall 2020.</td>
<td>No confidence at all</td>
</tr>
<tr>
<td>15. I was able to identify how the ways students communicate at home may differ from the school norms in Fall 2020.</td>
<td>No confidence at all</td>
</tr>
<tr>
<td>16. I was able to obtain information about my students’ cultural background in Fall 2020.</td>
<td>No confidence at all</td>
</tr>
<tr>
<td>17. I was able to teach students about their cultures’ contributions to science in Fall 2020.</td>
<td>No confidence at all</td>
</tr>
<tr>
<td>18. I was able to greet English Learners with a phrase in their native language in Fall 2020.</td>
<td>No confidence at all</td>
</tr>
<tr>
<td>19. I was able to design a classroom environment using displays that reflect a variety of cultures in Fall 2020.</td>
<td>No confidence at all</td>
</tr>
</tbody>
</table>
20. I was able to develop a personal relationship with my students in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. I was able to obtain information about my students’ academic weaknesses in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

22. I was able to praise English Learners for their accomplishments using a phrase in their native language in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23. I was able to identify ways that standardized tests may be biased towards linguistically diverse students in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. I was able to communicate with parents regarding their child’s educational progress in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25. I was able to structure parent-teacher conferences so that the meeting was not intimidating for parents in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
26. I was able to help students to develop positive relationships with their classmates in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

27. I was able to revise instructional material to include a better representation of cultural groups in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

28. I was able to critically examine the curriculum to determine whether it reinforced negative cultural stereotypes in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

29. I was able to design a lesson that showed how other cultural groups have made use of mathematics in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

30. I was able to model classroom tasks to enhance English Learners’ understanding in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>

31. I was able to communicate with the parents of English Learners regarding their child’s achievement in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
</table>
32. I was able to help students feel like important members of the classroom in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

33. I was able to identify ways that standardized tests may be biased towards culturally diverse students in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

34. I was able to use a learning preference inventory to gather data about how my students like to learn in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

35. I was able to use examples that were familiar to students from diverse cultural backgrounds in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

36. I was able to explain new concepts using examples that are taken from my students’ everyday lives in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

37. I was able to obtain information regarding my students’ academic interests in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
38. I was able to use the interests of my students to make learning meaningful for them in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

39. I was able to implement cooperative learning activities for those students who like to work in groups in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

40. I was able to design instruction that matched my students’ developmental needs in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

41. I was able to teach students about their cultures’ contributions to society in Fall 2020.

<table>
<thead>
<tr>
<th>No confidence at all</th>
<th>Moderately confident</th>
<th>Completely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

District Administration Approval Email

Attn: St. John’s Institutional Review Board

I have reviewed Jo Hawke’s approved IRB research protocol, including any letters of consent or assent, titled “The Self-Efficacy of Culturally Responsive Teaching Among Secondary Teachers During Emergency Online Learning.” I understand what she is asking of the individuals and grant her permission to conduct her study at __________with __________. I have the authority to do so.

If I have any further questions about this research study I understand that Jo Hawke can be reached at __________. I also understand that if I have any questions regarding this IRB approval or the rights of research participants I can contact Raymond DiGiuseppe, Ph.D., Chair, St. John’s Institutional Review Board, at (718) 990-1440 or via e-mail at digiuse@stjohns.edu.

[Redacted] Executive Director for Accountability and School Improvement

[Redacted] 3/19/21 (Date)
APPENDIX F

Recruitment Email

RECRUITMENT EMAIL

Subject: Dissertation Study – Your Participation Is Requested

Hi! My name is Jo Hawke. I’ve been teaching for more than 20 years. I taught English at [redacted] for about 15 years until I started working as an EL Specialist in 2019. Since then, I have been working with K-12 English learners in multiple schools.

I’m currently working on my PhD in literacy with St. John’s University and would really appreciate your participation in my dissertation study. My research is focused on teacher beliefs related to culturally responsive teaching during emergency online teaching. I am conducting a survey and a limited number of follow-up interviews. Participation is strictly voluntary.

The survey is estimated to take you 20 minutes to complete, but there are very few “written” answers necessary. It is separated into two parts. Questions about your background and teaching experiences are followed by a series of statements that you are asked to rate based on how confident you were about performing the tasks during the online teaching of Fall 2020.

There is a question about your willingness to participate in the follow-up interview(s), so you can feel free to complete the survey without committing yourself further—although I hope you will consider being open to the interview phase, too. :) For more information about my study, see the consent form at the top of the survey.

To complete the survey, click the “Begin Survey” button at the bottom of this email. If you have any questions or concerns at any time, please let me know.

Thank you so much for your time and consideration!

Sincerely,

Jo Hawke

PhD Candidate, St. John's University | jo.hawke18@stjohns.edu

[A “Begin Survey” link will appear here.]
## APPENDIX G

Descriptive Statistics for Items on the CRTSE Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SE</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, how confident are you in your ability to teach students from diverse backgrounds during “normal” (face-to-face) classes?</td>
<td>39</td>
<td>29</td>
<td>100</td>
<td>80.33</td>
<td>2.941</td>
<td>18.370</td>
</tr>
<tr>
<td>1. Adapt instruction to meet the needs of my students</td>
<td>38</td>
<td>36</td>
<td>100</td>
<td>71.82</td>
<td>2.986</td>
<td>18.408</td>
</tr>
<tr>
<td>2. Obtain information about my students’ academic strengths</td>
<td>39</td>
<td>23</td>
<td>100</td>
<td>66.15</td>
<td>3.878</td>
<td>24.217</td>
</tr>
<tr>
<td>3. Determine whether my students like to work alone or in groups</td>
<td>37</td>
<td>1</td>
<td>100</td>
<td>61.57</td>
<td>4.733</td>
<td>28.792</td>
</tr>
<tr>
<td>4. Determine whether my students feel comfortable competing with other students</td>
<td>38</td>
<td>1</td>
<td>100</td>
<td>54.66</td>
<td>4.755</td>
<td>29.311</td>
</tr>
<tr>
<td>5. Identify ways that the school culture (e.g., values, norms, and practices) is different from my students’ home culture</td>
<td>39</td>
<td>1</td>
<td>100</td>
<td>67.23</td>
<td>4.396</td>
<td>27.456</td>
</tr>
<tr>
<td>6. Implement strategies to minimize the effects of mismatch between students’ home culture and school culture</td>
<td>39</td>
<td>2</td>
<td>100</td>
<td>55.92</td>
<td>3.821</td>
<td>23.863</td>
</tr>
<tr>
<td>7. Assess student learning using various types of assessments</td>
<td>39</td>
<td>19</td>
<td>100</td>
<td>69.64</td>
<td>3.496</td>
<td>21.831</td>
</tr>
<tr>
<td>8. Obtain information about my students’ home life</td>
<td>38</td>
<td>1</td>
<td>100</td>
<td>59.63</td>
<td>4.391</td>
<td>27.069</td>
</tr>
<tr>
<td>9. Build a sense of trust in my students</td>
<td>39</td>
<td>8</td>
<td>100</td>
<td>77.59</td>
<td>3.735</td>
<td>23.328</td>
</tr>
<tr>
<td>10. Establish positive home-school relationships</td>
<td>39</td>
<td>11</td>
<td>100</td>
<td>67.26</td>
<td>4.395</td>
<td>27.449</td>
</tr>
<tr>
<td>11. Use a variety of teaching methods</td>
<td>39</td>
<td>11</td>
<td>100</td>
<td>74.38</td>
<td>3.920</td>
<td>24.483</td>
</tr>
<tr>
<td>12. Develop a community of learners when my class</td>
<td>39</td>
<td>5</td>
<td>100</td>
<td>67.79</td>
<td>4.425</td>
<td>27.631</td>
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<tr>
<td></td>
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<td></td>
<td></td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Use my students’ cultural background to help make learning meaningful</td>
<td>38</td>
<td>13</td>
<td>100</td>
<td>65.84</td>
<td>4.293</td>
</tr>
<tr>
<td>14.</td>
<td>Use my students’ prior knowledge to help them make sense of new information</td>
<td>38</td>
<td>2</td>
<td>100</td>
<td>69.87</td>
<td>4.455</td>
</tr>
<tr>
<td>15.</td>
<td>Identify ways how students communicate at home may differ from the school norms</td>
<td>38</td>
<td>1</td>
<td>100</td>
<td>68.71</td>
<td>4.533</td>
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<tr>
<td>16.</td>
<td>Obtain information about my students’ cultural backgrounds</td>
<td>39</td>
<td>2</td>
<td>100</td>
<td>64.36</td>
<td>4.371</td>
</tr>
<tr>
<td>17.</td>
<td>Teach students about their cultures’ contributions to science</td>
<td>33</td>
<td>0</td>
<td>100</td>
<td>38.85</td>
<td>5.769</td>
</tr>
<tr>
<td>18.</td>
<td>Greet English language learners with a phrase in their own language</td>
<td>33</td>
<td>0</td>
<td>100</td>
<td>43.67</td>
<td>6.371</td>
</tr>
<tr>
<td>19.</td>
<td>Design a classroom environment that reflects a variety of cultures</td>
<td>35</td>
<td>0</td>
<td>100</td>
<td>40.54</td>
<td>5.961</td>
</tr>
<tr>
<td>20.</td>
<td>Develop a personal relationship with my students</td>
<td>38</td>
<td>2</td>
<td>100</td>
<td>74.82</td>
<td>4.196</td>
</tr>
<tr>
<td>21.</td>
<td>Obtain information about my students’ academic weaknesses</td>
<td>39</td>
<td>17</td>
<td>100</td>
<td>71.77</td>
<td>3.995</td>
</tr>
<tr>
<td>22.</td>
<td>Praise English language learners using a phrase in their native language</td>
<td>32</td>
<td>0</td>
<td>100</td>
<td>30.84</td>
<td>6.041</td>
</tr>
<tr>
<td>23.</td>
<td>Identify ways that standardized tests may be biased toward linguistically diverse students</td>
<td>34</td>
<td>0</td>
<td>100</td>
<td>45.82</td>
<td>5.991</td>
</tr>
<tr>
<td>24.</td>
<td>Communicate with parents regarding their child’s educational progress</td>
<td>39</td>
<td>13</td>
<td>100</td>
<td>74.46</td>
<td>4.183</td>
</tr>
<tr>
<td>25.</td>
<td>Structure parent-teacher conferences so that the meeting is not intimidating for parents</td>
<td>36</td>
<td>0</td>
<td>100</td>
<td>72.39</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>26. Help students to develop positive relationships with their classmates</td>
<td>39</td>
<td>3</td>
<td>100</td>
<td>71.18</td>
<td>4.563</td>
<td>28.496</td>
</tr>
<tr>
<td>27. Revise instructional materials to include a better representation of cultural groups</td>
<td>37</td>
<td>0</td>
<td>100</td>
<td>52.00</td>
<td>5.304</td>
<td>32.262</td>
</tr>
<tr>
<td>28. Critically examine curriculum to determine whether it reinforces negative cultural stereotypes</td>
<td>36</td>
<td>0</td>
<td>100</td>
<td>59.31</td>
<td>5.704</td>
<td>34.227</td>
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<tr>
<td>29. Design a lesson that shows how other cultural groups have made use of mathematics</td>
<td>29</td>
<td>0</td>
<td>100</td>
<td>32.10</td>
<td>6.706</td>
<td>36.112</td>
</tr>
<tr>
<td>30. Model classroom tasks to enhance English language learners’ understanding</td>
<td>36</td>
<td>0</td>
<td>100</td>
<td>50.28</td>
<td>5.203</td>
<td>31.215</td>
</tr>
<tr>
<td>31. Communicate with parents of English language learners regarding their child’s achievement</td>
<td>37</td>
<td>0</td>
<td>100</td>
<td>53.14</td>
<td>5.091</td>
<td>30.966</td>
</tr>
<tr>
<td>32. Help students feel like important members of the classroom</td>
<td>39</td>
<td>6</td>
<td>100</td>
<td>78.59</td>
<td>4.229</td>
<td>26.407</td>
</tr>
<tr>
<td>33. Identify ways that standardized tests may be biased toward culturally diverse students</td>
<td>31</td>
<td>0</td>
<td>100</td>
<td>51.03</td>
<td>6.502</td>
<td>36.202</td>
</tr>
<tr>
<td>34. Use a learning preference inventory to gather data about how my students like to learn</td>
<td>35</td>
<td>0</td>
<td>100</td>
<td>60.46</td>
<td>6.047</td>
<td>35.772</td>
</tr>
<tr>
<td>35. Use examples that are familiar to students from diverse cultural backgrounds</td>
<td>39</td>
<td>0</td>
<td>100</td>
<td>61.33</td>
<td>4.907</td>
<td>30.644</td>
</tr>
<tr>
<td>36. Explain new concepts using examples that are taken from students’ everyday lives</td>
<td>39</td>
<td>0</td>
<td>100</td>
<td>68.18</td>
<td>4.725</td>
<td>29.506</td>
</tr>
<tr>
<td>37. Obtain information regarding my students’ academic interests</td>
<td>39</td>
<td>0</td>
<td>100</td>
<td>66.85</td>
<td>4.640</td>
<td>28.980</td>
</tr>
</tbody>
</table>
38. Use the interests of my students to make learning meaningful to them
39. Implement cooperative learning activities for those students who like to work in groups
40. Design instruction that matches my students’ developmental needs
41. Teach students about their cultures’ contributions to society

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
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<td>39</td>
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<td>100</td>
<td>71.77</td>
<td>3.953</td>
</tr>
<tr>
<td>41</td>
<td>37</td>
<td>0</td>
<td>100</td>
<td>53.97</td>
<td>5.870</td>
</tr>
</tbody>
</table>

*Note. N=39.*
**APPENDIX H**

**Interview Protocol**

**Teacher Self-Efficacy of Culturally Responsive Teaching**

Adapted from Little’s (2020) qualitative phenomenological CRTSE study

<table>
<thead>
<tr>
<th>Participant Pseudonym:</th>
<th>Start Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>End Time:</td>
</tr>
</tbody>
</table>

**Pre-Interview Script:**

Thank you for participating in the interview phase of my study. As you know, the purpose of my research study is to explore the self-efficacy of culturally responsive teaching among secondary teachers during emergency online learning. You already completed a survey that gives me an understanding of your perceptions of your ability to provide culturally responsive teaching. In this interview, I would like to investigate further.

The interview will last no longer than one hour. I will be asking you about your teaching background and experiences specifically related to culturally responsive teaching. Some of the questions will relate to your perceptions in general. Other questions will relate specifically to the emergency online learning of Fall 2020. The questions will be clearly identified in either instance.

You received a copy of the consent form when you completed the online survey.

[Answer any questions.]

In the consent form you indicated that I have [do not have] your permission to record this video interview. Are you still OK [not OK] with my recording [not recording] our video interview today? [___Yes ___No]

[If agreeing to video recording] Thank you! Please let me know if at any point you want me to stop the video recording or keep something you said off the record.

[If not agreeing to video recording] Thank you for letting me know. I will only record the audio of our conversation. Please let me know if at any point you want me to keep something you said off the record.

Before we begin the interview, do you have any questions or concerns?

[If yes: Discuss.]

If you have any questions [other questions] at any point in this interview, feel free to ask me at any time.

**Interview Question 1:**

1a. Based on your experiences, how would you define culturally responsive teaching?

1b. In general, how often do you implement culturally responsive teaching as you have defined it?
1c. During the online teaching of Fall 2020, did your implementation of culturally responsive teaching change?
   
   [If yes to change] Can you share an experience of this implementation?

**Interview Question 2:**

2a. In general, do you think knowing the differences between students’ home culture and school culture can improve achievement?
   
   [If yes] In what way can this knowledge improve achievement? Share an experience.
   
   [If no] Do you have an experience to share that may have led you to your beliefs?

2b. In general, are you comfortable with obtaining information about your students’ home life?
   
   [If yes] Can you share an experience in which you obtained such information?
   
   [If no] Is there anything that could help you become comfortable?

2c. During the online teaching of Fall 2020, did you try to identify ways the school culture is different from your students’ home culture? For example, are the norms, values, or practices different?
   
   [If yes] Can you give an example of a difference you identified?
   
   [If no] What experiences or beliefs have kept you from identifying differences?

2d. During the online teaching of Fall 2020, did you implement strategies to minimize the effects of the difference between your students’ home culture and the school culture?
   
   [If yes] Can you share your experiences with implementing these strategies?
   
   [If no] What experiences do you think have kept you from trying these strategies?

**Interview Question 3:**

3a. During the online teaching of Fall 2020, did you communicate with parents of diverse students?
   
   [If yes] What were your experiences with parent communication during this time?
   
   [If no] What do you think could have contributed to increased communication?

3b. In general, do you believe that conveying the message that parents are an important part of the classroom would increase parent participation? Why or why not?

**Interview Question 4:**

4a. During the online teaching of Fall 2020, did you determine students’ prior knowledge?
   
   [If yes] How did you determine students’ prior knowledge? How did this information inform instruction? Was this process different during the online teaching of Fall 2020 than in previous years?
   
   [If no] What do you think could have contributed to your use of this practice?

4b. In general, do you believe that differentiation of instruction is important? Why or why not?

**Interview Question 5:**
5a. During the online teaching of Fall 2020, what was your greatest success in teaching diverse students?

5b. During the online teaching of Fall 2020, what was your greatest challenge in teaching diverse students?

<table>
<thead>
<tr>
<th>Post-Interview Script:</th>
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</thead>
<tbody>
<tr>
<td>I may need to contact you at a later date for a brief follow-up interview. This follow-up interview will also be online and will last no longer than 20 minutes. Is this acceptable?</td>
</tr>
<tr>
<td>[If yes] Thank you! I really appreciate your taking the time to speak with me about your teaching background and experiences and your willingness to continue to participate in my research. Do you have any questions or concerns?</td>
</tr>
<tr>
<td>[If yes: Discuss.]</td>
</tr>
<tr>
<td>[If no] Thanks for participating in the interview phase of my study. I really appreciate your taking the time to speak with me about your teaching background and experiences. Do you have any questions or concerns?</td>
</tr>
<tr>
<td>[If yes: Discuss.]</td>
</tr>
</tbody>
</table>
APPENDIX I

Selected Analytic Memos

<table>
<thead>
<tr>
<th>Date</th>
<th>Note</th>
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<tbody>
<tr>
<td>2/21/2021</td>
<td>Ms. [redacted] replied to my email expressing support for my study. None of the other principals have said anything. I need to email Dr. [redacted] again to see if I can send the survey now or if I have to wait until I hear from each school principal. (I should have asked about this piece of the protocol up front!)</td>
</tr>
<tr>
<td>2/22/2021</td>
<td>Dr. [redacted]: “No one said ‘No,’ so we are moving forward.”</td>
</tr>
<tr>
<td>3/3/2021</td>
<td>[redacted] replied to my invitation for teachers to complete the CRTSE study. She wants to know if nurses can participate. 1-make a note of this for a future study. 2-it would be better to send the invitation email only to the target population. (I did ask Dr. [redacted] about this earlier, but she said I should use the whole-school email.)</td>
</tr>
<tr>
<td>3/3/2021</td>
<td>[redacted] messaged me: “On your survey, me being “able to do it” is definitely different than “I did it” I think. (Interesting point!)</td>
</tr>
<tr>
<td>3/4/2021</td>
<td>[redacted] replied to the invitation to ask if she could participate because she doesn’t have any ESL students in her classes right now. I told her every teacher who taught students in a secondary school in the city is welcome to participate.</td>
</tr>
<tr>
<td>3/10/2021</td>
<td>A speech teacher emailed me to ask about participating. I told her every teacher who taught students in a secondary school in the city is welcome to participate.</td>
</tr>
<tr>
<td>3/17/2021</td>
<td>Today I sent out the reminder email to please complete the survey. I also added a notice about completing the consent form at the beginning. So many people already have skipped that part. I wish I could go back and redo how I configured that part! I should have just said, “Completion of this survey indicates that I am providing consent to participate in this study” or something similar. Asking participants to type their name in the box under the consent form as a means of giving consent just opened me up to having a lot of surveys that I can’t use. 😔 Definitely something to remember for the future!</td>
</tr>
<tr>
<td>3/17/2021</td>
<td>[redacted] emailed me to ask if she has to do the interview if she does the survey. I replied that she was free to opt out of the interview phase. I also went back to reread that part of my consent form. I think it is very clear, but it is such a long form that I wonder if people are reading it carefully.</td>
</tr>
<tr>
<td>4/14/2021</td>
<td>The low CRTSE at [redacted] is not replying to my emails again. It’s time to select another participant for this role. Interviews are starting tomorrow!!!</td>
</tr>
<tr>
<td>4/15/2021</td>
<td>[redacted] is so funny! I can pretty much quote her verbatim in so many spots. It reminds me of the rocks and rivers story in journalism class at [redacted]. She is definitely a river! We didn’t even get through</td>
</tr>
<tr>
<td>Date</td>
<td>Entry</td>
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<tr>
<td>4/17/2021</td>
<td>I’m so bummed that [redacted] couldn’t get Google Meet to work. The video from the phone camera is not so great. And it was outside, so that made it even harder to hear. Got to work with what I’ve got!</td>
</tr>
<tr>
<td>6/7/2021</td>
<td>I’m pulling all of these transcripts together for coding. I need to stick to the plan. Start with the 4 elements of CRT. I need to find words and phrases that illustrate those elements in action. I’m wondering if I closed myself in a little too much with my coding plan. Every time I go back to reading, my mind wanders into all of these other codes for what they’re saying.</td>
</tr>
<tr>
<td>6/12/2021</td>
<td>It is so interesting reading and rereading these interviews. After listening to them so carefully over and over and reading them so many times, it’s like these teachers’ voices are imprinted on my brain. I can hear their hesitations.</td>
</tr>
<tr>
<td>6/21/2021</td>
<td>Coding these transcripts in Excel is not working for me. I’m going to try to pull them all together in one big Word document and use the comments like I did for my qualitative class project.</td>
</tr>
<tr>
<td>7/10/2021</td>
<td>The days are going by and still there’s so much to do. I’m moving from piece to piece to piece, but it’s like I’m digging holes or something. I have to stick to the plan.</td>
</tr>
<tr>
<td>7/18/2021</td>
<td>I know which in-vivo codes I’m tagging without even having to reread anything. LOL And then I can scan again for surprising codes.</td>
</tr>
<tr>
<td>10/7/2021</td>
<td>For some reason, I’ve been working with all this quantitative data for months now and just today realized that I may need to do something about all this missing data. EEK – emailing Dr. Stewart and Dr. Cook.</td>
</tr>
<tr>
<td>10/8/2021</td>
<td>I’ve been thinking and researching so much about missing values that I’ve got a lot of ideas about how to make it better in the future. Definitely a bigger population would help, so that any participants with missing values can be removed. But of course, there are drawbacks to that strategy, too. Making questions required is a possibility, but again, there are major drawbacks to doing that.</td>
</tr>
</tbody>
</table>
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[Redacted]


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